The Assam Factories Rules, 1950

ASSAM
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Chapter I
Preliminary

1. Short title, extent and commencement.

(1)These rules may be cited as the Assam Factories Rules, 1950.(2)These rules shall come into force at once except the Rules 29 to 33,53 62. 64 to 75 and 94 which shall come into force on such dates as are specified therein.

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 opening at times when the temperature of the room is 80 degrees fahrenheit or more, shall not be deemed to be artificial humidification.(d)"Belt" includes any driving strap or rope.(e)"Degrees" (of temperature) means degrees on the fahrenheit scale.(f)"District Magistrate" includes such other official as may be appointed by the State Government in that behalf.(g)"Fume" 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 State 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 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. Submission of plan.

- The State Government or the Chief Inspector of Factories may require for the purposes of the Act, submission of plans of any factory which was either in existence on the date of commencement of the Act or which has not been constructed or extended since than. Such plans shall be drawn to the scale showing-(a)the site of the factory and immediate surrounding including adjacent buildings and other structures, roads, drains, etc.;(b)the plan, elevation and necessary cross section of the factory buildings indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire and the position of plant and machinery, aisles and passage ways ; and(c)such other particulars as the State Government or the Chief Inspector of Factories, as the case may be, may require.

3A. Approval of plans.

(1)No site shall be used for the location of a factory or no building in a factory be construed a factory unless previous permission in writing is obtained from the State Government or the Chief Inspector of Factories. The previous permission of the Chief Inspector of factories shall also be obtained for the installation of additional machinery or for the installation of prime movers exceeding the horsepower already installed in the factory.Application for such permission shall be made in Form 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 duplicate drawn to scale showing-(i)the site of the factory and immediate surroundings including adjacent buildings and other structures, roads, drains, etc.; and(ii)the plan, elevation and necessary cross-section to 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 the plant and machinery, aisles and passage ways :Provided that for a site for construction of a factory or construction of a new factory within a Municipality or other than a municipality of a notified area, the applicant shall, while submitting the application to the Chief Inspector of Factories, Assam, simultaneously apply, with intimation to the Chief Inspector of Factories, to the Chairman, Municipal Board/Town Committee or President Gaon Panchayat for approval. If the above authorities neglect or omit for two months after the receipt of such an application to sanction or refuse permission they shall be deemed to have sanctioned the proposed site for construction of a factory or construction of a factory absolutely and the Chief Inspector of Factories, Assam may proceed with the consideration of the application forthwith.(2)If the Chief Inspector is satisfied that plans are in consonance with the requirements 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 him to give such approval.(3)No deviation of any kind from approved Plans shall be made without the written permission of the Chief Inspector.

3B. Certificate of stability.

- No manufacturing process shall be carrierd on in any building of a factory constructed, reconstructed or extended or in any building which has been taken into use as factory or part of a factory until a certificate of stability in respect of that building in the form given below has been sent by the occupier or Manager of the factory to the Chief Inspector and accepted by him.Form of Certificate of Stability

1. Name of factory .....

2. Village, town and district in which the factory is situated.....

3. Full postal address of the factory .....

4. Name of occupier of the factory.....

5. Nature of manufacturing process to be carried on in the factory.....

6. Number of floors on which workers will be employed.....

Certified that I have inspected the building/buildings the plans of which have been approved by the Chief Inspector in his letter No.....dated and examined.The various plans including the foundation with special reference to the machinery, plant, etc. that have been installed, I am of opinion that the building/buildings which has/have been constructed/reconstructed/extended taken into use is/are in accordance with the plans approved by the Chief Inspector in his letter mentioned above, that it/they is/are structurally sound, that its/their stability will not be endangered by its/their use as a factory/part of a factory for the manufacture of for which the machinery, plant, etc. installed are intended.Signature.....Qualification.....Address.....Date.....

1. If employed by a Company, association, name and address of the Company or association.

2. The Certificate of stability referred to the sub-rule (1) shall be signed by competent person.

4. Application for registration and grant or renewal of licence and notice of occupation.

- The occupier of every factory, whether in existence at the date of the commencement of the Act or coming for the first time within the scope of the Act, shall submit to the Chief Inspector an application in Form 2 in triplicate prescribed under Sections 6 and 7 ; provided that the occupier of premises in use as a factory on date of commencement of these Rules shall submit such application

within 30 days from the date of commencement of the Rules.

5. Grant of licence.

(1)A licence for a factory shall be granted by the Chief Inspector in Form No. 4 prescribed for the purpose and on payment of the fees specified in the Schedule hereto.(2)Every licence granted or renewed under his Chapter shall remain in force up to the 31st of December of the year for which the licence is granted or renewed.

'A'

Scale of fees payable for Licence and Annual Renewal of Licence by all Electricity Generating, Transforming and Transmitting Stations (Factories).(A)Generating and transforming Stations (Factories)Total installed Generating Capacity in K.W.

		Generating Stations	Transforming (including Conversion Stations)
(1)		(2)	(3)
	K. W.	Rs.	Rs.
Not exceeding.....	50	115	75
.....Do.....	100	225	150
.....Do.....	150	400	300
.....Do.....	300	500	400
.....Do.....	500	600	600
.....Do.....	750	1,000	750
.....Do.....	1,000	1,250	875
.....Do.....	2,500	2,250	1,850
.....Do.....	5,000	3,000	1,650
.....Do.....	10,000	3,750	1,950
.....Do.....	25,000	5,250	2,800
.....Do.....	50,000	8,000	4,000
.....Do.....	75,000	10,000	5,000
.....Do.....	1,00,000	12,900	6,000
Over.....	1,00,000	20,000	12,000

(B)All Transmitting Stations (Factories) Rs. 1,000.Note.-1 H. P. =0.7457 K. W.

'B'

Scale of Fees payable for Licence and Annual Renewal of Licence for Factories defined under Section 85 of the Factories Act, 1948 other than Electricity Generating Transforming and Transmitting Station (Factories) Rs. 75.00.Explanation.-(1) Where a factory has its own electric power generating plant the amount of fees payable for the whole factory shall be the amount obtained by adding the

amount payable for the factory excluding the power generating plant calculated as per Schedule 'A' and that payable for the power generating unit a per Schedule 'B' respectively.Where a factory has its own transforming station the amount of fees payable shall be calculated in a like manner.Where a factory has its own transforming station, as well as transforming station for drawing additional power from an external source, the fee payable shall be the amount obtained by adding the fees which would have been payable for the generating station, transforming station and the rest of the factory, respectively as if they were separate factories.(2)In the calculation of installed capacity all spare, stand-by and emergency machines and plants shall be taken into account, and shall be deemed to be working units and they shall not be excluded merely on the grounds that they were only stand-by spare or emergency units, which are to be operated only on special occasions and in emergencies.(3)Where an electricity generating factory includes a transmitting or converting station or plant meant for receiving transforming, converting or transmitting of electric power supplied from a source outside the Generating Station and which is not meant for transforming, converting or transmitting of power generated in the Generating Station itself the fees payable shall be the total of the fees payable by the generating and transforming (including converting) station calculated separately in accordance with the rate of fees prescribed by the Transmitting Stations.

6. Amendment of licence.

(1)A licensee of a factory shall get his licence amended in case the factory exceeded the limits specified in regard to horse power or the number of men employed.(2)A licence granted under Rule 5 may be amended by Chief Inspector.(3)A licensee who desires to have his licence amended shall submit it to the Chief Inspector with an application stating the nature of the amendment and reasons therefor.(4)The fee for the amendment of a licence shall be five rupees plus the amount (if any) by which the fee that would have been payable if the licence had originally been issued in the amended form exceeds the fee originally paid for the licence.

7. Renewal of licence.

(1)A licence may be renewed by the Chief Inspector.(2)The occupier of every factory shall apply to the Chief Inspector for renewal of his licence not less than 30 days before the date of expiry of the licence, and shall not continue any manufacturing process after that date unless the application for renewal of his licence is duly made.(3)Every application for the renewal of a licence shall be accompanied by the notice of occupation in the prescribed Form No. 2 in triplicate, and shall be made not less than 30 days 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 Chief Inspector renews the licence.(4)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 renewed only on payment of a fee 10 per cent in excess of the fee ordinarily payable for the licence.

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 of five rupees shall 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 licensee shall not be liable to any penalty under the Act for exercising the powers granted to the licensee by the licence during such time 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 destroys, 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 "XXXII-Miscellaneous Social and Developmental Organisation Fees for Registration and Licensing under the Factories Act, 1948."(2)If an application for the grant, renewal or amendment of a licence is rejected, or the fee is paid in excess of the prescribed rate such fee or excess fee paid shall be refunded to the applicant, on a pay order issued by the Chief Inspector of Factories on the district treasury office.

12.

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Chapter II
The Inspecting Staff

13. Powers of Inspector.

- 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 securing the health, safety or welfare of the workers employed in a factory ;(b)in the case of an Inspector who is duly qualified medical practitioner, to carry out such medical examinations as may be necessary for the purposes of his duties under the Act; and(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 the factories in respect of the following, matters, namely :Cleanniness (Section 11), Overcrowding (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 notice (Section 108) :Provided further that-(i)the District Magistrate shall not pass any original orders or remarks under Sections 11, 17 and 38 of the Act but shall limit and confine his orders or remarks under these sections to the points to which the full time Inspector of factories has already directed the attention of Manager or occupier of the factory as the case may be ;(ii)all additional Inspectors except District Magistrates shall report the defects found and remedies suggested for enforcing compliance with requirements of sections referred to above, to the Chief Inspector who shall pass final orders in each case.

13A. Qualifications of an Inspector.

- No person shall be appointed as an Inspector for the purposes of the Act unless he possesses the qualifications as hereunder-(a)he must not be less than 23 years or more than 35 years of age ;(b)he must have-(i)had a good general education up to Intermediate standard of a recognised university ;(ii)secured a degree, or diploma equivalent to a degree of a recognised university, in any branch of Engineering, Technology or Medicine and preferably with practical experience of at least two years in a workshop or a manufacturing concern of good standing and in the case of Medical Inspector an experience of at least two years in a public hospital or factory, medical department or alternatively a diploma in industrial medicine ; and(c)where for a particular post, special knowledge to deal with special problems is required, the Government may, in addition to the basic qualifications, prescribe appropriate qualifications for such a post.

14. Duties of Certifying Surgeons.

(1)For purposes of the examination and certification of young persons who wish to obtain certificates 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 manager of factories situated within the local limits assigned to him. A far as possible, such examination shall be carried out at the factories concerned.(2)The Certifying Surgeon shall issue his certificates in From No. 5. The foil and counterfoil shall be filled in and the left thumb marks 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 counterfoil 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 two years after the issue of the certificate.(3)The Certifying Surgeon shall, upon request by the Chief Inspector, carry out such examination 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 substances 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 by 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 the 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. 17) 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 examination that 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 the 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 purpose 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

15. Cleanliness of walls and ceilings.

(1)Clause (d) of sub-section (1) of Section 11 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)as respects factories or parts of factories specified in Part A of the said Schedule, to work-rooms in which the amount of cubic space allowed for every person employed in the room is less than 500 cubic feet;(ii)as respects factories or parts of factories specified in Part B of the said Schedule, to work rooms in which the amount of cubic space allowed for every person employed in the room is less than 2,500 cubic feet;(iii)to engine-houses, fitting shops, lunch-rooms, canteens, shelters, creches, clock rooms, rest-rooms and wash places ; and(iv)to such parts of walls, sides and tops of passages and staircases as are less than 20 feet above

the floor or stair.(2)If it appears to the Chief Inspector that any part of a 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 of the occupier failing to comply with such requisition within two months from the date of the notice, sub- rule (1) shall cease to apply to such part of a factory, unless the Chief Inspector otherwise determines.

Schedule 3

Part A

Blast furnaces.Brick and tile works in which unglazed brick 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 used only for the storage of articles.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 a 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 or ground.Parts of walls, partitions, ceilings or tops of rooms which are at least 20 feet above the floor.Ceilings or tops of rooms in print works, bleach works or dye works, with the exception 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 foundries in which brass casting is carried on.Gun factories.Ship building works.Those parts of factories where unpainted or unvarnished wood manufactured.

16. 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. 7.

17. 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 sewerage system, prior approval of the arrangements made shall be obtained from the local authority.(2)In the case of a 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.

18. 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 ; and(b)at any time when the wet bulb reading of 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 regards a dry bulb reading intermediate between any two dry bulb readings indicated consecutively in the Schedule when the dry bulb reading does not exceed the wet bulb reading to the extent indicated in relation to the lower of these two dry bulb readings :

Schedule 4

Dry bulb	Wet bulb	Dry bulb	Wet bulb	Dry bulb	Wet bulb
(1)	(2)	(3)	(4)	(5)	(6)
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	87.5
63.0	61.0	80.0	78.0	97.0	88.0
64.0	62.0	81.0	79.0	98.0	88.5
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	68.0	87.0	83.0	104.0	90.5
71.0	69.0	88.0	83.5	105.0	91.0
72.0	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	85.5	109.0	92.0
76.0	74.0	93.0	86.0	110.0	92.0

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 3.5 degrees.

19. Provision of hygrometer.

- In all departments of cotton spinning and weaving mills wherein artificial humidification is adopted, hygrometers shall be provided and maintained in such positions as are approved by the Inspector. The number of hygrometers shall be regulated according to 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 300,000 cubic feet capacity and one extra hygrometer for each 200,000 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 humidification is adopted, and in a position approved by the Inspector for taking hygrometer shade readings.

20. Exemption from maintenance of hygrometers.

- When the Inspector is satisfied that the limits of humidity allowed by the Schedule to Rule 18 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.

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

- A legible copy of the Schedule to Rule 18 shall be affixed near each hygrometer.

22. Temperature to be recorded at each hygrometer.

- At each hygrometer maintained in accordance with Rule 19, correct wet and dry bulb temperatures shall be recorded thrice daily during each working day by competent persons nominated by the Manager and approved by the Inspector.The temperature shall be taken between 7 a. nr. and 9 a. m., between 11a. nr. 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 the prescribed Form No. 6, 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.

23. Specifications of hygrometer.

(1)Each hygrometer shall comprise two mercurial thermometers of wet bulb and dry bulb of similar construction and equal in dimensions, scale and divisions of scale. They shall be mounted on a 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 on or grease.(3)No part of the wet bulb shall be within 3 inches from the dry bulb or less than one 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 sores of the stems shall be such that the position of the lop of the mercury column shall be readily distinguishable at a distance of 2 feet.(6)Each thermometer shall be graduated so that accurate readings may be 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 marking 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.

24. Thermometers to be maintained in efficient order.

- Each thermometer shall be maintained at all time during the period of employment in efficient working order, so as to give accurate indications and in particulars-(a)the wick and the muslin covering of the wet bulb shall be renewed once a week;(b)the reservoir shall be filled 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; and(c)no water shall be applied directly to the wick or covering during the period of employment.

25. An inaccurate thermometer not to be used without fresh certificate.

- If an 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.

26. 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 inches from the floor to the top thermometer stem or in the direct draughts from a fan, window, or ventilating opening.

27. No reading to be taken within 15 minutes of removal of water.

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

28. 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 1st day of November, 1950 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 4-½ inches beyond the our 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 pipe 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.

29. Lighting-Application and commencement.

(1)Subject as in these Rules provided, Rules 29 to 33 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 shall be deemed to require the provision of lighting of a specified standard in any building or structure so constructed that, in the opinion of the Chief Inspector it would not be reasonably practicable to comply with such requirement.(2)Rules 29 to 33 shall come into force in respect of any class or description of factories, on such dates as the State Government may, by notification in the official gazette, appoint in this behalf.

30. Lighting of interior parts.

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

31. Prevention of glare.

(1)Where any source of artificial light in the factory is less than 15 feet above floor level, no part of the light source or of the lighting fitting having a brightness greater than 10 candles 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 degree.(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 small group of operative 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 from the eyes of every person employed at a normal working place, or shall be so placed that part no such person is exposed to glare therefrom.

32. Power of Chief Inspector to exempt.

- Where the Chief Inspector is satisfied in respect of any particular factory or part thereof or in respect of any description of work-room or process that any requirement of Rules 29 to 31 is inappropriate or is not reasonably practicable 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.

33. Exemption from Rule 30.

(1)Nothing in Rule 30 shall apply to the parts of factories specified in Part I of the Schedule annexed hereto.(2)Nothing in sub-rule (1) of Rule 30 shall apply to the factories or part of factories respectively specified in Part II of the said Schedule.

Schedule 5

Part I

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

Part II

Cement works.Works for the crushing and grinding of lime-store.Gas works.Coke oven works.Electrical stations.Flour Mills.Meltings 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.Plot rolling or forging, tampering or annealing of metals.Glass blowing and other working in molten glass.Tar distilling.Petroleum refining and blending.

34. 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 there are workers employed in the factory and such driving water shall be readily available at all times during working hours.

35. Source of supply.

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

36. Storage of water.

- If drinking water is not supplied from tap connected with a public water supply system it shall be kept in suitable vessels and renewed at least daily. All practicable steps shall be taken to preserve the water and vessels from contamination and to keep the vessels scrupulously clean.

37. 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 she sterilized once a week or more frequently if the Inspector by written order so requires, and the date on which sterilizing is carried out shall be recorded :Provided that this requirement shall not apply to any such well or reservoir if water therein is filtered and treated to the satisfaction of the Health Officer before it is supplied for consumption.

38. Report from Health Officer.

- The Inspector may, by order in writing, direct the manage to obtain, at such time or at such intervals as he may direct, a report from the Health Officer as to the fitness for 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.

39. 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 from the 15th April to the 15th September in every year, be cooled by ice or other effective method :Provided that if ice is placed in the drinking water, the ice shall be clean and wholesome and shall be obtained only 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 these 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

should be provided with clean clothes while on duty.Clause (f) shall not apply to any factory in which suitable mechanically operated drinking water refrigerating units are installed to the satisfaction of the Chief Inspector.

40. 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 25 females ;(b)where males are employed, there shall be at least one latrine for every 25 males :Provided that, where the number males employed exceeds 100, 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.

41. Latrine to conform to Public Health requirements.

- Latrines, other than those connected with an efficient water-borne sewage system, shall comply with the requirements of the Public Health Authorities.

42. Privacy of latrines.

- Every latrine shall be under cover and so partioned off as to secure privacy, and shall have a proper door and fastenings.

43. 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 majority of the workers "For men Only" or " For Women Only" as the case may be. The notice shall also bear the figure of a man or woman, as the case may be.

44. Urinal accommodation.

- Urinal accommodation shall be provided for the use of male workers and shall not be less than 2 feet in length for every 50 males ; Provided that where the number of males employed exceeds 500, it shall be sufficient if there is one urinal for every 50 males up to the first 500 employed, and one for every 100 thereafter.In calculating the urinal accommodation requited under this rule any odd number of workers less than 50 or 100, as the case may be, shall be reckoned as 50 or 100.

45. Urinals to conform to public health requirements.

- Urinals, other than those connected with an efficient water-borne sewage 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 Authorities.

46. Certain latrines and urinals to be connected to sewerage system.

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

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

- The walls, ceilings 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 colour-washing is carried out shall be entered in the prescribed Register (Form No.7) :Provided that this rule shall not apply to latrines and urinals, the walls, ceilings 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.

48. Construction and maintenance of drains.

- All drains carrying waste or sullage water shall be constructed in masonary 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.

49. Water taps in latrines.

(1)Where piped water supply is available a 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.

50. Number and location of spittoons.

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

51. 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, cleaned sand, and covered with layer of bleaching powder ;(c)any other type approved by the Chief Inspector.

52. Cleaning of spittoons.

- The spittoons mentioned in clause, (a) of Rule 51 shall be emptied, cleaned and disinfected at least once every day and the spittoons mentioned in clause (b) of Rule 51 shall be cleaned by scrapping out the top layer of sand as often as necessary or at least once every day.

Chapter IV
Safety

53. [Further safety precautions. [Rule 53, Schedules I and III enforced with effect from 1st June, 1951 vide Notification No. GLR 205/5½, dated the 8th June, 1951.]

(1)Without prejudice to the provisions of sub-section (1) of Section 21 in regard to the fencing of machines, the further precautions specified in the Schedules annexed hereto shall apply to the machines noted in each Schedule.(2)This rule shall 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 State Government may, by notification in the official Gazette, appoint in this behalf.

I

(Cotton Textiles)

1. Cotton, Openers, Scutchers, Combined Openers and Scutchers, Scutcher-Lap Machines, Hard Waste Breakers, etc.-(1) All Cotton Openers, Scutchers, Combined Openers and Scutchers, Scutcher-Lap Machines, Hard Waste Breakers and similar machines shall be driven by separate motors or from counter-shafts 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 with effective interlocking arrangements which shall prevent-(a)the covers and doors being opened while the machine is in motion ; and(b)the machine being re-started until the covers and doors are closed :Provided that in respect of doors or 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 arrangement is not provided.(3)In all openers, Combined Openers and Scutchers, Scutchers-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 light, yet prevent contact between any portion of a worker's body and the beater grid bars.

2. Combined Openers and Scutcher, Scutcher-lap, Silver-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 weighted rack is down ; or

(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 resolve and shall render it impossible to Restart the machine until the door has been closed.

4. Speed Frames.-Headstocks shall be fitted with automatic locking arrangement which shall prevent the doors in access to jack box wheels being opened while the machinery is in motion and shall render it impossible to re-start 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 bowls and similar parts, which shall be so fitted and maintained whilst the rollers or bowls are in motion, as to prevent access to the point of contract of the roller of bowls.

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 unclimable fencing with only so many openings as are necessary for access to the shaft for removing cotton seed, cleaning and oiling ; and such openings shall be provided with gates or doors which shall be kept closed and locked.]

III

Wood-working Machinery

1. Definitions.-For the purposes of this Schedule-

(a)"Wood-working machine" means a circular saw, band saw, planing machine, chain mortising machine or vertical spindle moulding machine operating on wood or cork.(b)"Circular saw" means circular saw working in a bench (including a 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 log saw or band re-sawing machine.(d)"Planing machine" means a machine for overhand 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 in charge 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 surrounding every wood-working machine shall be maintained in good and level condition, and shall not be allowed to become slippery, and as far as practicable 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 precaution to be observed to secure safe working of the machine.

6. Circular saws.-Every circular saw shall be fenced as follows :

(a)Behind and in direct line with the saw there shall be a riving knife, which shall have a smooth surface, shall be strong, rigid and easily adjustable, and shall also conform to the following conditions :(i)the edge of the knife nearer the saw shall form an arc of a circle having a radius not exceeding radius of the largest saw used on the bench,(ii)the knife shall be maintained as close as practicable to the saw, having regard to the nature of the work being done at the time, and at the level of the bench table the distance between the front edge of the knife and the teeth of the saw shall not exceed half an inch,(iii)for a 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 21 inches or over shall extend upwards from the bench table to a height of at least nine inches.(b)The top of the saw shall be covered by a strong and easily adjustable guard, with a flange at the side of the saw farthest from the fence. The guard shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.(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 plate shall not be more than six inches apart, and shall 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 l/10th inch, or if beaded be of a thicknessof at least l/20th inch.

7. Push Stick.-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 Saws.-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 front of the top pulley shall be covered with sheet or expanded metal or other suitable material,(c)all portions of the blade shall be enclosed or otherwise securely guarded except the portion of the blade between the bench table and the top guide.

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

(2)Every planing machine used for overhand planing shall be provided with a 'Bridge' guard capable of covering the full length and breadth of the cutting slot in the bench, and so constructed as to be easily adjusted both in a vertical and horizontal direction.(3)The feed roller of every planing machine used for thicknessing, except the combined machine for overhand planing and thicknessing shall be provided with an efficient guard.

10. Vertical spindle moulding machines.-(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 state,(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. Exemptions.-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 the Schedule.

IV

(Rubber Mills)

1. Installation of machines.-Mills for breaking down, cracking, granting, 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 of 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.

2. 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 the 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 apply the brakes, or reverse the rolls.(2)Safety-trip rods or tight wire cables on all rubber mills shall extend across the entire length of the face of the rolls and shall be located not more than sixty-nine inches above the floor of working level.(3)Safety-trip rods and right wire cables on all rubber mills shall be examined and tested daily in presence of the manager or other responsible person and if any defect is disclosed by such examination and test the mills shall not he used until such defect has been remedied.

54. Employment of young persons on dangerous machines.

- The following machines shall be deemed to be of such dangerous character that young persons shall not work at them unless the provisions of Section 23 (1) are complied with :Power presses other than hydraulic presses ;Melting machines used in the metal trades ;Guillotine machines;Circular saws ;Platen printing machines.

55. Exemption of certain hoists and lifts.

(1)A register shall be opened with the following columns to record particulars of examinations of hoists and lifts :(i)Date of examination.(ii)Number of hoists and lifts, if more than one.(iii)Details of tests made.(iv)Signature of examiner.(v)Designation and qualifications 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 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 10

Class or description of hoist or lift:	Requirements which shall not apply :
Hoists or lifts mainly used for raising materials for chargingblast furnaces of lime kilns	Sub-section (1) (b) in so far as it requires a gate at thebottom landing ; sub-section (1) (d); sub-section (1) (e).
Hoists not connected with mechanical power and which are notused for carrying persons	Sub-section (1) (b) in so far as it requires the hoistway orliftway enclosure to be so constructed as to prevent any personor thing from being trapped between any part of the hoist or liftand any fixed structure or moving part ; sub-section (1)(e).

55A.

(1)No lifting machine and no chain, rope or lifting tackle except a fibre rope or fibre rope sling, shall be taken into use in any factory for the first time in that factory unless it has been tested and all parts have been thoroughly examined by a competent person and a certificate of such a 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 inspection.(2)(a)Every jib-crane so constructed that the safe working load my be varied by the raising or lowering of the jib, shall have attached thereto either an automatic indicator or safe working loads or an automatic jib angle indicator and a table indicating the safe working loads at corresponding inclinations of the jib or corresponding radii of the load.(b)A table showing the safe working loads for every kind and size of chain, rope or lifting tackle in use, and in the case of a multiple sling, the safe working loads at different angles of the legs shall be posted in the store in which the chains, ropes or lifting tackles are, kept and in prominent positions on the premises, and no chain, rope or lifting tackle not shown in the table shall be used.The foregoing provisions of this paragraph shall not apply in respect of any

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 2.9 of the Act shall be-(i)Name of occupier of factory ;(ii)Address of the factory ;(iii)Distinguishing number of mark, if any, and description sufficient to identify the lifting machine, chain rope or the 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 certificate relating to any test and examination made under sub-rules (1) and (7) together with the name and address of the person who issues 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 under sub-rule (5) and by whom it was carried out;(viii)Particulars of any defects affecting the safe 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 track on which the carriage of a transporter or runway moves shall be of proper size and adequate strength and have an even running surface and every such rail or track shall be properly laid adequately supported and properly maintained.(5)All chains and lifting tackle, except a rope sling shall, unless they have been subjected to such other heat treatment as may be approved by the Chief Inspector of Factories, be effectively annealed under the supervision of a competent person at the following intervals :(i)all chains, slings, rings, hooks, 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 in general use once at least in every twelve months :Provided that chains and lifting tackle not in frequent use shall, subject to the Chief Inspector's approval, be annealed only when necessary. Particulars of such annealing shall be entered in a register prescribed under sub-rule (3).(6)Nothing in the foregoing sub-rule (5) shall apply to the following classes of chains and lifting tackles :(i)chains made of malleable cast iron;(ii)plate link chains ;(iii)chains, rings, hooks, shackles and swivels made of steel or of any non-ferrous metal;(iv)pitched chains, working on sprockets or 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)sockets, shackles secured to wire ropes by white- metal capping ;(viii)bordeaux connections.Such chains and lifting tackle 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).(7)All lifting machines, chains, ropes and lifting tackle, except a fibre rope or fibre rope 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 a certificate of such test and examination be obtained, and particulars entered in the register kept in accordance with sub-rule (3).(8)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.

56. Pressure vessels or plant.

(1)Interpretation.-In this rule-(a)"Design pressure" means the maximum pressure that a pressure vessel or plant is designed to withstand safely when operating normally ;(b)"maximum permissible working pressure" means the maximum pressure at which a pressure vessel or plant is permitted to be operated or used under this rule and is determined by the technical requirements of the process ;(c)"Plant" means system of piping that is connected to a pressure vessel and is used to contain a glass vapour or liquid under pressure greater than the atmospheric pressure and includes the pressure vessel ;(d)"Pressure vessel" means an unfired vessel that may be used for containing, storing, distributing ; transferring, distilling, processing or otherwise handling any gas vapour or liquid under pressure greater than the atmospheric pressure and includes any pipeline fitting or other equipment attached thereto or used in connection there with; and(e)"Competent person" means a person who is, in the opinion of the Chief Inspector, capable by virtue of his qualification, training and experience of conducting a thorough examination and pressure tests as required on a pressure vessel or plant, and of making a full report on its condition.(2)Exceptions.-Nothing in this rules shall apply to-(a)vessels made of ferrous materials having an internal operating pressure not exceeding Kilogram per square centimeter ;(b)steam boilers, steam and feed pipes and their fitting coming under the purview of Indian Boilers Act, 1923 ;(c)metal bottles or cylinders used for storage or transport of compressed gases or liquified or dissolved gases under pressure covered by the Gas Cylinder Rules, 1949 framed under the Indian Explosives Act. 1884;(d)vessels in which internal pressure is due solely to the static head of liquid ;(e)vessels with a nominal water capacity not exceeding 500 litres connected in a water pumping system containing air that is compressed to serve as a cushion ;(f)vessels for nuclear energy application ;(g)refrigeration plant having a capacity of 3 tons or less of refrigeration in 24 hours ; and(h)working cylinders of steam engines or prime movers, feed pumps and steam traps, turbine casting, compressor cylinders, steam separators or dryers, steam strainer, steam de-super heaters, oil separators, air receivers for fire sprinkler installation; air receivers of monotype machines ; provided the maximum working pressure of the air receiver does not exceed 1.33 Kilograms per square centimeter and the capacity 85 litres, air receivers of electrical circuit breakers ; air receivers of electrical relays ; air vessels on pumps, pipe coils, accessories of instruments and appliances such as cylinders and piston assemblies used for operating relays and interlocking type of guards, vessels with liquids subjected to static head only ; and hydraulically operating cylinders other than any cylinder communicating with an air loaded accumulator.(3)Design and construction.-Every pressure vessel or plant used in a factory-(a)shall be properly designed on sound engineering practice ;(b)shall be of good construction, sound materials, adequate strength and free from any patent defects ; and(c)shall be properly maintained in a safe condition :Provided that the pressure vessel or plant in respect of the design and construction of which there is an Indian standard or a standard of the country of manufacture of any other law or regulation in force, shall be designed and constructed in accordance with the said standard, law or regulation, as the case may, be, and a certificate thereof shall be obtained from the manufacturer or from the competent person which shall be kept and produced on demand by an Inspector.(4)Safety devices.-Every pressure vessel shall be fitted with-(a)a suitable safety valve or other effective pressure relieving device of adequate capacity to ensure that the maximum permissible working pressure of the pressure vessel shall not be exceeded. It shall be set to operate at a pressure no exceeding the maximum permissible working pressure and when more than one protective device is

provided, only one of the devices need be set to operate at the maximum permissible working pressure and the additional device shall be set to discharge at a pressure not more than 5 per cent in excess of the maximum permissible working pressure ;(b)a suitable pressure gauge with a dial range not less than 1.5 times the maximum permissible working pressure, easily visible and designed to show at all times the correct internal pressure and marked with a prominent red mark at the maximum permissible working pressure of the pressure vessel;(c)a suitable nipple and globe valve connected for the exclusive purpose of attaching a test pressure gauge for checking the accuracy of the pressure gauge referred to in clause, (b) of this sub-rule ;(d)a suitable stop valve or valves by which the pressure vessel may be isolated from other pressure vessels or plant or source of supply of pressure. Such a stop valve or valves shall be located as close to the pressure vessel as possible and shall be easily accessible ; and(e)a suitable drain cock or valve at the lowest part of the pressure vessel for the discharge of the liquid or other substances that may collect in the pressure vessel :Provided that it shall be sufficient for the purpose of this sub-rule if the safety valve or pressure relieving device, the pressure gauge and the stop valve are mounted on a pipeline immediately adjacent to the pressure vessel and where there is a range of two or more similar pressure vessels served by the same pressure lead only one set of such mountings need be fitted on the pressure lead immediately adjacent to the range of pressure vessel, provided they cannot be isolated.(5)Pressure reducing devices.-(a) Every pressure vessel which is designed for a working pressure less than the pressure at the source of supply, or less than the pressure which can be obtained in the pipe connecting the pressure vessel with any other other source of supply, shall be fitted with a suitable pressure reducing valve or other suitable automatic device to prevent the maximum permissible working pressure of the pressure vessel being exceeded.(b)To further protect the pressure vessel in the event of failure of the reducing valve or device at least one safety valve having a capacity sufficient to release all the stem vapour or gas without undue pressure rise as determined by the pressure at the source of supply and the size of the pipe connecting the reducing valve.(6)Pressure vessel or plant being taken into use.-(a) No new pressure vessel or plant shall be taken into use in a factory after coming into force of this rule unless it has been hydrostatically tested by a competent person at a pressure at least 1.3 times the design pressure and no pressure vessel or plant which has been previously used or has remained isolated or idle for a period exceeding 2 months or which has undergone alterations or repairs shall be taken into use in a factory unless it has been thoroughly examined by a competent person externally and internally, if practicable and has been hydrostatically tested by the competent person at a pressures which shall be 1.5 times the maximum permissible working pressure :Provided, however, that the pressure vessel or plant which is so designed and constructed that it cannot be safely filled with water or liquid or is used in service when even some traces of water cannot be tolerated, shall be pneumatically tested at a pressure not less than the design pressure or the maximum permissible working pressure as the case may be :Provided further that the pressure vessel or plant which is lined with glass shall be tested hydrostatically or pneumatically as required at a pressure not less than the design pressure or maximum permissible working pressure, as the case may be.Design pressure shall be not less than the maximum permissible working pressure and shall take into account the possible fluctuation of pressure during actual operation.(b)No pressure vessel or plant shall be used in a factory unless there has been obtained from the maker of the pressure vessel or plant or from the competent person a certificate specifying the design pressure or maximum permissible working pressure thereof and stating the nature of tests to which the pressure vessel or plant and its fittings (if any)

have been subjected, and every pressure vessel or plant so used on a factory shall be marked so as to enable it to be identified as to be the pressure vessel or plant to which the certificate relates and the certificate shall be kept available for perusal by the Inspector.(c)No pressure vessel or plant shall be permitted to be operated or used at a pressure higher than its design pressure or the minimum permissible working pressure as shown in the certificate.(7)In service test and examination.-(a) Every pressure vessel or plant in service shall be thoroughly examined by a competent person-(i)externally, once in every period of six months ;(ii)internally, once in every period of twelve months :Provided that if by reason of the construction of pressure vessel or plant a thorough internal examination is not possible this examination may be replaced by hydrostatic test which shall be carried out once in every period of two years :Provided further that for a pressure vessel or plant in continuous process which cannot be frequently opened, the period of internal examination may be extended to four years ; and(iii)hydrostatically tested once in every period of four years :Provided that in respect of a pressure vessel or plant with thin walls, such as sizing cylinder made of copper or any other non-ferrous metal, periodic hydrostatic test may be dispensed with subject to the condition that the requirements laid down in sub-rule (8) are fulfilled :Provided further that when it is impracticable to carry out thorough external examination of any pressure vessel or plant every six months as required in sub-clause, (i) of this clause, or if owing to its construction and use a pressure vessel or plant cannot be hydrostatically tested as required in sub-clauses (ii) and (iii) of this clause, a thorough external examination of the pressure vessel or plant shall be carried out at least once in every period of two years and at least once in every period of four years a thorough systematic non-destructive test like ultrasonic test for metal thickness or other defects of all parts the failure of which might lead to eventual rapture of the pressure vessel or pant shall be carried out.(b)The pressure for the hydrostatic test to be carried out for the purpose of this sub-rule shall be 1.25 times the design pressure or 1.5 times the maximum permissible working pressure, whichever is less.(8)This walled pressure vessel or plant.-(a) In respect of any pressure vessel or pant of thin walls such as sizing cylinder made of copper or any other non-ferrous metal, the maximum permissible working pressure shall be reduced at the rate of 5 per cent of the original maximum permissible working pressure for every year of its use after the first five years and no such cylinder shall be allowed to continue to be used for more than twenty years after its was first taken into use.(b)if any information as to the date of construction, thickness of walls or maximum permissible working pressure is not available, the age of such pressure vessel or plant shall be determined by the competent person in consultation with the Chief Inspector from the other particulars available with the manager.(c)Every new and second hand pressure vessel or plant of thin walls to which repairs liked to affect its strength or safety have carried out, shall be tested before use to at least 1.5 times its maximum permissible working pressure.(9)Report by competent person.-(a) If during any examination any doubt arises as to the ability of the pressure vessel or plant to work safely until the next prescribed examination the competent person shall enter in the prescribed register his observations, findings and conclusions with other relevant remarks with reasons and may authorise the pressure vessel or plant to be used and kept in operation subject to a lowering of maximum permissible working pressure or to more frequent or special examination or test, or subject to both of these conditions.(b)A report of every examination or test carried out shall be completed in Form 24 and shall be signed by the person making the examination or test and shall be kept available for perusal by the Inspector at all hours when the factory or any part thereof is working.(c)Where the report of any examination under this rule specified any conditions for securing the safe working of

any pressure vessel or plant the pressure vessel or plant shall not be used unless the specified condition is fulfilled.(id)The competent person making 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 pressure is reduced or the examination shows that the pressure vessel or plant or any part thereof cannot continue to be used with safety unless certain repairs are carried out or unless any other safety measure is taken.(10)Application of other laws.-(a) The requirements of this rule shall be in addition to and without any prejudice to and not in derogation of the requirements of any other law in force.(b)Certificates or reports of any examination or test of any pressure vessel or plant to which sub-rules (7) to (9) do not apply conducted or required to be conducted under any law in force and other relevant record relating to such pressure vessel or plant shall be properly maintained as required under the said law and shall be produced on demand by the Inspector.

57. 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 appliance exceeding the maximum limit in weight set out in the following Schedule :

Schedule 11

	Persons	Maximum weight of material, article, tool orappliance
(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 persons engaged.

58. Protection of eyes.

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

I

Dry grinding of metals or articles of metal applied by hand to a revolving wheel or disc driven by mechanical power. Turning (external or internal) of non-ferrous metals 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 screen would seriously interfere with the work, or turning by means of hand tools.Welding or cutting of metals by means of an electric, oxy-acetylene or similar process.The following processes when carried on by means of hand tools or other portable tools.Fettling of metal 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 ships plates. Breaking or dressing of stone, concrete or slag.

II

Welding or cutting of metals by means of an electrical oxy-acetylene of similar process.All processes in connection with glass melting furnaces.

59. Minimum dimensions of manholes.

- Every chamber, tank, vat, pipe, flue 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 case of a rectangular or oval shape, be not less than 16 inches long and 12 inches wide ;(b)in the case of a circular shape, be not less than 16 inches in diameter.

60. Exemptions.

- The requirements of sub-section (4) of Section 37 shall apply to the following processes carried on in any factory:(a)The operation of repairing a water-sealed gas-holder by the electric welding process subject to the following conditions :(i)the gas-holder shall contain only the following gases, separately or mixed at a pressure, greater than atmospheric pressure, namely, town gas, 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 acetylence or mixture of gases to which acetylene has been added intentionally;(ii)welding shall only be done by the electric welding process and shall be carried out by the experienced operatives under the constant supervision of a competent person .(b)The operations of cutting or welding steel or wrought 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 or mixed at a pressure greater than atmospheric pressure, namely, town gas, coke-oven gas, producer gas, blast furnace gas or gases 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 operations ;(iv)the site of 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 flame to the gas main or service, this shall be pierced or drilled and the escaping gas ignited.(c)The operation of repairing an oil tank, on 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 (closed test) and a certificate to this effect shall be obtained from a 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; and(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.

61. 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 of the foregoing-(a)Each room of factory building shall, in relation to its size and the number of persons employed in it, be provided with an adequate number of exits for use in case of fire though not necessarily confined to such use, so positioned that each person will have a 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 stair ways permanently constructed either inside or outside the building and which afforded 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 hand-rail which if the stairway has an open side shall be on that side, and if the stairway has two sides, such handrail 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 hoist-way or lift-way 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 hoist way or lift-way shall be enclosed only at the top by some materials easily broken by fire or be provided with a vent at the top.(c)No fire escape stair shall be constructed at an angle greater than 45° from the horizontal.(d)No part of a factory building shall be farther (along the line of travel) than 150 feet from any fire escape stair.(e)No stairway shall be less than 45 inches in width.

61A. 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 5 gallons capacity for every 1000 sq. ft. of floor area subjects 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 and, stone dust or other inert material:Provided that where that Chief Inspector is of the opinion that other adequate fire fighting apparatus be provided in the factory building or room, he may issue a certificate in writing (which he may at his discretion, revoke) specifying the extent to which the above requirements are related 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 in gallons per minute, as calculated formula A+B+C+D divided by 1000, is 100 gallons or more, power driven trailer pumps of adequate capacity to meet the requirement of water as calculated above shell be provided and maintained.In the above formula-A = the total area in sq. ft. of all floors including galleries in all buildings of the factory with the exception that in case of a tea estate factory leaf house,the ground floor area only need be taken into consideration for the purpose of calculation,B = the total area in sq. ft. of all floors and galleries including open spaces in which combustible materials are handled or stored,C = the total area in sq. ft. of all floors over 50 ft. above ground level, andD = the total area in sq. ft. of all floors of all buildings other than those of fire resisting construction :Provided that in areas where the fire risk involved does not require use of water such areas under B, C or D may, for the purpose of calculation, be halved :Provided also that where the factory is situated at not more than 2 miles from an established city or town fire service, the pumping capacity based on the amount of water arrived at by the formula above may be reduced by 25 per cent but no account shall be taken of this reduction in calculating water supply required under the sub-rule (7).(3)Each trailer pump shall be provided with equipment as per Schedule A. Such equipment shall conform to Indian Standard Specifications wherever they exist.(4)Trailer pumps shall be housed in a separate shed/sheds which shall be sited close to a principal source of water supply in the vicinity of the main risk of the factory.(5)In factories where the area is such as cannot be reached by man-hauling of trailer pumps 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 per cent of this water supply or one lakh gallons whichever is less shall be in the form of static tanks of adequate capacities (not less than 10,000 gallons each) distributed round the factory with due regard to potential fire risks in the factory, Where piped supply is provided, the size of the main shall not be less than 6 inches diameter and it shall be capable of supplying minimum of 100 gallons per minute at a pressure of not less than 10 lbs. per square inch.(7)(a)In factories having more than 1,000 sq. ft. 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 5,000 sq. ft. of area spaced at not more than 100 ft. 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 liquids 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, carbondioxide, chlorobrome methane or other equivalent type.(c)In factories where fires may occur due to electrical equipment, the extinguisher to be provided at the scale laid in clause (a) shall consist of carbon tetrachloride or equivalent types.(d)In factories where fires may occur due to magnesium, aluminum or zinc dust or shavings of other ignitable metals, the use of liquids, carbondioxide 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 fighting 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 discretion, 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 Specification ;(ii)be kept charged ready for use, properly mounted in a position approved by the Inspector and accompanied by the maker's printed instructions for its use ; and(iii)be examined, tested or discharged periodically in accordance with the maker's recommendation.(b)The manager of every factory shall keep and maintain sufficient number of spare 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 upkeep of all fire fighting equipments.

Schedule 14

A Equipment for Trailer pumps(A)For light trailer pump (120-150 g. p.m.) 30 ft. length of armoured suction hose, with wrenches :

1	Metal suction strainer.
1	Basket strainer.
1	Two-way suction collecting-head.
1	Suction adapter.
10	Seventy-five ft. length of unlined 2-½ inch delivery hosecomplete with quick-release couplings.
1	Dividing Breeching piece.
2	Branch pipes with □inch nozzels.
1	Diffuser Nozzel.
1	Standpipe with blank cap.
1	Hydrant-key.
4	Collapsible canvas buckets.
1	Fire hook (preventer) with cutting edge.
1	C. T. C. Extinguisher 1 /4 gallon capacity;
1	One hundred ft. length of 1 inch manila rope.
1	Thirty ft, 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 Gloves.

(B)For large trailer pump (350-500 g. p. m.) 30 ft. length of armoured suction hose, with wrenches :

1 Metal strainer.

1 Basket strainer.

1 Three-way suction collecting-head.

1 Suction adapter.

14 Seventy-five ft. lengths of unlined canvas 2-½ inch deliveryhoses complete with quick -release couplings.

1 Dividing breaching piece.

1 Collecting breaching-piece.

4 Breach pipes with one inch, two ¾ inch, and one diffusernozzle.

1 Standpipes with blank caps.

2 Hydrant keys.

6 Collapsible canvas buckets.

1 Ceiling hook(prevented) with cutting edge.

1 C.T.C. extinguisher ¼ gallon capacity.

1 Thirty ft. extension ladder (where necessary).

1 Pair Rubber Gloves.

1 Heavy axe.

1 Spade.

1 Pick axe.

1 One Hundred ft. length of 2 inch manila rope.

1 Crowbar.

1 Saw.

2 Hurricane lamps.

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.

62. Washing facilities.

(1)This rule shall come into force, in respect of any class or description of factories, on such dates as the State Government, may, by notification in the official Gazette, appoint in this behalf.(2)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.(3)Without prejudice to the generality of the foregoing provisions the washings 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 ; or(f)wash-basins or bathing places with standing water in clean vessels :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.(4)(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 be so laid or finished as to provide a smooth, impervious surface and shall be adequately drained.(5)For persons whose work involve contact with any injurious or noxious 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 :

Number of workers	Number of taps
Up to 20	1
21 to 35	2
36 to 50	3
51 to 150	4
151 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.

(6)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 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.(7)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.

62A.

All classes of factories mentioned in the Schedule annexed hereto shall provide facilities for keeping clothing not worn during working hours and for the drying of wet clothing. Such facilities shall

include the provision of arrangement approved by the Chief Inspector of Factories.

Schedule 15

Engineering Workshop.Iron and Steel Works.Oil Mills.Chemical Works.Automobile Workshop.Dyeing Works.Any other factory where all or some of the workers are provided with special type of clothing during working hours.

63. First-aid appliance.

- The first-aid boxes or cupboards shall be distinctively marked with a red cross on a white background and shall contain the following equipments :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 cupboard shall contain the following equipments :(i)6 small sterilized dressings.(ii)3 medium size sterilized dressings.(iii)3 large size sterilized dressings.(iv)3 large size sterilized bum dressings.(v)1 (1 oz) bottle containing a two per cent alcoholic solution of iodine.(vi)1 (1 oz) bottle containing sal-volatile having the dose and mode of administration indicated on the label.(vii)A snake-bite lancet. -(viii)1 (1 oz) bottle of potassium permanganate crystals.(ix)1 pair of scissors.(x)1 copy of the first-aid leaflet issued by the Chief Advisor Factories, Government of India.(xi)Fifty tablets (of 5 grains each) of Asprin.(xii)One oz. of ointment of bums.(xiii)One bottle (of 1 oz.) of a suitable surgical antiseptic solution.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 equipments :(i)12 small size sterilized dressings.(ii)6 medium size sterilized dressings.(iii)6 large size sterilized dressings.(iv)6 large size sterilised bum dressings.(v)6 (½ oz.) packets sterilized cotton wool.(vi)1 (2 oz.) bottle containing a two per cent, alcoholic solution of iodine.(vii)1 (2 oz.) bottle containing sal-volatile having the does and mode of administration indicated on the label.(viii)1 roll of adhesive plaster.(ix)A snake-bite lancet.(x)1 (I oz.) bottle of potassium permanganate crystals.(xi)1 pair scissors.(xii)One copy of first aid leaflet issued by the Chief Advisor, Factories, Government of India.(xiii)One hundred tablets (of 5 grains each) of Aspirin.(xiv)Two oz. of ointment of burns.(xv)One bottle (of 2 oz) of a suitable surgical antiseptic solution.C. For factories employing more than 50 persons-Each first- aid box or cupboard shall contain the following equipments :(i)24 small size sterilized dressings.(ii)12 medium size sterilized dressings.(iii)12 large size sterilized dressings.(iv)12 large size sterilized burn dressings.(v)12 (½ oz) packets sterilized cotton wool.(vi)1 snake-bite lancet.(vii)1 pair of scissors.(viii)2 (1 oz.) bottles of potassium permanganate crystals.(ix)1 (4 oz.)bottle containing a two per cent alcoholic solution of iodine.(x)1 (4 oz.) bottle of sal-volatile having the dose and mode of administration indicated on the label.(xi)One copy of the first-aid leaflet issued by the Chief Advisor of Factories, Government of India.(xii)12 roller bandages 4 inches wide.(xiii)12 roller bandages 2 inches wide.(xiv)2 rolls of adhesive plaster.(xv)6 triangular bandages.(xvi)2 packets of safety pins.(xvii)A supply of suitable splints.(xviii)1 tourniquet.(xix)Two hundred tablets (of 5 grains each) of Aspirin.(xx)Four oz of ointment of bums.(xxi)Two bottles (of 2 oz.) of a suitable surgical antiseptic solution :Provided that items (xii) to (xviii) inclusive need not be included in the standard first-aid box or cupboard (a) where there is a properly equipped ambulance room, or (b) if at least one box containing such items and placed and maintained in accordance with the requirements of Section 45 is separately provided.D. In lieu of the dressings required under

items (i) and (ii), there may be substituted adhesive wound dressings approved by the Chief Inspector of Factories.

64. Ambulance room.

(1)This rule shall come into force, in respect of any class or description of factories, on such dates as the State Government may, by notification in the official Gazette, appoint in this behalf.(2)The ambulance room or dispensary shall be in charge of a qualified medical practitioner assisted by at least one qualified nurse and such subordinate staff as the Chief Inspector may direct.(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 250 sq. ft. and smooth, hard and impervious walls and floor and shall be adequately ventilate and lighted by both natural and artificial means. An adequate supply of wholesome drinking water shall be laid on and the room shall contain at least-(i)A glazed sink with hot and cold water always available ;(ii)A table with a smooth top at least 6x3 feets 6 inches.(iii)Means for sterilizing instruments ;(iv)A couch ;(v)Two stretchers;(vi)Two buckets or containers with close fitting lid.(vii)Two rubber hot water bags ;(viii)A kettle and spirit stove or other suitable means of boiling water ;(ix)Twelve plain wooden splints 30x4x¼ inches ;(x)Twelve """ 14x3x¼ inches ;(xi)Six 10x2x½ inches ;(xii)Six woollen blankets ;(xiii)One pair artery forceps ;(xiv)One bottle of brandy ;(xv)Two medium size sponges ;(xvi)Six hand towels ;(xvii)Four "Kidney" trays ;(xviii)Four cakes carbolic soap ;(xix)Two glass tumblers and two wine glasses ;(xx)Two clinical thermometers ;(xxi)One graduated measuring glass with teaspoon ;(xxii)One eye bath ;(xxiii)One bottle (2 lbs.) carbolic lotion 1 in 20 ;(xxiv)Three chairs;(xxv)One screen;(xxvi)One electric hand torch ;(xxvii)Four first-aid boxes or cupboards stocked to the standards prescribed under item C of Rule 63.(xxviii)An adequate supply of anti-tetanus serum.(4)The occupier of every factory to which these rules apply shall, for the purpose of removing serious cases of accident or sickness, provide in the premises and maintain in good condition a suitable conveyance unless he has made arrangements for obtaining such a conveyance from a hospital.(5)A record of all cases of accident and sickness treated at the room shall be kept and produced to the Inspector of Certifying Surgeon when required.

65. Canteens.

(1)Rules 65 to 70 shall come into force in respect of any class or description of factories on such dates as the State Government may, by notification in the official Gazette, appoint in this behalf.(2)The occupier of every factory notified by the State Government, and wherein more than two hundred and fifty workers are ordinarily employed shall provide in or near the factory an adequate canteen according to the standards prescribed in these rules.(3)The manager of a factory shall submit for the approval of the Chief Inspector plans and site plan in duplicate, of the building to be constructed or adopted for use as a canteen.(4)The canteen building shall be situated not less than fifty feet from any latrine, urinal, boiler house, coal stacks, ash dumps and any other sources 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 sub-rule.(5)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.(6)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 the Chief Inspector.(7)The doors and windows of a canteen building shall be of fly-proof construction and shall allow adequate ventilation.(8)The canteen shall be sufficiently lighted at all times when any persons have access to it.(9)(a)In every canteen-(i)all inside walls of rooms and all ceilings and passages and stair cases 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, colour-washed or painted, as the case may be ;(ii)all wood work shall be varnished or painted once in three years dating from the period when last 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 the 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. 7)(10)The precincts of the canteen shall be maintained in a clean and sanitary condition. Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance. Suitable arrangements shall be made for the collection and disposal of garbage.

66. 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 State 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 dinner 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 separated and screened to secures privacy.(4)Sufficient tables, chairs or benches shall be available for the number of diners to be accommodated as prescribed in sub-rule (1).

67. 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 and maintained.(2)The furniture, utensils and other equipment shall be maintained in a clean and hygienic condition. A sendee counter, if provided, shall have a top of smooth and impervious material. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment.

68. Prices to be charged.

(1)Food, drink and other items 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 food-stuff, beverages and any other items served in the canteen shall be conspicuously displayed in the canteen.

69. 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 of Factories.(2)The accounts pertaining to the canteen shall be audited, once in every twelve months by registered accountants and auditors. The Balance sheet prepared by the said auditors shall be submitted to the Canteen Managing Committee not later than two months after 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.

70. Managing Committee.

(1)The Manager shall appoint a Canteen Managing Committee which shall be consulted from time time as to-(a)the quality and quantity of food-stuffs to be served in the canteen ;(b)the arrangement of the menus ;(c)the times, 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 one for every 1,000 workers employed in the factory ; Provided that in no case shall there 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 election, no account being taken of a bye-election.

71. Shelters, rest-rooms and lunch-rooms.

(1)This rule shall come into force, in respect of any class or description of the factories, on such dates as the State Government may, by notification in the official 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 water proof. 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 room 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 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 it is to keep the rooms, building and precincts thereof in a clean and tidy condition.

72. Creches.

(1)This rule shall come into force, in respect of any class or description of factories, on such dates as the State Government may, by notification in the official Gazette, appoint in this behalf.(2)The creche shall be conveniently accessible to the mother 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 finished 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 roofs 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 older children.(7)A suitable fenced and shady open air play-ground shall be provided for the older 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 provision of such a play-ground.

73. Wash room.

(1)There shall be in for 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 room to a height of 5 feet shall be so laid or finished 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 any one time together with a supply of water provided, if practicable, through taps from a source 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 which it is in the creche.(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 Heath Authority, by the Chief Inspector of Factories.

74. 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 each child shall be allowed in the course of her daily work three hours' intervals of atleast 2. minutes each time to feed the child. For children above two years of age there shall be provided in addition an adequate supply of wholesome refreshment.

75. Clothes for creche staff.

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

75A.

1. Short title and commencement.-(1) These rules may be called the Welfare Officers (Recruitment and Conditions of Service) Rules, 1950.

(2)They shall come into force on such date as the State Government may, by notification in the official Gazette, appoint in this behalf.

2. Definitions.-In these rules, unless the context otherwise requires-

(a)"Act" means the Factories Act, 1948 (LXII of 1948).(b)The expressions "factory" and "occupier" have the meanings respectively assigned to them in the Act.

3. Number of Welfare Officers.-There shall be one Welfare Officer for factories employing between 500 to 2,000 workers per day. Where, the number of workers exceed 2,000 there shall be an Additional Welfare Officer for every additional two thousand workers or fraction thereof over 500. Where there are more than one Welfare Officers appointed, one of them shall be called the Chief Welfare Officer and the other Assistant Welfare Officers.

4. Qualifications.-A person shall not be eligible for appointment as Welfare Officer, unless he-

(a)possesses a degree of a University, recognised by the State Government in this behalf;(b)has obtained a Degree or Diploma in Social Science from any institution recognised by the State Government in this behalf;(c)had adequate knowledge of Assamese and Hindi and of the language spoken by the majority of the workers in the factory to which he is to be attached :Provided that in the case of person who is acting a Welfare Officer at the commencement of these rules the State Government may, subject to such conditions as it may specify, relax all or any of the aforesaid qualifications :Provided further that while preference shall be given to those having a Diploma, the

State Government may grant exemption in suitable cases until such time as better facilities in the matter of training in Social Science are made available throughout the country.

5. [Recruitment of Welfare Officers.-(1) The post of a Welfare Officer shall be advertised in at least two newspapers having a wide circulation in the State, one of which shall be an English newspaper.

(2)The selection shall be made from among the candidates applying for the post by a committee appointed by the occupier of the factory.(3)The appointment when made shall be notified by the occupier to the State Government or such authority as the State Government may specify for the purpose, giving full details of the qualifications, etc. of the officer appointed and the conditions of the service.

6. Conditions of service of Welfare Officers.-(a) A Welfare Officer shall be given appropriate status corresponding to the status of the other executive heads of the factory and he shall be started on a suitable scale of pay given to the other executive heads of the Factory as per respective Services Rules/Regulations of the employer/occupier.

(b)The conditions of service of a Welfare Officer shall be the same as of other members of the staff of corresponding status in the factory :Provided that, in the case of discharge or dismissal, the Welfare Officer shall have the right to appeal to the State Government whose decision thereon shall be final and binding upon the occupier/employer :Provided further that before disposal of such an appeal the State Government may give a hearing to the occupier/employer concerned.

7. Duties of Welfare Officers.-The duties of a Welfare Officer shall be-

(a)to establish contacts and hold consultations with a view to maintaining harmonious relations between the factory management and workers;(b)to bring to the notice of the factory management the grievances of the workers, individual as well as collective, with a view of securing their expeditious redress and to act as a liaison officer between the management and labour;(c)to study and understand the point of view of labour in order to help the factory management to shape and formulate labour policies and to interpret these policies to the workers in a language they can understand;(d)to watch industrial relations with a view to using has influence in the event of a dispute between the factory management and workers and to help to bring about a settlement by persuasive effort;(e)to advise on fulfilment by the management and the concerned departments of the factory of obligation, statutory or otherwise, concerning regulation of working hours, maternity benefit, medical care, compensation for injuries and sickness and other welfare and social benefit measures;(f)to advise and assist the management in the fulfilment of its obligations, statutory or otherwise, concerning prevention of personal injuries and maintaining a safe work environment, in such factories where a Safely Officer is not required to be appointed under the enabling provisions under Section 40-B ;(g)to promote relations between the concerned departments of the factory and

workers which will bring about productive efficiency as well as amelioration in the working conditions and to help workers to adjust and adapt themselves to their working environments ;(h)to encourage the formation of Works and Joint Production Committees, Co-operative Societies and Welfare Committees, and to supervise their work;(i)to encourage provisions of amenities such as canteens, shelters for rest, creches, adequate latrine facilities, drinking water, sickness and benevolent scheme, payments, pension and superannuation funds, gratuity payments, granting of loans and legal advice to workers ;(j)to help the factory management in regulating the grant of leave with wages and explain to the workers the provisions relating to leave with wages and other leave privileges and to guide the workers in the matter of submission of application for grant of leave for regulating authorised absence;(k)to advise on provision of welfare facilities, such as housing facilities, foodstuffs, social and recreational facilities, sanitation, advice on individual, personal problems and education of children ;(l)to advise the factory management on question relating to training of new starters, apprentices, workers on transfer and promotion, instructors and supervisors, supervision and control of notice board and information bulletins to further education of workers and to encourage their attendance at technical institutes ; and(m)to suggest measures which will serve to raise the standard of living of workers in general, and promote their well-being.]

7A. [Welfare Officers not to deal with disciplinary cases or appear on behalf of the management against workers.-No Welfare Officer shall deal with any disciplinary case against workers or appear before a conciliation officer in a Court or Tribunal on behalf of the factory management against a worker or workers.] [Inserted by Notification No. GLR 159/88/25, dated 10.4.1991.]

8. Power of exemption.-The State Government may, by notification in the official Gazette, exempt any factory or class or description of factories from the operation of any of the provisions of these rules subject to compliance with such alternative arrangements as may be approved.

Chapter IV
Working Hours of Adults

76. Compensatory holidays.

(1)Except in the case of worker engaged in any work which for technical reasons must be carried on continuously throughout 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 holidays shall be made not less than three days in advance of the date of that holiday.(3)Any

compensatory holiday or holidays which a worker is entitled shall be given to him before he is discharged or dismisses and shall not be reckoned as part of any period of notice required to be given before discharge of dismissal.(4)(a)The Manager shall maintain a Register in Form No. 9 :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 return made by the Manager, gives in respect of any or all of the workers in the factory the particulars required for the enforcement of Section 53, he may, by order in writing, direct that such muster-roll or register or return shall, to the corresponding extent, be maintained in place of and be treated as the register or return required under this rule for that factory.(b)The register maintained under clause, (a) shall be preserved for a period of three years after the last entry in it and shall be produced before the Inspector on demand.

77. Muster-roll for exempted workers.

(1)The Manager of every factory in which workers are exempted under Section 64 or 65 from the provisions of Section 51 of 54 shall keep a muster-roll in Form No. 10 showing the normal piece-work rate of pay, or the rate of per hour, of all exempted employees. In this muster-roll shall be correctly entered the overtime hours of work and payments therefor of all exempted workers. The muster-roll in Form No. 10 shall always be available for inspection and it shall be presumed for a minimum period of three years after the date of last entry in it.(2)Overtime slips.-The exact period or periods of overtime worked by each worker shall be correctly entered in overtime slips in duplicate, a copy of which duly signed by the Manager or by a person duly authorised by him shall be given to the worker concerned immediately after completion of the overtime work.

77A.

The cash equivalent of the advantage accruing through the concessional sale to a worker of food-grains and other articles shall be computed at the end of every wage period fixed under the provisions of the Payment of Wages Act. 1936.

77B.

For the purpose of computing cash equivalent of the advantage accruing through the concessional sales to a worker of food-grains and other articles, the difference between the value of foodgrains and other articles at the average rate in the nearest market prevailing during the wage period in which overtime was worked and value of foodgrains and other articles supplied at concessional rates shall be calculated and allowed for the number of overtime hours worked.This rule shall not apply to any Federal Railway Factory whose alternative method of computation has been approved by the State Government.

78. Notice of periods of work for adults and children.

- The notice of periods of work for adults and children workers shall be in Form No. 11.

79. Register of adult workers.

- The register of adult workers shall be in Form No. 12, provided in a factory exempted from Section 61 in Rule 83, the register may be maintained in Form No. 13.When the register is maintained in Form No. 13, correct entries of actual starting and stopping times of each worker of each work period shall be made in it at the time when the worker enters the factory to commence work and leaves the factory after completion of his work period, in the "In" and "Out" columns, respectively. The register shall be written in ink either in English or in the State language and it shall be preserved for a minimum period of three years.

80. Persons defined to hold positions of supervision or management.

- The following persons shall be deemed to hold position 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 management.

Schedule 16

List of persons to hold position of or management in factories :

1. Managers.

2. Assistant Managers.

3. Engineers.

4. Foremen.

5. Weaving Masters and Spinning Masters in Textile Mills.

6. Head Electricians.

7. Supervisors and Instructors.

81. Persons defined to hold confidential position.

- 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.

82. List to be maintained of persons holding confidential position or position of supervision or management.

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

83. Exemption of certain adult male workers.

- Adult male workers engaged in factories specified in column 4 of the said Schedule shall be exempted from the provisions of the sections specified in column 5 subject to the conditions, if any, specified in column 6 of the said Schedule.

Schedule 17

Serial. No.	Section of the Act empowering grant of exemption	Class of factories	Nature of work exempted	Extent of exemption	Conditions
1	2	3	4	5	6
1	64 (2)(a) and 64(3)	All factories	Urgent repairs	Secs. 51, 52, 53, 54, 55, 56 and 61	(i) Total hours of work done by anyworker including the hours of normal work, if any, shall notexceed 15 on any one day, 39 during any three consecutive days or66 during each period of seven consecutive days commencing fromhis first employment on such repairs.(ii) No worker shall be employedfor more than 14 consecutive days without a rest period of 24consecutive hours, and as the work permits a rest period of onehour shall be permitted to each worker during his daily workinghours.(iii) Within 24 hours of the

				commencement of the work, anotice shall be sent to the Inspector describing the nature ofthe urgent repairs, stating the names of the persons employed,the exact time of commencement of work and the period probablyrequired for its completion. A copy of the above notice shall bedisplayed in accordance with Section 108 (2) of the Act beforethe workers are engaged on urgent repairs.
2	64 (2)(b) and 64 (3)	All factories	Secs 51, 54 55, 56 and 61	(i) These exemptions shall apply incase of the limited number of maintenance staff approved inwriting by the Chief inspector of Factories. The occupier ormanager of the factories before; availing of these exemptionsshall apply to the Chief Inspector for necessary approval ofstaff.(ii) No worker shall be employedfor more than 10 hours in any one day, and spread over hoursshall be limited to 12 in any day.(iii) Total number of hours of overtime work done by anyworker shall not exceed 50 in any one quarter.

			preparatory to thecommencement of regular work in the factory.		
3	64 (2)(c) and 64(3)	All factories	Work performed by drivers on lighting, ventilating andhumidifying apparatus, work performed by live pumpmen, work ofloading, unloading or transporting raw materials in factorieswhere such work is intermittent and mainly outside the factorypremises	Secs. 51, 54, 58, 61	(i) The exemption shall apply to alimited number of adult male workers to be approved by the ChiefInspector of Factories. A list of such workers shall be submittedto the Chief Inspector of Factories for approval prior to theexemptions being availed.(ii) No worker shall be employedfor more than 10 hours in any one day.(iii) Total number of hours ofovertime work done by any worker shall not exceed 50 in any onequarter.(iv) Spread over hours shall not exceed 12.
4	64(2)(d) and 64(3)	Oil tank installations	Work in connection with pumping operation	Secs. 51, 52, 54, 55, 56 and 61	(i) The worker shall ordinarily beemployed on daily eight hours shifts.(ii) No such worker shall be employed for more than 14consecutive days without a rest period of 24 consecutive hours.
		Oil Refineries	All continuous process work in refining crude petroleum	Do	(iii) No worker shall be employed for more than 10 hours inany one day except to enable a shift worker to work a part or thewhole of a subsequent shift in the absence of a worker who

			hasfailed to report for duty in time for a part of the whole shift,in which case the daily maximum hours of work shall be limited to16.
Iron and Steel factory	All work on steel furnace	Do	(iv) Total number of hours of over time work done by anyworker shall not exceed 50 in any one quarter.
Calcining work	Continuous process of Calcination of Coke	Do.	(v) The system of shift used in thefactory shall have the approval of the Chief Inspector.(vi) Spread over hours shall not exceed 12 except to enable ashift worker to work a part or the whole of a. subsequent shiftin the absence of a worker who has failed to report for duty inntime or for the whole shift.
Hydroelectric Public supply factory	Operation and maintenance of prime movers and auxiliaries,transformers and switches	Sections 51, 52, 54, and 61	(i) No worker shall be employed for more than 14 consecutivedays without a rest period of 24 consecutive hours.
Public Electric Supply companies generatingelectricity with thermal power	Workers attending to boilers, turbine, engine, generators,motors, switch boards, pumps, batteries and auxiliaries.	Do.	(ii) No worker shall be employedfor more than 10 hours in any one day except to facilitate achange of shift.(iii) Total overtime hours of work shall not exceed 50 in anyquarter.
Electrical Transforming Factories	Operation and maintenance of transforming plant, switches andsynchronous condensers	Do.	Do.

Water works and water pumping station	The work of attending to boilers, prime movers, pumps andauxiliaries.	Do.	Do.
Distilleries	Attendance of boilers, Prime movers and pumps, extraication ofsugar from various bases, fermentation of sugar juice and washdistillation processes.	Do.	Do.
Chemical factories.	Work on sulphur burners, chambers, concentrators and pumps,roasting furnace, manufacture of hydrochloric acid, nitric acid,sulphuric acid, sulphates, sulphides, nitrates, chlorides,superphosphates work on steam service.	Do.	(i) No worker shall be employed formore than 14 consecutive days without a rest period of 24consecutive hours.(ii) No worker shall be employedfor more than 10 hours in any one day except enable a shiftworker to a part of the whole of a subsequent shift in theabsence of worker who has failed to report for duty in time orfor the whole shift.(iii) Total overtime hours of work shall not exceed 50 in anyquarter.
Vegetable oil Hydrogeneration factories	Work of refining, bleaching, filtering, generation ofhydrogen. Hydrogeneration and deodorising processes, compressingof oxygen,charging of cylinders, work on power equipment.	Do.	(i) No worker shall be employed;for more than 14 consecutive days without a rest period of 24consecutive hours.(ii) No worker shall be employedfor more than 10 hours in any one day except to enable a shiftworker to work a part or the whole of subsequent shift in

				theabsence of a worker who has failed to report for duty in time orfor the whole shift.(iii) Total overtime hours of work shall not exceed 50 in anyone quarter.
	Ice factories	Work of engine and compressor drivers, assistants and oilers,work on ice making machinery.	Do.	Do.
	Glass factories	Work in attending to furnace. All process work from mixing ofbatch to removal of manufactured glass ware from the lears.	Sections 52 and 55. Section 52	No worker shall be employed for more than 14 consecutive dayswithout a rest period of 24 consecutive hours.
	Paper factories	All work on paper making machinery and on the generation andsupply of power connected therewith.	Sections 54 and 55	No worker shall be employed for more the 10 hours in any oneday, and for more than 14 consecutive days without a rest periodof 24 consecutive hours.
	Paper factories	Work on choppers, digesters, kneaders, strainers and washers,beaters, paper making machines, pumping plant, reelers, cuttersand power plant.	Sections 52, 54 and 55	Do.
	Plywood factories	The continuous process work of cutting, gumming, pressing anddrying of plywood.	Section 55	If the process is carried on throughout the day.
64(2)(c) and 64(3)	Mustard Oil Mills	The work of ghannymen only	Section 55	
64 (2)(g) and 64(3)	Tea factories	The work of rolling, fermenting, firing,	Sections 52, 54 and	No worker shall be employed for more than

		sorting, cleaning andpacking in the tea manufacturing process.	61	14 consecutive dayswithout a rest period of 24 consecutive hours.
64 (2)(g) and 64(3)	Rice Mills paraboiling process	The work of paraboiling only	Do.	
	Flour Mills	All work	Sections 52 and 55	
64(2)(i) and 64(3)	Printing Presses	Work of printing newspapers in case it is held up due to breakdown of machinery.	Sections 51, 54 and 56	No worker shall be employed for more than 10 hours on any dayand the total number of hours of overtime work done by any workershall not exceed 50 in any quarter.

Explanations.-(1) For the purposes of this Rule (Rule. 83) "urgent repair" shall mean-(a)repairs to any part of the machinery, plant or structure of a factory which are of such a nature that delay in their execution would involve danger to human life or safety or the stoppage of the manufacturing process ;(b)breakdown repairs to the prime movers, transmission or other essential plant of other factories, collieries, railways, dock-yards, harbours, tramways, motor transport, gas, electric generation and transmission, pumping or other similar essential or public utility services carried out in general engineering works and foundries, and which are necessary to enable such concerns to maintain their main manufacturing processes, production or services during normal working hours ;(c)repairs to deep-sea ships and repairs to commercial air-craft done in a factory which are essential to enable such ships or air-craft to leave port at proper time or continue their normal operations in a sea-worthy or air-worthy condition, as the case may be, and break down repairs to Inland Water Transport Vessels which are essential to enable such vessels to continue their normal operations ;(d)repairs in connection with a change of motive power, e. g., from steam to electricity or vice-versa, which such work cannot possibly be done without stoppage of the normal manufacturing process ;Periodical cleaning is not included in the terms "examining" or "repairing".(2)"Maintenance" for the purpose of this rule means the normal upkeep of power plant, transmission machinery, electric motors and their switchgears and cables.Note.-In all the factories where exemption from Section 52, is availed of, compensatory holiday must be given in accordance with Section 53 of the Act and where exemptions from Sections 51 and 54 are availed of overtime wages must be paid in accordance with Section 59 of the Act.

Chapter VII
Employment Of Young Persons

84. Notice of periods of work for children.

- The notice of periods of work for child workers shall be in Form No. 11.

85. Register of child workers.

(1)The register of child workers shall be in Form No. 14.(2)The occupier of the factory shall pay fees at the rate of Rs. 20 for granting certificate of fitness by certifying surgeon in respect of each young person to be employed in the factory.(3)For granting renewal of each certificate of fitness by certifying surgeon the occupier of the factory shall pay fees at the rate of Rs. 18.(4)For granting duplicate certificate of fitness in the event of loss of original certificate of fitness, the occupier of the factory shall pay fees at the rate of Rs. 10.(5)The fees shall be paid into the local treasury under the Head of Account "0230-LABOUR AND EMPLOYMENT"-Fees under the Factories Act. 1948.

Chapter VIII
Leave With Wages

85A.

The cash equivalent of the advantage accruing through the concessional sale of foodgrains and other articles payable to workers proceeding on leave shall be the difference between the value at the average rates in the nearest market prevailing during the month immediately preceding his leave and the value at the concessional rates allowed of the foodgrains and other articles he is entitled to.For the purpose of the cash equivalent monthly average market rates of foodgrains and other articles shall be completed at the end of every month.

86. Leave with Wages Register.

(1)The manager shall keep a register in Form No. 15 hereinafter called the Leave with Wages Register :Provided, that if the Chief Inspector is of the opinion that any muster roll or register maintained as part of the routine of the factory or return made by the manager, gives in respect of any or all of the workers in the factory, the particulars required for enforcement of Chapter VIII of the Act, he may, by order in writing, direct that such muster roll or register or return shall, to the corresponding extent, be maintained in place of and be treated as the register or return required under this rule in respect of that 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.

87. 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. 16 (hereinafter called the Leave Book) not later than the 31st January of that 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 "Leave with Wages Register" (Form No. 15) 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 the payment of 25 paise and shall complete it from his record.

88. Medical Certificate.

- If any worker is absent from work due to his illness and he wants to avail himself of the leave with wages due to him to cover the whole or part of the period of his illness under the provisions of clause. (7) of Section 79 of Chapter VIII as revised by the Factories (Amendment) Act. 1954, he shall, if required by the manager, produce a medical certificate signed by a registered medical practitioner or by a registered or recognised Vaid or 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, during the period for which the leave is to be availed of.

89. 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 numbers of unemployed and the reason for their unemployment. Entries to this effect shall be made in the Leave with Wages Register and the Leave Book in respect of each worker concerned.

90. Notice by worker.

- Before or at the end of every calendar year, a worker, who may be required to avail of leave in accordance with sub-section (8) of Section 79 of the Factories Act, 1948, may give notice to the manager of his intention not avail himself of the leave with wages falling due in the following calendar year. The manager shall make an entry to that effect in the Leave with Wages Register and in the Leave Book of worker concerned.

91. Notice of leave with wages.

(1)As far as circumstances permit, members of the same family comprising husband, wife and children shall be allowed leave on the same date.(2)A worker may exchange the period of his leave with another worker, subject to the approval of the manager.

92. 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 leave with wages not availed of shall be paid to his nominee within one week of the intimation of the death of

the worker. For this purpose each workers shall submit a nomination in Form No. 31 duly signed by himself and attested by two witnesses. The nomination shall remain in force until it is cancelled or revised by another nomination.

93. Register to be maintained in case of exemption under Section 84.

(1)Where an exemption is granted under Section 84, the manager shall maintain a register showing the position of each worker a 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 State Government at the time of granting exemption under Section 84 without its previous sanction.

Chapter IX
Special Provisions

94. Dangerous operations.

(1)The following operations when carried on in any factory are declared to be dangerous operations under Section 87 :

1. Manufacture of aerated water and process identical thereto.

2. Electrolytic plating or oxidation of metal articles by use of an electrolyte containing chromic acid or 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 of lead.

7. Generation of gas from dangerous petroleum.

8. Cleaning or smoothing, roughening, etc., of articles by a jet of sand, metal shot or grit or other abrasive propelled by a beast of compressed air or steam.

9. Liming and tanning of raw hides and skins and processes identical thereto.

10. Manufacture of Pottery.

11. Manufacture in chemical works and processes identical thereto.

12. Printing Presses and Type Foundries-Certain lead processes carried therein.

13. Compression of Oxygen and Hydrogen produced by electrolysis of water.

14. Process of extracting oils and fats from vegetable and animal source in solvent extraction plants.

(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 on.(3)This 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 State Government may, by notification in the official Gazette, appoint in this behalf.

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 may be practicable, a fragment of a bursting bottle or 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 whether bottles are filled by means of an automatic machine so constructed that no fragment of a bursting bottle can escape, and(ii)where a machine is so constructed that only one arm of the bottles 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, screwing, wiring, foiling, capsuling, sighting or labelling bottles or syphons :(a)suitable face-guards to protect the face, neck and throat, and(b)suitable gauntlet for

both arms to protect the arm and at least half of 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 2 shall, while at work in such process, wear the face-guards and gauntlets provided under the provisions of the said paragraph.

II

Electrolytic plating or oxidation of metal articles by use of an electrolyte containing chromic acid or other chromium compounds

1. Definitions.-For the purposes 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)"Both" means any vessel used for an electrolytic chromium process or for any subsequent process ;(c)"Employed" means in paragraphs 5, 7, 8, and 9 of of this Schedule, employed in any process involving contact with liquid from a bath ; and(d)"Suspension" means suspension from employment in any process involving contact with liquid from any bath by written certificate in the Health Register, signed by the Certifying Surgeon, who shall have power of suspension as regards all persons employed in any such 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 means and shall operate on the vapour or spray given off in the process as near as may 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 toomen and young persons.-No woman, adolescent or child shall be employed or permitted to work at a bath.

4. Floor of work-rooms.-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 water proof 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 a 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 be taken place at the factory.

(b)A Health Register in the prescribed Form No. 17 shall be kept by the occupier of the factory and there 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 easily and 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.

III

Manufacture and repair of electric accumulators

1. Savings.-This Schedule shall not apply to the manufacture of repair of electric accumulators or part thereof not containing lead or any compound of lead : or to the repair on the premises, of any accumulator forming part of a stationary 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 or 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 of raw oxide 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 of lead.(b)Pasting.(c)Drying of pasted plates.(d)Formation with lead during ("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 air space no height over 12 feet shall be taken into account.

6. Ventilation.-Every work-room shall be provided with inlets and outlets of adequate size as to secure and maintain efficient ventilation in 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 paster working nearest to him shall not be less than five feet.

8. Floor of work-rooms.-(1) The floor of every room in which a lead process is carried on shall be-

(a)of cement or similar material so as to be smooth an impervious to water;(b)maintained in sound condition ; and(c)kept free from materials, plant, or other obstruction not required for, or produced in, the process carried on in the 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 cleaned 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 hose pipe.

9. Work-benches.-The work-benches at which any lead process in 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 after 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 cleaned daily ;and every work-bench 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 being carried on.

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

(a)Melting of lead of or materials containing lead ;(b)Manipulation of raw oxide of lead, unless done in an enclosed apparatus so as to prevent the escape of dust into the work-room ;(c)Pasting;(d)Trimming, brushing, filling or any other abrading or cutting of pasted plates giving rise to dust;(e)Lead burning, other than-(i)"tacking" in the formation room ;(ii)chemical burning for the making of lead linings for cell cases necessarily carried on in such a manner that the application of efficient exhaust is impracticable.Such exhaust draught shall be effected by mechanical means and shall operate on the due or fume given off as nearly as may be to 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 pots.-The products of combustion produced in the heating of any melting pot shall not be allowed to escape into a room in which persons work.

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 work-room, except when dross is being deposited therein.

13. Container for lead waste.-A suitable receptacle shall be provided in every work-room 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 2 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 damped unless 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 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 a day of which due notice shall be given to all concerned.

"First employment" means first employment in a lead process in the factory or workshop and also re-employed therein in a lead process following any cessation 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 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 of 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 as regards persons employed in the manipulation of raw oxide of lead or in pasting, head coverings. The head coverings 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, and (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. Clonk room.-There shall be provided and maintained for the use of all persons employed in a lead process-

(a)a cloak-room for clothing put off during working hours with adequate arrangements for drying the clothing if wet. Such accommodation shall be separated 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 cleansing material and of nail brushes ;(b)there shall, in addition, be provided means of washing in close proximity to the rooms in which manipulation of raw oxide of lead or pasting is carried on if required by 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 persons this rule 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 sufficient supply of soap

and clean towels.

22. Food, drinks, etc., prohibited in work-rooms.-No food, drink, pan, supari or tobacco shall be consumed or brought by any worker into any workroom in which any lead process is carried on.

IV

Glass 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 condition in a factory or otherwise, any of the requirements of this Schedule can be suspended or relaxed without danger to the persons employed therein, or that the application of this schedule or any part thereof is for any reason impracticable, he may, by certificate in writing, authorise such suspension or relaxation, as may be indicated in the certificate for such period and on such conditions as he may think fit.

2. Definitions.-For the purpose of this 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(b)"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 and a quantity of soluble lead compound exceeding, when calculated as lead monoxide, five per cent of the dry weight of the portion taken for analysis.The method of treatment shall be as follows :A weighed quantity of the material which has been dried at 100 degrees 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 per cent 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 filterate shall then be precipitated as lead sulphide and weighed as lead sulphate.(c)"Suspension" means suspension from employment in any process specified in Paragraph 3 by written certificate in the Health Register Form No. 17 signed by the Certifying Surgeon who shall have power of suspension as regard all persons employed in any such process.

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

(a)the mixing of raw materials to form a "batch";(b)the dry grinding, glazing and polishing of glass or nay article of glass ;(c)all processes in which hydrofluoric acid fumes or ammoniacal 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 woman or young person shall be employed or permitted to work in any of the operations specified in paragraph 3 or at any place where such 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 material so as to be smooth and impervious to water ;(b)maintained in sound condition ; and(c)cleansed daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room.The work-benches shall-(a)have a smooth surface and be maintained in sound condition ; and(b)be cleansed 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.-The following provisions shall apply to rooms in which glass is treated with 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 guttaparcha and be tight and shall slope gently down to a covered drain ;(c)the work-place 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 exhausted downwards.

7. Storage and transport of hydrofluoric acid.-Hydrofluoric acid shall not be stored or transported except in cylinders or receptacles made of lead or rubber.

8. 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 sterilising his blow pipe.

9. Food, drinks, etc., prohibited in work room.-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 and goggles according to the nature of the work, and such clothing, footwear, etc., shall be worn by the persons concerned.

11. Washing facilities.-There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in the process 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 taps or jets above the trough at intervals of not more than 5 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 ;(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 of 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 the 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 a day of 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.

V

Grinding or glazing of metals and processes incidental thereto

1. Definitions.-For the purposes of this Schedule-

(a)"Grindstone" means a grindstone composed of natural or manufactured sandstone but does not include a metal wheel or cylinder into which blocks of natural or manufactured sandstone are fitted ;(b)"Abrasive Wheel" means a wheel manufactured of bonded emery or similar abrasive;(c)"Grinding" means the abrasion, 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, mop or similar appliance 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 hack or similar tool ;(g)"Rodding" 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 factory 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 supply to any grinding or glazing of metals carried on intermittently and at which no person is employed for more than 12 hours in any week.(3)The Chief Inspector may, by certificate in writing .subject to such condition as he may specify therein, relax or suspend any of the provisions of this Schedule in respect of any factory if 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 or 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 duct of adequate size, air tight and so arranged as to be capable of carrying away the dust, which duct shall be kept free from obstruction and shall be provided 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 any instrument necessary for ascertaining the pressure of air in the said duct; and(c)a fan or other efficient 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, duct and fan would be.

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

Provided that this paragraph shall not prohibit the employment of persons to assist in the manipulation of heavy or bulky articles at any such grindstone, 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 the 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 person, 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.

VI

Manufacture and treatment of lead and certain compounds of lead

1. Exemptions.-Where the Chief Inspector is satisfied that all or any of the provisions of this 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 provisions, subject to such conditions as he may specify therein.

2. Definitions.-For the purposes of this Schedule-

(a)"Lend 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 soluble lead compound exceeding, when calculated as lead monoxide, five per cent of the dry weight of the portion taken for analysis. In the case of paints and similar products and other mixtures 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 weighed 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 per cent 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 filterate shall then be precipitated as lead sulphide and weighed as lead sulphate ;(b)"Efficient exhaust draught" means localised ventilation effected 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 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, 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 a furnace where the reduction or treatment of zinc or lead ores is carried on.(b)The manipulation, treatment or reduction of ashes containing lead, the desilverising of lead or the melting of scrap lead or zinc.(c)The manufacture of solder or alloys containing more than ten per cent of lead.(d)The manufacture of any oxide, carbonate sulphate, chromate, acetate, nitrate or silicate of lead.(e)Handing 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. Prohibitions relating to women and young persons.-No woman or young person shall be employed or permitted to work in 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 paragraphs 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 paragraph 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 the manager of the factory. The certificate shall be kept readily available for inspection by any Inspector and the person granted such a certificate 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 a 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 examinations shall be entered by Certifying Surgeon in the special certificate of fitness granted under paragraph 7.

(2)If at any time the 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 that person.(3)No person whose special certificate of fitness has been cancelled shall be employed unless the Certifying Surgeon, after re- examination, again certifies him to be fit for employment.

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 work-room 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 overalls and head coverings shall be provided, maintained and kept clean by the factory occupier and such overalls and head coverings shall be worn by the person employed.

11. Cleanliness of work rooms, 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 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 any one 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(b)at least one wash-basin for every ten persons employed at any one 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 cleansing material and clean towels.(2)The facilities so provided shall be placed under the charge of a 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 a room separate from any workroom which shall be furnished with sufficient 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. Cloak room.-The occupier shall provide and maintain for the use of persons employed, suitable accommodation for clothing not worn during working hours, and for the drying of wet clothing.

VII

Generation of gas from dangerous petroleum

1. Prohibition relating to women and young persons.-No woman 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 from any burner to the plant. One of these traps shall be fitted as close to the plant as possible. The plant and pipes and valves shall be installed and maintained free from leaks.

3. Generating building or room.-All plants for generation of gas from dangerous petroleum erected after the coming into force of the provisions specified in this Schedule, shall be erected outside the factory building

proper in a separate well ventilated building (hereinafter 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 plants are erected (hereinafter referred to as "the 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 fires from dangerous petrol shall be maintained in an easily accessible position near the plant for generation of gas from dangerous petroleum.

5. Plant to be approved by Chief Inspector.-Gas from dangerous petroleum shall not be manufactured except in a plant for generating gas from dangerous petroleum, the design and construction of which has been approved by the Chief Inspector.

6. Escape of dangerous petroleum.-Effective steps shall be taken to prevent dangerous petroleum from escaping into any drain or sewer.

7. Prohibition relating to smoking, etc.-No person shall smoke or carry matches, fire or naked light or other means of producing a naked light or spark in the generating 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 spark into such room or building.

8. Access to dangerous petroleum or container.-No unauthorised person shall have access to any dangerous petroleum or to a vessel containing or having actually contained dangerous petroleum.

9. Electric fittings.-All electric fittings shall be of flame-proof construction and all electric conductors shall either be enclosed in metal conduits 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 obstructed 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 is working in the generating room or building.

11. Repair of containers.-No vessel that has contained dangerous petroleum shall be repaired in a generating room or building and no repairs to any such vessel shall be undertaken unless live steam 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 dangerous petroleum or inflammable vapour.

Explanatory Note.-"Dangerous Petroleum" means dangerous petroleum as defined in the Petroleum Act, 1934.

VIII

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 steamBlasting 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 of 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 casting" where done as an incidental or supplemental process in connection with the making or metal castings, means the freeing of the casting from adherent sand or other substance and includes the removal of cores and the general Smoothening 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 class shall come into force two years after the coming into operation of this Schedule :Provided further that no woman or young person shall be employed or permitted to work at any operation of sand blasting.Precautions In Connection With Blasting Operation

3. Blasting to be done in blasting enclosure.-(1) Blasting shall not be done except in a blasting enclosure and no work other than blasting and any work immediately incidental thereto and clearing and repairing of the enclosure including the plants and appliances situated therein, shall be performed in a blasting enclosure. Every door, aperture and joint of blasting enclosure, shall be kept closed 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 enclosures, and from apparatus connected therewith, into the air of any room.(3)Provision 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 as an 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 therein, 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 the ventilating 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 or 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 workman employed in or in connection with blasting in the factory. Any defect found on 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 helmets, gauntlets and overalls.-(1) There shall be provided and maintained for the use of all persons who are employed in a blasting chamber, whether in blasting or in any work connected therewith or in cleaning such a chamber, protective helmets of a type approved any a certificate of the Chief inspector, and every such person shall wear the helmet provided for his use while he is in the chamber and shall not remover it until he is outside the chamber.

(2)Each protective helmet shall carry a distinguishing mark indicating the person by whom it is intended to be used and no person shall be allowed or required to wear a helmet not carrying his mark or a helmet which has been worn by another person and has not since been thoroughly disinfected.(3)Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate of not less than six cubic feet per minute.(4)Suitable gauntlets and overalls shall be provided for the use of all persons while performing blasting or assisting at blasting and every such person shall, while so engaged wear the gauntlet and overall so provided.

6. Precautions in connection with cleaning and other work.-(1) Where any person is engaged upon cleaning of any blasting apparatus or blasting enclosure or of any apparatus or ventilating plant connected therewith or the surroundings thereof or upon any other work in connection with any blasting apparatus or blasting enclosure or with any apparatus or ventilating plant 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 arty cleaning operation referred to in clause. 5, and with the removal of dust from filtering or settling 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, gauntlets and overalls required to be provided by clause. 5 shall be provided outside and conveniently near to every blasting enclosure and such accommodations shall be kept clean. Helmets, gauntlets and overalls when not in actual use shall be kept in this accommodation.

8. Maintenance and cleaning of protective wear.-All helmets, gauntlets, overalls and other protective devices or clothing provided and worm for the purpose of this Schedule, shall be kept in good condition and so far as is reasonably practicable shall be cleaned on every week day 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 inhalation. Vacuum cleaners shall, wherever 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 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 in any blasting 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 of 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 exempt 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) and that the manufacture or process cannot be carried on without the use of such abrasive or that owing to the special conditions or special method of work or otherwise any requirement of this Schedule can be suspended either temporarily or permanently, or can be relaxed without endangering the health of the persons employed or that application of any such requirements is for any reason impracticable or inappropriate, he may, with the previous sanction of the State Government, by an order in writing, exempt the said factory or class of factory from such provisions of this Schedule, to such an extent and subject to such conditions and for such period as my be specified in the said order.

(2)Where an exemption has been granted under sub-clause. (1) a copy of the order shall be displayed at a notice board at a prominent place at the main entrance or entrances to the factory and also at the place where the blasting is carried on.

IX

Liming and tanning of raw hides and skins and 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 positions in the factory where they may be easily and conveniently read by the person employed.

(2)A copy of warning notice as to anthrax in the form specified by the Chief Inspector shall be given to each person employed when he is engaged, and subsequently if still employed, on the first day of each calendar year.(3)Cautionary notices as to the effects of chrome on the skin shall be affixed in prominent positions in every factory in which chrome solutions are used and such notices 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 of the "First Aid" box or cupboard and the name of the person in-charge of such box or cupboard.(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 notices 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)a waterproof footwear, leg coverings, aprons and rubber gloves for persons employed in processes involving contact with chrome solutions including the preparation of such solutions ;(b)protective footwear, aprons and gloves for persons employed in the handling of hides or skins other than in processes specified in clause, (a) :Provided that gloves shall not be required of for persons fleshing by hand or where there is no risk of contact with lime, sodium sulphide or other caustic liquor.

3. Washing facilities, mess-room and, cloak-room.-There shall be provided as maintained in a cleanly state and in good repair for the use to 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 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(b)at least one wash basin for every ten such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water together with, in either case, a sufficient supply

of nail brushes, 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 or boiling water ;The mess-room shall-(1)be separate from any room or shed in which hides or skins are stored, treated or manipulated ;(2)be separate from the cloakroom ; and(3)be placed under the charge of a responsible person ;(d)suitable accommodation for clothing not worn during working hours and another accommodation for protective clothing and with adequate arrangements for dying up the clothing 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-room.-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 solutions to be made twice a week by a responsible person;(b)provide and maintain a sufficient supply of suitable ointment and impermeable waterproof plaster in a box readily accessible to the worker and used solely for the purpose of keeping the ointment and plaster.

X

Manufacture of pottery

1. Definitions.-For the purposes of this Schedule-

(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 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)"Fettling" includes scalloping, towing, and papering, sand sticking, brushing or any other process of cleaning of pottery ware in which dust is given off;(d)"headless Glaze" means a glaze which does not contain more than one per cent of its dry weight of a lead compound calculated as lead monoxide;(e)"Low solubility glaze" means a glaze which does not yield to dilute hydrochloric acid more than five per cent of its dry weight of a soluble lead compound calculated as lead monoxide when determined in the manner described below :A weighed quantity of the material which has been dried at 100 degree 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 per cent 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 filterate shall then be precipitated as lead sulphide and weithed

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 all places where 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:

(i)All Processes involving the manipulation or use of a dry and unfritted lead compound.(ii)The fettling operations of any kind, whether on greenware 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.(iii)The sifting of clay dust or any other materials for making tiles or other articles by pressure, except where-(a)this is done in a machine so enclosed as to effectually prevent the escape of dust; or(b)the material to be sifted is so damp that no dust can be given off.(iv)The pressing of tiles from the clay dust, an exhaust opening being connected with each press ; this clause shall also apply to the pressing from clay dust or articles other than tiles, unless the material is so damp that no dust is given off.(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 apply to the fettling of other articles made from clay dust, unless the material is so damp that no dust is given off.(vi)The process of loading and unloading of saggars where handling and manipulation of ground and powdered flint, quartz, alumina or other materials are involved.(vii)The brushing of earthenware biscuit, unless the process is carried on in a room provided with efficient general mechanical ventilation or other ventilation which is certified by the Inspector of Factories as adequate, having regard to all the circumstances of the case.(viii)Fettling of biscuit-ware which has been fired in powdered flint or quartz except where this is done in machines so enclosed as to effectually prevent the escape of dust.(ix)Ware cleaning after the application of glaze by dipping or other process.(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.(xi)Sieving or manipulation of powdered flint, quartz, clay grog or mixture of these materials unless it is so damp that no dust can be given off.(xii)Grinding of tiles on a power driven wheel unless an efficient water spray is used on the wheel.(xiii)Lifting and conveying of materials by elevators and conveyor unless they are effectively enclosed and so arranged as to prevent escape of dust into the air in or near to any place where persons are employed.(xiv)The preparation or weighing out of flow material, lawning of dry colours, colour dusting and colour blowing.(xv)In mould making unless the bins or similar receptacles used for holding plaster of paris are provided with suitable covers.(xvi)The manipulation of calcined material unless the material has been made and remains so wet that no dust is given off.

3. Separation of processes.-Each of the following processes shall be carried on in such a manner and under such conditions so as to secure effectual separation from one another, and from other wet processes-

(a)crushing and dry grinding or sieving materials, fettling, pressing of tiles, drying of clay and greenware, loading and unloading of saggars;(b)all processes involving the use of a dry lead compound.

4. Prohibition on use of glaze.-No glaze which is not a leadless glaze or low solubility glaze shall be used in a factory in which pottery is manufactured.

5. Prohibition relating to women and young persons.-No woman and young person shall be employed or permitted to work in any of the operations specified in clause. 2, or at any place where such operations are carried on.

6. Provision of screen to potter's wheels.-The potter's wheel (Jolly and Jaggers) shall be provided with screens or so constructed as to prevent clay scrapings being thrown off beyond the wheel.

7. Control of dust during cleaning.-(1) All practical measures shall 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 rising into the air during the cleaning process which shall be out after work has ceased.

8. Floor of certain workrooms.-The floors of potter's shops, slip houses, dipping houses and ware cleaning rooms shall be hard, smooth and impervious and shall be thoroughly cleaned daily by a moist method by an adult male.

9. Medical Examination.-(1) All persons employed in any process included under clause. (2) shall be examined by the Certifying Surgeon Surgeon within 7 days preceding or following the date of their first employment in such process ; thereafter all persons employed in any process included under clauses. (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 clauses. (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. 5 and such certificate shall be in the custody of the manager of the factory. The certificate shall be kept readily available for inspection by any Inspector and the person granted such a certificate shall carry with him while at work, a token giving reference to such certificate.

11. Protective equipment.-(1) The occupier shall provide and maintain suitable over-alls and head coverings for all persons employed in process included under clause. 2.

(2)The occupier shall provide and maintain suitable aprons of a waterproof 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 pug mill workers.(3)Aprons provided in pursuance of clause. 11 (2) shall be thoroughly cleaned daily by the wearers by sponging or other wet process. All over-alls and head coverings shall be washed, cleaned and mended at least once a weak and this washing, cleaning or mending shall be provided for by occupier.(4)No person shall be allowed to work in emptying sacks of dusty materials, weighing out and mixing of dusty materials and charging of ball mills and plungers without wearing a suitable and efficient dust respirator.

12. Washing facilities.-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 processes 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 any one 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 cleans towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.

13. Time allowed for washing.-Before each meal and before the end of the day's 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 square feet 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 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 any work-room in which any of the processes mentioned in clause. 2 are carried on and no person shall remain in any such room during intervals for meal or rest.

16. Cloak-room, etc.-There shall be provided and maintained for use of all persons employed in any of the processes mentioned in clause. 2-

(a)a cloak-room for clothing put off during working hours and such accommodation shall be separate from any mess-room ;(b)separate and suitable arrangements for the storage of protective equipment provided under clause. 11.

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

(a)unglazed or sault glazed bricks and tiles ; and(b)architectural' terra-cotta made from plastic clay and either unglazed or glazed with a leadless glaze only.

18. Exemptions.-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 reasons.

XI

Manufactures in chemical works and processes incidental theretoApplication.-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 in derogation of any provisions of the Factories Act or any other rules made thereunder or any other Act or rules.Definitions.-'Chemical works' means any factory or such parts of any factory as are named in Schedule I to these Rules.'Breathing Apparatus' means (I) a helmet or face-piece with necessary connections 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 Chief Inspector.'Life-belt' means a belt made of leather or other suitable materials which can be securely fastened around 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 localised 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 out.'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.'Chlorate' means chlorate or perchlorate.'Caustic' means hydroxide of potassium or sodium.'Caustic pot' means a metal pot fixed over a furnace of flue and surrounded by brick-work, such as is commonly used for concentrating caustic liquor, whether such pot be 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 benzene or its homologues, and the making of explosives with the use of any of these substances.Exemptions.-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 process or 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 such order prescribe.

Part I

Applying to all the works in Schedule IGeneral

1. House-keeping.-(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, passage 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 chemicals of solvents shall be used by workers for any purpose apart from the processes for which they are supplied.

(ii)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 articles shall be stored or consumed on or near any part of the plant.

(b)Testing.-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, or any new manufacture, all possible steps shall be taken to ascertain definitely all the hazards involved both from the actual operations 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 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 safety equipment and shall be accompanied round dangerous plant by a responsible official.

6. Instrument.-All instruments, such as pressure gauges, thermometres, flow meters 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 conveyance 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 service installations shall be Kept readily available for perusal.

8. Manhole.-No manhole shall be opened for entry until effective fencing has been erected around 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 such emergencies, and the general hazards of their employment.

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

11. Electrical apparatus.-Electrical plant, fitting, 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 need of the process.

13. Packing, storage and transport of chemicals.-Chemicals shall be packed and stored in containers suitable for the purpose and of 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 of a 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) Buildings and plants shall be sited with due regard 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 connected with the processes in adjacent buildings. 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 the different parts of a process. They shall be spaced at sufficient distance apart and shielded to prevent damage to each other in the event of fire or explosion, and shall be safeguard by the provision of suitable blow-out pannels 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, when they shall be rendered fire-resistant. The roof shall be of light fire- resistant construction and floor shall be of impervious, fire-resistant material and shall be regularly maintained in such condition.

15. Dangers of ignition (including lighting installation).-(a) No internal combustion engine, and no electric motor or other electric equipment, and fittings and fixtures capable of generating sparks or otherwise causing combustion shall be installed or used in a building or danger zone. Electrical conductor 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 conveyors 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 naked light or spark in or on, or about any part of the factory where there is liability to fire or explosion from inflammable gas, vapour or dust and all incandescent electric lights in such parts shall be in double air-tight glass covers.(f)Prominent notices in the language understood by the majority of the workers and legible by day and by night, prohibiting smoking, the use of naked light, 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 in a factory.(g)Non-sparking tools.-A sufficient supply of spades, scrapers and pails made from non-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 plant, 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 tanks to prevent static sparking. Where necessary, humidity shall be controlled.

(b)Mobile tank wagons shall be earthed during filling and discharge and precautions shall be taken to ensure that earthing is effective before such filling or discharge takes place.(c)Lighting protection.-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 hot agency likely to cause ignition. So far as practicable, the heating medium shall be automatically controlled at a pre-determined temperature below the danger temperature.

18. Escape of materials.-(a) Provision shall be made in plants, 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 substances shall be removed expeditiously and efficiently at the point of liberation. The effluents shall be trapped and rendered safe outside the danger area.

19. Leakage of inflammable liquids.-(a) Provision shall be made to confine by means of bund walls, sumps, etc., possible leakages from vessel containing infammable liquids.

(b)Adequate and suitable fixed fire-fighting appliances shall be installed in the vicinity of such vessels.

20. Cleaning of empty containers, etc.-(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 materials.-Combustible and inflammable materials shall not be stored in close proximity to chemicals which are liable to cause ignition.(c)Rubbish shall be removed from building without delay and placed in special metal containers provided with close fitting lids. The contents shall be removed daily and suitably dealt with. Waste products containing inflammable or

explosive materials shall not be placed on rubbish heaps but shall be destroyed in an appropriate manner.

21. Installing of pipe lines 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 or mechanical damage from vehicles and shall be so laid that they drain throughout without 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 positions of all cocks and valves shall be clearly indicated on the outside.

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

23. Safety valves.-Every still and every close vessel in which gas is evolved or into which gas is passed, and in which the pressure is liable to rise to a dangerous degree, shall have attached to it a pressure gauge, and a proper safety valve or other equally 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 provision, 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 or plant shall be fitted with alarm systems, automatic cut-offs or other devices to prevent

overcharging or otherwise endangering the plant.

(b)The amount of inflammable material taken into a building in bulk containers at any one 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.Gas, Vapour, Fume Or Dust Risks

27. Escape of gases, 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 measure provided in compliance of the foregoing, the process 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)Effluents which may contain or give rise in the presence of other effluents to such gases shall be provided with independent drainage system 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 as to prevent the emission of vapour or fumes about such staging.

(b)Where such staging is provided to give access to higher levels in large plants, effective means shall be provided at all 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 toeboards and the floors and staging shall be impervious and easily cleaned.

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 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 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 in every month by 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 respirators.(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 whenever required in writing by the Chief Inspector there shall be affixed official cautionary notice regarding grasing burns. Such notice shall be legible by day and by night 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 operatives-

(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 exit 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 or cold articles and sharp or rough object; 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 Schedule II 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 equipment.

34. Cloak rooms.-There shall be provided and maintained for the use of all persons employed in the processes specified in Schedule II to these rules suitable cloak room, for clothing put off during working hours and a suitable place separate from the cloak room, for the storage of overalls or working

clothes. The accommodation so provided shall be placed in the charge of a responsible person, and shall be kept clean.

35. Special bathing accommodation.-(a) There shall be provided for use of all persons employed in the processes specified in Schedule III to these rules separate sanitary conveniences and sufficient and suitable bathing facilities, which shall be to the satisfaction of 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, any absorber, boiler,culvert, drain, flue, gas purifier, sewer, still, tank, tower, vitriol chamber or other place where there is reason to apprehend the presence of dangerous gas or fume, a responsible person appointed in writing by the occupier for the purpose, shall personally examine such place and shall certify in writing in a book kept for the purpose either that such place is isolated and sealed from every source of such gas or fume and is free from danger, or that it is not so isolated and sealed any 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 stays 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 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 cleaned and ventilated. When opening vessels and breaking joints in pipe lines, respirators, 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 other suitable inorganic materials. A passageway 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 spilt acid and all precautions shall be taken to prevent workers being exposed to fumes.

Corrosive Or Deleterious Substances Risks

39. Buildings.-All buildings and plants shall be sited with due regard to possible dangers from accidental liberation or 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 materials 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 localise any 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 pipe-lines where there is danger involved to maintenance and other workers from such leakage.(c)Passages and work-stations 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 substances and means shall be provided for rendering safe any 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 foothold on the top or the sides.

(b)Such vessel shall, unless its edge is at least three feet above the adjoining ground of platform, be securely fenced to a height or at least three feet above such adjoining ground or platform.(c)No plank or gangway shall be placed across or inside any such vessel, unless such plank or gangway is at least 18 inches wide, and is 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 arty surrounding brick or other work, is either less than 18 inches in width or is 18 inches or more 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, and(ii)that part the sides of brine evaporating pans which require raking, drawing or filling.

44. Ventilation.-Adequate ventilation shall be provided an maintained at all times in rooms 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 liquids shall be provided and maintained.

46. Treatment of personnel.-In all places where strong acids or dangerous corrosive liquids are used-

(a)there shall be provided for use in an emergency-(i)adequate and readily accessible means of drenching with cold water for persons, and the clothing of persons, who have become splashed with such liquid ;(ii)adequate special arrangements 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 so carried on as to prevent risk of personal 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 day's 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 pocket 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 an suitable facilities for washing which shall include soap and nail brushes or other suitable means of cleaning and facilities 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 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.

49. Mess-room facilities.-In every factory there shall be provided and maintained for the use of those remaining on the premises during the rest intervals, suitable and adequate mes-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 natural and artificial lighting. It shall contain all the items shown in Schedule IV.Where persons of both sexes are employed, arrangements shall be made at the Ambulance Room for their separate treatment.The Ambulance Room shall be placed under the charge of a qualified nurse or other person trained in First Aid, who shall always be readily available during 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 suitably constructed ambulance van for the purpose of removal of serious case of accidents or sickness, unless arrangements have been made with hospital or other place in telephonic communication with the factory for obtaining such a carriage immediately when required.

51. Medical Personnel.-There shall be a wholetime Medical Officer in every factory employing 250 persons or more.

52. Medical examination.-In a chrome process or in a nitro or amino process :

(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 Certifying Surgeon, by a signed entry in the Health Register.(c)Every person employed in the process shall be examined by the Certifying Surgeon once in each calendar month (or at such other intervals as may be prescribed in writing by the Chief Inspector) on a date/dates of which due notice shall be given to all concerned.(d)Every person so employed shall present himself at the appointed time of examination by the Certifying Surgeon as provided in (b) and (c) of this rule.(e)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 Certifying Surgeon and entered in the Heath Register.

53. Duties of-workers.-Every person employed shall-

(a)report his foreman any defect in any fencing, breathing apparatus, appliance or other requisite provided in pursuance of these rules, as soon as he becomes aware of such defect;(b)use 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 Rule. 36 (a) and (b).

54. No person shall-

(a)remove any fencing provided in pursuance of Rule. 43 unless duly authorised ; or(b)stand on the edge or on the side of any vessel to which Rule. 43 applies;(c)pass or attempt to pass any barrier erected in pursuance of Rule. 43 ;(d)place across or inside any vessel to which Rule. 43 applies any plank or gangway which does not comply with that Regulation or make use of any such plank or gangway which 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, scraper or pail when cleaning out or removing the residues from any chamber, still, tank or other vessel which has contained sulphuric acid or hydrochlroric acid or other substances, 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.

I

"Chemical Works" means any work or that of a work in which-

1. The manufacture or recovery of any of the following is carried on :

(a)Carbonates, chromates, chlorates, oxides or hydroxides of potassium, sodium, iron, aluminium,, cobalt, nickel, arsenic, antimony, zinc or magnesium.(b)Ammonia and the hydroxide and salts 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 ore 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 or the drainage therefrom is subject to any chemical process for the recovery of sulphur, or for the utilisation of any constituent 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 is used in any process of chemical manufacture ;

6. (a) gas tar or coal tar or any compound product or resdue of such tars is distilled or is used in any process of chemical manufacture ;

(b)synthetic colouring matters or their intermediaries 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.

II

1. A nitro or amino process (overalls or suits working clothes and protective footwear).

2. Grinding raw materials in chrome process (overall suits).

3. The crystal department and in packing in a chrome process (protective coverings.)

4. Packing in a chrome process (respirators).

5. Any room or place in which chlorate is crystalised, ground or packed (clothing of woollen material and boots or overshoes, the soils of which have 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 charge drawn from such chambers (suitable respirators).

8. Drawing off of molten sulphur from sulphur pots in the process of carbon disulphide manufacture (overalls, face-shields, gloves and footwear of fireproof material).

III

1. A nitro or amino process.

2. The crystal department and the packing 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 used.

IV

(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*4*¼ inches ;(x)Twelve plain wooden splints, 14*3*¼ inches ;(xi)Six plain wooden splints, 10*2*½ inches ;(xii)Three woollen blankets ;(xiii)One pair artery forceps ;(xiv)One bottle of brandy ;(xv)Two medium size sponges ;(xvi)Three hand towels ;(xvii)Two kidney trays ;(xviii)Four carbolic soaps ;(xix)Two glass tumblers and two wine glasses ;(xx)Two clinical thermometers ;(xxi)Graduated measuring glass with teaspoon ;(xxii)One eye bath ;(xxiii)One bottle (2 lbs.) carbolic lotion 1 in 20 ;(xxiv)Two chairs;(xxv)One screen;(xxvi)One electric hand torch ;(xxvii)An adequate supply of anti-tetanus serum ;(xxviii)Two first aid boxes, each containing (a) 24 small sterilized dressings, (b) 12 medium size sterilized dressings, (c) 12 large size sterilized dressings, (d) 12 large size sterilized burn dressings, (e) 12 half ounce packets sterilized cotton wool, (f) one snake bite lancent, (g) one pair scissors, (h) two (1 oz.)

bottles of potassium permanganate crystals, (i) one (4 oz.) bottle containing a two per cent alcoholic solution of iodine, (j) one (4 oz.) bottle of sal-volatile having the dose and mode of administration indicated on the label, and (k) one 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 ; orII. chlorate or bleaching power is manufactured ; orIII. (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 ; orIV. crude shale oil is refined or processes incidental thereto are carried on ; orV. nitric acid is used in the manufacture of nitro compounds ; orVI. the evaporation of brine in open pans and the stoving of salt are carried on; orVII. the manufacture or recovery of hydrofluoric acid or any of its salts is carried on ; andVIII. work at a furnace where the treatment of zinc ores is carried on.

1. Entry of gas, tar or coal tar still.-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 and/or receiver ;and in addition, blank flanges shall be inserted between the disconnected part, 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 2.5 grains of free chlorine gas per cubic foot.A register containing details of all such tests shall be kept in a 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 substances are broken or any liquor agitated by hand means shall be taken to prevent, as for 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 operations shall be cleansed daily;(b)cartridges shall not be filled by hand except by means of suitable scoop;(c)every drying stove shall be efficiently ventilated to the outside air in such a manner that hot air from the stove shall not be drawn into any workroom ;(d)no person shall enter a stove to remove the contents until a free current of air has been passed through it; and(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 ground or the working platform, and at a point where it cannot be blown back again into the workroom.

4. Precautions during caustic grinding, etc.-(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 ; and(iv)crushing, grinding or mixing of material or cartridge filling in a nirto or amino process;an efficient exhaust draught shall be provided.

5. Chlorate manufacture.-(a) Chlorate shall not be crystallised, ground or packed except in a room or place not used for any other purpose, the floor of which room 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, 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 on the employment of young persons and women.-(a) Persons under 18 years of age and women shall not be employed in any process in which hydrofluoric acid fumes or ammonical vapours 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 furnacee 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 a chrome process 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 bisulphide, chloride of sulphur, benzene, carbon tetrachloride, trichloroethlene, any carbon chlorine compound, or any mixture containing any of such materials.

7. Duties of employees.-Every person employed-

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

XII

Printing presses and type foundries and certain lead processes carried therein

1. Exemption.-Where the Chief Inspector is satisfied that all or any of the provisions of the Schedule are not necessary for the protection of persons employed he may, by certificate 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 this Schedule-

"Lead material" means materials containing not less than five per cent of lead ;"Lead process" means-(a)the melting of lead or any lead material for casting and mechanical composing; and(b)the recharging of machines with used lead material; or(c)any other work including removal of dross from melting pots, cleaning of plungers ; and(d)manipulation, movement or other treatment of lead material."Efficient exhaust draught" means localised ventilation effected by heat or mechanical means, for the removal of gas, vapour, dust, or fumes so as to prevent them from escaping into the air of 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 pots.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 he may be at its point of 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 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 work-room near the machine except when the dross is being deposited therein.

7. Floor of work-room.-The floor of every work-room where lead process is carried on shall be-

(a)of cement or similar material so as to be smooth and impervious to water;(b)maintained in sound condition ; and(c)shall be cleansed throughout daily after being thoroughly damped 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 on the premises during the meal 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 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 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 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.

10. Medical examination.-(a) Every person employed in lead process shall be examined by the Certifying Surgeon within 14 days of the first employment in such processes and thereafter shall be examined by the Certifying Surgeon at intervals of not more than 3 months, and a record of such examination shall be entered by the Certifying Surgeon in the special certificate of fitness in Form No. 27.

(b)A Health Register containing names of all persons employed in any lead process shall be kept in Form No. 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 work-room.-No food, drinks, pan and supari or tobacco shall be consumed or brought by any worker into any work-room in which any lead process in carried on.

XIII

Compression of oxygen and hydrogen produced by the electrolysis of water

1. The room in which electrolyser 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 in-let; 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, however, that if the electrolyser plant is fitted with automatic recorder of purity of oxygen and hydrogen with alarm lights, it shall be sufficient if the purity of the gases is tested at hourly intervals at the suction end of the compressor only.

3. The oxygen and hydrogen gases shall not be compressed if their purity as determined under clause. 2 above falls below 98 per cent at any time.

4. There shall be at least two gas holders for each kind of gas compressed and the gas holder for same gas shall be provided with suitable arrangements to ensure that no gas holder is connected to the compressor and to the electrolyser at the same time, and only one gas holder is connected to the compressor line at any one time.

5. The bell of any gas holder shall not be permitted to go within 30 c.m. (12 inches) of its lowest position when empty, and a visual and an audible warning signal be fitted to the gas holder to indicate that this limit is reached.

6. The water and caustic soda 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 possibility of wrong connections leading to 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 switchboard or at 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 of flame-proof 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 gas holders 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 substances 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 electrolysers unless the same is certified by the competent person under whose direct supervision erection or repairs are carried on to be in a safe condition and the terminals have been checked for the polarity as required by Rule. 7.

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

95. Notification of accidents.

(1)Fatal and serious.-When there occurs in any factory an accident to any worker which result in (a) death, or (b) such injury that there is no reasonable prospect that he will be able to resume his employment in the factory within 20 days, such accidents shall be called in all prescribed communications "Fatal" or "Serious" as the case may be, and the manager of the factory shall give notice of the occurrence forthwith by telephone, telegram or special messenger to-(i)the Chief Inspector of Factories, Assam, Shillong, for factories situated in the State of Assam except districts of Sibsagar and Lakhimpur and the Inspector or Factories, in-charge of the Branch Office at Jorhat, for factories situated in the districts of Sibsagar and Lakhimpur ; in latter case, however, a copy of the accident report is to be sent to the Chief Inspector of Factories, Assam, Shillong ;(ii)the District magistrate of, if the District Magistrate by order so directs, the Sub-divisional Officer ;(iii)the Commissioner for Workmen's Compensation appointed under Section 20 of the Workmen's Compensation Act, 1923 ;(iv)in the case of fatal accidents only, the officer- in-charge of the Police Station within the local limits of which the factory is located ; and(v)the relatives of the injured or deceased person.Report by special messenger shall be in Form No. 18 and those sent by telephone or telegram shall be confirmed within 48 hours by a written report in that form.Note.-The telegraphic address of the Chief Inspector is Facinspec, Shillong.(2)Minor.-When there occurs in any factory an accident to any worker less serious than those described in sub-rule (1) but which prevents or is likely to prevent him from resuming his employment in the factory within 48 hours after the accident occurred, such accident shall be recorded by the manger of the factory and reported by him in Form No. 18 as soon as practicable, but in any case within 72 hours of its occurrence, to the authorities mentioned in clauses, (i), (ii), and (iii) of sub-rule. (1). Such accidents shall be called in prescribed communications "minor accident".(3)Supplementary reports.-(a) When an accident which has been reported to the Inspector as either "Serious" or "Minor" afterwards proves to be "Fatal" the manager of the factory shall make the necessary correction in the Supplementary export which shall be sent forthwith to the authorities mentioned in clauses, (i), (ii), and (iv) of sub-rule. (1).(b)When an accident which has been reported to the Inspector as "Minor" afterwards proves to be "Serious" or when one reported as "Serious" afterwards proves to be "Minor" the manager of the factory shall make the necessary correction in a supplementary report which shall be sent forthwith to the authorities mentioned in clauses, (i), (ii), and (iii) of sub-rule. (1).(4)Site of fatal accident.-Where loss of life has immediately resulted from an accident, the place where the accident occurred shall be left as it was immediately after the accident until the expiration of at least three days after the time when the notice required under sub-rule (1) was given, or until the visit to the place by an Inspector, whichever first happens, unless compliance with this sub-rule would tend to increase or continue the danger.(5)Explosions, fire and accidents to plant.-When there occurs in any factory any explosion, fire, collapse of buildings, or serious accident to the machinery or plant whether or not attended by personal injury or disamblement, such occurrence shall be reported by the manager of the factory within five hours of its occurrence to the authorities mentioned in clauses, (i) and (ii), of Rule. 95 (1). Such reports shall be in Form No. 18- A.

96. Notice of poisoning or disease.

- A notice in Form No. 19 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, phosphorous, mercury, manganese, arsenic, carbon bisulphate or benzene poisoning ; or of poisoning by nitrous fumes, or by halogens or halogen derivatives of the hydrocarbons of the aliphatic series ; or of chrome ulceration, anthrax, silicosis, toxic anaemia, toxic jaundice, primary optheliomatous cancer of the skin, or pathological manifestations due to radium or other radio-active substances or X-rays.

Chapter X
Supplemental

97. Procedure in 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 State Government or to such authority as the State Government may appoint in this behalf and shall be in the form of a memorandum setting forth concisely the grounds of objection to the order and bearing court-fee stamps in accordance with Article. 11 of Schedule II to the Court Fees Act, 1870, and shall be accompanied by a copy of the order appealed against.(2)Appointment of assessors.-On receipt of the memorandum of appeal, the appellate authority shall, if it thinks fit or if the appellant has requested that appeal should be heard with the aid of assessors, call upon the body declared under sub- rule (3) to be representative of 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 of 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-rule. (1) whether he is a member of one or more of the following bodies :

1. The Indian Tea Association.

2. The Assam Tea Planters Association.

3. The Assam Rice Mills Association.

4. The Assam Oil Mills Association.

The body empowered to appoint the assessor shall-(a)if the appellant is a member of one of such bodies, be that body ;(b)if he is a member of two such bodies, be the body which the appellant desires should appoint such assessor, and(c)if the appellant is not a member of any of the aforesaid bodies or if he does not state in the memorandum which of such bodies he desires should appoint the assessors, by the body which the appellant authority considers to be the best fitted to represent

the industry concerned.(4)Remuneration of assessors.-An assessor appointed in accordance with the provisions of sub-rules. (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. Me shall also receive the actual travelling expenses. The fees and travelling expenses shall be paid to the assessor by Government but where assessors have been appointed at the request of the appellant and the appeal has been decided wholly or partly against him the appellate authority may direct that the fees and travelling expenses of the assessor shall be paid in whole or in part by the appellant.

98. Display of notices.

- The abstract of the Act and of the rules required to be displayed in every factory shall be in Form No. 20.

99. Returns.

- The Manager of every factory shall furnish to the Inspector or other Officer appointed by the State 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 or is not working during the year preceding the year the return relates :Provided that the State Government may dispense with this return in the case of any specified factory or of any class of factories or of the factories in any particular area :Provided further that the annual return of holidays shall be dispensed with in case of all factories-(a)which regularly observed Sundays as holidays, or(b)which regularly observed a fixed day in the week as a holiday, or(c)which observe holidays according to a list approved by the Chief Inspector:Provided further that where the Manager of any factory makes any departure from such holidays 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 to the Chief Inspector on or before the 15th July and 15th January of each year a half-yearly return in duplicate in Form No. 22 :Provided that in the case of a factory in which work is carried on only during certain period or periods of the year the Manager shall, if so required by the State Government or if the State Government so directs through the Chief Inspector, submit the annual or half-yearly return, as the case may be, within 15 days after the close of that period or after close of the last of these periods in the year as the case may be.(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. 21.(5)Compensatory holidays-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 which it relates, a return in Form No. 21.(6)Canteen-Annual Return.-The Manager of every factory, notified by the State Government, wherein more than tow hundred and fifty workers are ordinarily employed shall furnish to the Chief Inspector not later than 15th January of the year subsequent to that to which it relates, a return in Form No. 21.(7)Creche-Annual Return.-The Manager of every factory wherein more than fifty women workers are ordinarily employed and providing a creche 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. 21.(8)Shelter, Rest Rooms and Lunch Rooms-Annual Return.-The Manager of every factory wherein more than 150 workers are ordinarily employed shall furnish to the Chief Inspector not later than 15th January of the year subsequent to that to which it relates, a return in Form No. 21.

100. Service of notice.

- The desptach by post under registered of cover of any notice or order shall be deemed sufficient service on the occupier, owner or Manager of a factory of such notice or order.

101. Information required by the Inspector.

- The occupier, owner or Manager of a factory shall furnish any information that an Inspector may 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 of any such information, if made during the course of an inspection, shall be complied forthwith if the information is available in the factory, or if made in writing shall be complied with within seven days of the receipt thereof.

102. Muster-roll.

- The Manager of every factory shall maintain a muster-roll of all the workers employed in the factory in Form No. 25 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 register, a separate muster-roll required under this rule need not be maintained.

103. 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. 26 showing the-(a)Name of injured person (if any) ;(b)Date of accident of dangerous occurrence ;(c)Date of report in 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.

104. 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.

105.

Tire 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 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.

106.

(1)The following precautions shall be taken when fabrics are processed in polymerising or curing machine of fixing prints by the Emulsion Technique, namely :(i)printed fabrics shall be thoroughly dried by passing them over drying cans or through a hot flue 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 hole or opening so that at least 2/3 of it is always open ;(iii)infra-red ray heaters of the machines shall be cut off while running the prints :(iv)the electrical heaters shall be connected 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 ;(v)the electrical heater shall be so located that if thee is any dropping of the solvent due to condensation, it does not directly come in contact with the heaters;(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 heating devices shall also stop ;(vii)the electrical heater shall have thermostats to regulate the temperature so that heater shall automatically cut off, if 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 work room in case of an explosion or in case any pressure is built up ;(ix)filter gauze shall be cleansed at least once a week ;(x)exhaust dust shall be cleansed 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 precaution against risks of explosions, is fit to supervise such work.(3)A register shall be maintained in which the details of tire various checks carried under sub-rule. (2), shall be entered and every entry therein shall be signed by the person making the checks.

XIV

Process of extracting oil and fats from vegetable and animal sources in solvent extraction plants

1. Definitions.-For the purposes of this Schedule-

(a)"solvent extrication plant" means a plant in which the process of extracting oil and fats from vegetable and animal sources by use of solvents is carried on ;(b)"solvent" means an inflammable liquid such as pentanel, hexane and heptane is used for recovery of vegetable oils ;(c)"flame-proof enclosure' as applied to electrical machinery or apparatus means an enclosure that will withstand when covers or other access doors are properly secured as internal explosion of the flammable gas or

vapour which may enter or which may originate inside the enclosure without suffering damage and without communcating internal inflammation or explosion to the external flammable gas or vapour;(d)"competent person" for the purpose of this Schedule shall be at least a member of the Institution of Engineers (India) or, an Associate Member of the said Institution with 10 years' experience in a responsible position as may be approved by the Chief Inspector :Provided that a graduate in mechanical engineering or chemical technology with specialised knowledge of oils and fats with a minimum experience of 5 years in a solvent extraction plant shall also be considered to be competent person :Provided further that the State Government may accept any other qualifications if in its opinion they are equivalent to the qualifications aforesaid.

2. Location and layout.-(1) No solvent extraction plant shall be permitted to be constructed or extended within a distance of 30 metres from the nearest residential locality.

(2)A 1.5 metres high continuous wire fencing shall be provided around the solvent extraction plant up to a minimum distance of 15 metres from the plant.(3)No person shall be allowed to carry any matches or an open flame or fire inside the area bound by the fencing.(4)Boiler houses and other buildings where open flame processed are carried on shall be located at least 30 metres away from the solvent extraction plant.(5)If godowns and preparatory processes are at a distance of less than 30 metres from the solvent extraction plant, there shall be at least 15 metres, distance from the plant and as continuous barrier wall of non-combustible materials 1.5 metres high shall be erected at a distance of not less than 15 metres from the solvent extraction plant so that it extends to at least 30 metres of vapour travel around its ends from the plant to the possible sources of ignition.

3. Electrical installations.-(1) All electrical motors and wiring and other electrical equipment installed or housed in solvent extraction plant shall be of flame proof construction.

(2)All metal parts of the plant and building including various tanks and containers where solvents are stored or are present and all parts of electrical equipments not required to be energised shall be properly bonded together and connected to earth so as to avoid accidental rise in the electrical potential of such parts above the earth potential.

4. Restriction on smoking.-Smoking shall be strictly prohibited within 15 metres' distance from solvent extraction plant. For this purpose, 'No smoking' signs shall be permanently displayed in the area.

5. Precautions against friction.-(1) All tools and equipments including ladders, chains and other lifting tracks required to be used in solvent extraction plant shall be of non- sparking type.

(2)No machinery or equipment in solvent extraction plant shall be belt driven.(3)No person shall be allowed to enter and work in the solvent extraction plant if wearing clothes made of nylon or such other fibre that can generate static electrical charge or wearing footwear which is likely to cause sparks by friction.

6. Fire fighting apparatus.-(1) Adequate number of portable fire extinguishers suitable for use against flammable liquid fires shall be provided in the solvent extraction plant.

(2)An automatic water spray sprinkler system on a wet pipe or open head deluge system with sufficient supply of storage water, shall be provided over solvent extraction plant and throughout the building housing such plant.

7. Precautions against power failure.-Provision shall be made for automatic cutting off of steam in the event of power failure and also for emergency overhead water supply for feeding water by gravity to condensers which shall come into play automatically with the power failure.

8. Magnetic separators.-Oil cake shall be fed to the extractor by a conveyer through a hopper and a magnetic separator shall be provided to remove any pieces of iron during its transfer.

9. Venting.-(1) Tanks containing solvent shall be protected with emergency venting to relieve excessive internal pressure in the event of fire.

(2)All emergency relief vents shall terminate at least 6 metres above the ground and be so located that vapours will not re-enter the building in which solvent extraction plant is located.

10. Waste water.-Process waste water shall be passed through a flash evaporator to remove any solvent before it is discharged into a sump which should be located within the fenced area but not closer than 8 metres to the fence.

11. Ventilation.-The solvent extraction plant shall be well ventilated and if the plant is housed in a building the building shall provided with mechanical ventilation with provision for at least six air charges per hour.

12. House-keeping.-(1) Solvents shall not be stored in an area covered by solvent extraction plant except in small quantities which shall be stored in approved safety cans.

(2)Waste materials such as oil rags, other waste absorbants used to wipe off solvent and paints and oil shall be deposited in approved containers and removed from the premises at least once a day.(3)Space within the solvent extraction plant and within 15 metres from the plant shall be kept free from any combustible materials and any spills of oil or solvent shall be cleaned up immediately.

13. Examination and repairs.-(1) The solvent extraction plant shall be examined by the competent person to determine any weakness or. corrosion and wear once in every 12 months. Report of such examination shall be supplied to the Inspector with his observation as to whether or not the plant is in safe condition to work.

(2)No repairs shall be carried out to the machinery or plant except under the direct supervision of the competent person.(3)Facility shall be provided for purging the plant with inert gas or steam before opening for cleaning or repairs and before introducing solvent after repairs.

14. Operating personnel.-The operation of the plant and machinery in the solvent extraction plant shall be in the charge of such duly qualified and trained persons as are certified by the competent person to be fit for the purpose and no other person shall be allowed to operate the plant and machinery.

15. Employment of women and young persons.-No woman or young person shall be employed in the solvent extraction plant.

16. Vapour detection.-A suitable type of flame-proof and portable combustible gas indicator shall be provided and maintained in good working order and a Schedule of routine sampling of atmosphere at various locations as approved by the Chief Inspector shall be drawn out and entered in a register maintained for the purpose.

Chapter XI
Forms Prescribed Under The Rules

Form No. 1[Prescribed under Rule 3]Application for permeation to construct, extend or take into use any building as a factory.

1. Applicant's Itame.....

Applicant's calling.....Applicant's address .....

2. Full name and postal address of factory.....

3. Situation of the factory-

State.....District.....Town or village.....Nearest Railway Station or Steamer ghat.....

4. Particulars of plant to be installed.....

Signature of applicantDate.....Note.-This application 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 duplicate, drawn to scale, showing-(i)the site of the factory and immediate surrounding including adjacent buildings and other structures, roads, drains etc; and(ii)the plan, elevation and necessary cross-section 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 passageways ;(c)such other particulars as the Chief Inspector of Factories may require.Form No. 2[Prescribed under Rules 4 and 7]

1. Full name of factory with factor)' licence No., if already registered before.....

2. (a) Full postal address and situation of the factory.....

(b)Full address to which communication relating to the factory should be sent.....

3. Nature of manufacturing process/processes-

(a)carried on in the factory during the last 12 moths (in the case of the factories already in existence) .....(b)to be carried on in the factory during the next 12 months (in the case of all the factories).....

4. Names and values of principal products manufactured during the last 12 months.....

5. (i) Maximum number of workers proposed to be employed on any one day during the year.....

(ii)Maximum number of workers employed on any one day during the last 12 months.....(iii)Number of workers to be ordinarily employed in the factory.....

6. (i) Nature and total amount of power (H.P.) installed or proposed to be installed .....

(ii)Maximum amount of power (H.P.) proposed to be used.....

7. Full name and residential address of the person who shall be the manager of the factory for the purpose of the Act.....

8. Full name and residential address of the occupier-

(i)the proprietor of the factory in case of private firm/proprietary concern.....(ii)directors in case of a public limited liability Company/Firm.....(iii)where a managing agent has been appointed the name of managing agents and Directors thereof.....(iv)shareholders in case of a private company where no managing agents have been appointed.....(v)the Chief Administrative Head in case of a Government or local fund factorv.....

9. Full name and address of the owner of the premises or building (including the precincts thereof) referred to in Section 63.....

10. In the case of a factory constructed or extended after date of the commencement of the rules-

(a)reference No. and date of approval of the plans for site whether for old or new building and for construction or extension of a factory by the State Government/Chief Inspector.....(b)reference No. and date of approval of the arrangements, if any, made for the disposal of trade waste and effluents and the name of the authority granting such approval.....

11. Amount of Rs.....(Rupees)

(i)paid in.....(Treasury on.....vide challan No.....enclosed).(ii)transmitted by crossed cheque/postal Order No dated on the bank/ on the post office drawn in favour of the Chief Inspector of Factories.Signature of occupierDate.....Signature of ManagerDate.....Note.-1. This form should be completed in ink in block letters or typed.

2. If power is not used at the time of filling up this form, but is introduced, later, the fact should be communicated to the Chief Inspector immediately.

3. If any of the persons named against Item 8 is minor, the fact should be clearly stated.

4. In the case of a factory were under the provision to sub-sections (1) and (2) of Section 100, a person has been nominated as the occupier, information required in Item 8 should be supplied only in respect of that person.

5. In case of a factory where a managing agent or agents have been appointed as occupier under the Indian Companies Act, 1913 (7 of 1913) [Now the Companies Act, 1956 (1 of 1956)] information required in Item 8 should be supplied only in respect of that person or persons.

Form No. 3* * * * *Form No. 4[Prescribed under Rule 5]Registration and Licence to work a Factory

Registration No..... Fee Rs.....

Serial No.....

Licence is hereby granted to.....valid only for the premises described below for use as a factory employing not more than.....persons on any one day during the year and using motive power not exceeding.....H.P, subject to the provisions of the Factory Act, 1948, and the rules made thereunder.This licence shall remain in force till the 31st day of December, 20.

Shillong :

The 20. Chief Inspector of Factories, Assam

Description of the licensed premisesThe licensed premises shown on Plan No.....dated.....are situated in and consist of.....Renewals

Date of renewal Date of expiry Signature of licensing authority

Form No. 5[Prescribed under Rule 14]Certificate of Fitness

1. Serial No. Serial No.
   Date Date
   I hereby certify that In have personally examined(name)..... son/daughter of..... residingat..... who is desirous of being
2. Name employed in a factory, andthat his/her age, as nearly as can be ascertained form anyexamination, is..... year, and that he\she is fit for employmentin factory as an adult/child.
3. Father's name
4. Sex
5. Residence
6. Date of birth, if available and/or certified age

7.	Physical fitness	
8.	Descriptive marks	
9.	Reasons for-	His/Her descriptive marks are.....
	(1) refusal of certificate	
	or	
	(2) certificate being revoked	
	Thumb-impression	Thumb impression
	Initial of Certifying Surgeon	Certifying Surgeon

Note.-Exact details of cause of physical disability should be clearly stated.Form No. 6[Prescribed under Rule 22]Humidity RegisterDepartment.....Distinctive mark or No.....HygrometerPosition in Department.....Readings of Hygrometer

Date, Month

Dry bulb

1st2nd3rd4th5th6th7th8th9th10th11th12th13th14th15th16th17th18th19th20th21st22nd23rd24th25th26th2
(Signed).....Certified that the above entries are correct.(Signed).....Form No. 7[Prescribed under Rule 16]Record of lime washing, painting, etc.

Parts of Factory, e. g., Name of room	Parts limewashed, painted, varnished or oiled, e.g., walls, ceilings, wood work, etc.	Treatment, whether lime-washed, painted,varnished or oiled	Date on which limewashing, painting, varnishingor oiling was carried out (according to the English Calendar)	Remarks	
Date	Month	Year			
1	2	3	4	5	6 7

Signature of ManagerForm No. 8[Prescribed under Rule 56]Report of examination of pressure vessels

1. Name of occupier (of Factory).....

2. Situation and address of factory .....

3. Name, description and distinctive number of pressure vessel.....

4. Name and address of manufacturer.....

5. Nature of process in which it is used.....

6. Particulars of vessels :

(a)Date of construction(b)Thickness of walls(c)Date on which the vessel was first taken into use(d)Safe working pressure recommended by the manufacturer(The history should be briefly given, and the examiner should state whether he has seen the last/previous report)

7. Date of last hydraulic test (if any) and pressure applied.....

8. Is the vessel in open, or otherwise exposed to weather or to damp?.....

9. What parts (if any) were inaccessible ?.....

10. What examination and tests were made ? (Specify pressure if hydraulic test was carried out).....

11. Condition of vessel (State any defects materially affecting the safe working pressure or the safe working of the vessel)

External.....Internal.....

12. Are the required fittings and appliances provided in accordance with the rules for pressure vessels ?.....

13. Are all fittings and appliances properly maintained and in good condition ?.....

14. Repairs (if any) required, and period within which they should be executed and other condition which the person making the examination thinks it necessary to specify for securing safe working.....

15. Safe working pressure, calculated from dimensions and from the thickness and other data ascertained by the present examination, due allowance being made for conditions of working if unusual or exceptionally severe (State minimum thickness of walls measured during the examination).....

16. Where repairs affecting the safe working pressure are required state the working pressure-

(a)before the expiration of the period specified in item 14.....(b)after the expiration of such period if the required repairs have not been completed.....(c)after the completion of the required repairs .....I certify that on the pressure vessel described above was thoroughly cleaned and (so far as its construction permits) made accessible for through examination and for such tests as were necessary for thorough examination and that on the said date, I thoroughly examined this pressure vessel, including its fittings, and that the above is a true report of my examination.If employed by a Company or Association, give name and address.Signature.....Qualification.....Address.....Date.....Form No. 9[Prescribed under Rule 76]Register of Compensatory Holidays

Serial No.	No. in the register of workers	Name and residential address of the worker	Group or relay No.	No. and date of exempting order	Year	Weekly rest days lost due to the exempting IIorder in			
January to March	April to June	July to September	October to December						
1	2	3	4	5	6	7	8	9	10

Date of compensatory holiday give in		Lost test days carried to the next year	Remarks			
January to March		April to June	July to September	October to December		
11		12	13	14	15	16

Form No. 10[Prescribed under Rule 77]Overtime muster roll for exempted workers-Month ending 20.

No. in Register	Name and residential address of the worker	Department	Date on which overtime has been worked	Extent of overtime on each occasion	Total overtime worked or production in case ofpiece workers	Normal hours
1	2	3	4	5	6	7

Normal rate of pay	Overtime rate of pay	Normal earnings	Overtime earnings	Cash equivalent of advantages accruing throughthe concessional sale of food-grain and other articles	Total earnings	Date on which overtime payments made
8	9	10	11	12	13	14

Form No. 11[Prescribed under Rules 78 and 84]Notice of periods of work for adult and childrenName of factory.....Place.....District.....

Nature of work	Group No.	Number of workers in each group	Shift No.	Replay No.
1	2	3	4	5

Period of work

Monday to Friday

Men			Women			Children		
1st period	2nd period	3rd period	1st period	2nd period	3rd period	1st period	2nd period	3rd period
6	7	8	9	10	11	12	13	14

Date on which this notice is first exhibited 20.Signature of ManagerForm No. 12[Prescribed under Rule 79]Register of Adult Workers

Serial No.	Name and residential address of workers	Father's name	Nature of work	Letter of Group as in Form 11	No. of relay, if working in shifts	No. and date of certificate if an adolescent	Remarks	
No. of certificate and date	Token No. giving reference to the certificate							
1	2	3	4	5	6	7	8	9

Form No. 13[Prescribed under Rule 79]Register of Adult Workers for Factories exempted from Section 61 of the Act under Rule. 84

Serial No.	Name and residential address of the workers	Nature of work	Group No.	Period of work
1	2	3	4	5

Actual times of starting and stopping

for eachperiod													
Sunday	Monday	Tuesday	Wednesday	Thursaday	Friday	Saturday							
In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
6	7	8	9	10	11	12	13	14	15	16	17	18	19
1st2nd3rd4th													

Record of transfers from one group to another	Progressive total of compensatory holidays	Progressive total of lost rest days	Remarks
20	21	22	23

Note.-(1) When a worker is transferred from one group to another, the group to which he has been transferred shall be shown against his name in the Remarks column.(2)The grant of a weekly holiday may be indicated by an entry of "H" and that of a compensatory holiday by "CH" for the purposes of the Factories (Holidays) Rules.Form No. 14[Prescribed under Rule 85]Register of Child Workers

Serial No.	Name and residential address of workers	Father's name	Date of first employment	No. of certificate and its date	Token No. giving reference to certificate	Letter of Groups as in Form No. 1	No. of relay, if working in shifts	Remarks
1	2	3	4	5	6	7	8	9

Form No. 15[Prescribed under Rule 86]Register of Leave with Wages

Serial No..... Adult/Child.....

Department..... Name.....

Serial No. in the Register ofAdult/Children workers Father's name.....

Date of discharge.....

Date of entry into service..... Name of Factory.....

Date and amount of payment made in lieu of leave due

Calendar year of service	Wage period or periods during one monthimmediately preceding leave from..... to.....	Wages earned during the wage periods in Col. 2and the number of days worked during the period	Number of days, work performed	Number of days worked during the calendar year	
Number of days of lay off	Number of days of maternity leave	Number of days of leave enjoyed	Total of Cols. 4 to 7		
1	2	3	4	5	6 7 8

Leave to Credit	Whether leave in accordance with schemes underSection 9 (8) was refused	Leave enjoyed from.... to....	Balance of leave to credit	Normal rate of wages	Cash equivalent of advantage accruing throughconstitutional sale of foodgrains and other articles	Rale of wages for the leave period (Total ofCols-5 and 6)	Remarks	
Balance of leave from preceding year	Leave earned during the year mentioned in Col. 1	Total of Cols. 9 and 10						
9	10	11	12	13	14	15	16	17 18

Form No. 16[Prescribed under Rule 87]Leave BookNote.-Proforma of the Leave Book shall be the same as "Register of Leave with Wages" (Form No. 15) but shall be made out separately for each worker on a thick bound sheet.

Form No. 17[Prescribed under Rule 14]Health Register(In respect of persons employed in occupations declared to be dangerous operations under Section 87)Name of Certifying Surgeon :

(a) Mr..... From..... To.....

(b) Mr..... From..... To.....

(c) Mr..... From..... To.....

Serial No.	Works No.	Name of worker	Sex	Age (birthday)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation
1	2	3	4	5	6	7	8	9

Raw material or by-product handled	Dates of Medical Examination by CertifyingSurgeon	If suspended from work, state period ofsuspension with detailed reasons	Recertified fit to resume duty on ....(withsignature of Certifying Surgeon)	If certificate of unfitness or suspension issuedto worker	Signature with date of Certifying Surgeon
Result of Medical Examination					
10	11	12	13	14	15

Note.-(i) Column 8. Detailed summary of reasons for transfer or discharge should be stated.
"(ii)Column 11. Should be expressed as fit/unfit/suspended.Form No. 18[Prescribed under Rule 95]Notice of accidentTo

..... P.O., ...

Sir,I hereby give notice under Section 88 of the Factories Act, 1948 that an accident occurred in this factory and the following person was involved in the accident.

Sex.....

Name..... Occupation..... Age.....

1. Date and hour of accident.....

2. The hour at which the injured person started work on day of occurrence.....

3. (a) State how the accident occurred.....

(b)If caused by machinery.....(i)Give the name of the machine and part causing the accident.....(ii)State whether it was being moved by mechanical power at the time.....

4. Was the accident due to injured person's neglignece or to that of any other person's .....

5. Names of persons who saw the accident and can give important evidence.....

6. Nature and extent of injury giving medical diagnosis, if possible.....

7. Number of days the injured person is likely to be off work.....

8. Name and address of Medical Officer in attendance on injured person.....

Name of Factory.....Nature of industry.....Branch or Department where accident occurred.....

Address..... Signature.....

Note.-Any additional information which the Manager may wish to give, in order to let the Inspector have a clear idea of the circumstances surrounding the accident, should be attached to this Form.(To be filled in by the Factory Inspection Department)

Classification..... Inspector's initial.....

Responsibility..... Dated.....

Form No. 18-A[Prescribed under Rule 95 (5)]Notice of Dangerous OccurrenceDate.....ToSir,I hereby give notice under Section 88 of the Factories Act, 1948 that a dangerous occurrence occurred in the factory as detailed below :

1. Date and hour of dangerous occurrence.....

2. Full account of dangerous occurrence.....

3. Name of persons who saw the dangerous occurrence and can give important evidence.....

Name of Factory..... Nature of Industry.....

Branch or Department where the dangerous occurrence occurred.....

Address..... Signed.....

Note.-Any additional information which the Manager may wish to give in order to let the Inspector have a clear idea of the circumstances surrounding the dangerous occurrence, should be attached to this Form.Form No. 19[Prescribed under Rule 96]Notice of poisoning or diseaseTo be filled in by the ChiefInspectorNo. of case.....

	1. Name of factory.....	Remarks.....
Factory Particulars		
	2. Address of factory	
	3. Address of office or private residence of occupier.....	
	4. Nature of Industry.....	
Person affected	5. Name and Works No. of patient.....	
	6. Address of patient.....	
	7. Sex and age of patient	
	8. Precise occupation of patient	
	9. Nature of poisoning or disease from which patient issuffering.....	
	10. Has the case been reported to the Certifying Surgeon ?	
General Particulars		

Signature of Factory Manager.....Date.....Form No. 20[Prescribed under Rule 98]Abstract of the Factories Act, 1948 and the Assam Factories Rules, 1950.(To be affixed in a conspicuous and convenient place at or near the main entrance to the factory).Interpretation-"Factory" means any premises including the precincts thereof-(i)whereon ten or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on with the aid of power, or is ordinarily so carried on, or(ii)whereon twenty or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on without the aid of power, or is

ordinarily so carried on,but does not include a mine subject to the operation of the Indian Mines Act, 1923 (4 of 1923), or a railway running shed."Worker" means a person employed, directly or by through any agency, whether for wages or not, in any manufacturing process, or in cleaning any part of the machinery or premises used for a manufacturing process, in any other kind of work incidental to or connected with, the manufacturing process, or the subject of the manufacturing process."Manufacturing process" means any process for making, altering, repairing, ornamenting, finishing, packing, oiling, washing, cleaning, breaking up, demolishing, or otherwise treating or adopting any article or substance with a view to its use, sale, transport, delivery or disposal, or pumping oil, water or sewage, or generating, transforming or transmitting power, or printing by letter press, lithography, photogravure or book-binding which is carried on by way of trade or for purposes of gain, or incidental to another business so carried on, or constructing, reconstructing, repairing, refitting, finishing or breaking up ships or vessels.Working Hours, Holidays, Intervals For Rest, Etc.

1. Hours of work (Adults) [Sections 51 and 54].-No adult worker shall be required, or allowed to work in a factory for more than 48 hours in a week and for more than 9 hours in any day.

2. Relaxation of hours of work (Adults) [Section 64].-The ordinary limits of working hours of adults may be relaxed in certain special cases, e. g., workers engaged on urgent repairs ; in preparatory or complementary work which must necessarily be carried on outside the limits laid down for the general working of the factory, in work which is necessarily so intermittent that the intervals during which they do not work while on duty ordinarily amount to more than the intervals for rest ; in work which for technical reasons must be carried on continuously throughout the day in making or supplying articles of prime necessity which must be made or supplied every day, in a manufacturing process which cannot be carried on except during fixed seasons, or at times dependent on the irregular action of natural forces, in engine rooms or boiler houses or in attending to power plant or transmission machinery.

Except in the case of urgent repairs, the relaxation shall not exceed the following limits :(i)the total number of hours of work on any day shall not exceed ten ;(ii)the total number of hours of overtime work shall not exceed 50 for any one quarter;(iii)the spread over inclusive of intervals for rest shall not exceed 11 hours in any one day.In the case of any or all adult workers in any factory, the ordinary limits on working hours of adults may be relaxed for a period or periods not exceeding in the aggregate 3 months in any year, to enable the factory to deal with an exceptional pressure of work.

3. Payment for overtime [Section 59].-Where a worker work in a factory for more than 9 hours in any day or for more than 48 hours in any week he shall, in respect of overtime work, be entitled to wages at the rate of twice his ordinary rate of wages.

4. Exemption of supervisory staff [Section 64, Chapter VI of the Act].-Working hours of adult does not apply to persons holding positions of supervision or management or employed in a confidential position in a factory.

5. Weekly Holiday (Adults) [Section 52].-No adult worker shall be required or allowed to work in a factory on the first day of the week, unless he has, or will have, a holiday for a whole day on one of the three days immediately before or after the said day, and the manager of the factory has before the said day or the substituted day, whichever is earlier, delivered a notice at the office of the Inspector of his intention to require the worker to work on the said day and on the day which is to be substituted, and displayed a notice to that effect in the factory :

Provided that no substitu shall be made which will result in any worker working for more than ten days consecutively without a holiday for a whole day.Where a worker in a factory, as a result of exemption from the ordinary provision relating to weekly holidays is deprived of any of the weekly holidays, he shall be allowed, within the month in which the holidays were due to him or with in the two months immediately following that month, compensatory holidays of equal number to the holidays so lost.

6. Intervals for rest (Adults) [Sections 55 and 56].-The periods of work of adult workers in a factory each day shall be so fixed that no period shall exceed 5 hours and the no worker shall work for more than 5 hours before he has had an interval for rest of at least half an hour and that inclusive of his intervals for rest they shall not spread over more than 10-½ hours in any day or, with permission of the Chief Inspector in writing, 12 hours.

7. Prohibition of double employment [Sections 60, 71 and 99].-No child or except in certain circumstances, adult worker shall be required or allowed to work in any factory on any day on which he has already been working in any other factory.

If a child works in a factory on any day on which he has already been working in another factory, the parent or guardian of the child or the person having custody of or control over him or obtaining any

direct benefit from his wages shall be punishable with fine, which may extend to Rs. 50 unless it appears to the Court that the child so worked without the consent or connivance of such parent, guardian or person.

8. Prohibition of employment of children under Section 14 [Section 67].-No child who has not completed his fourteenth year shall be required or allowed to work in any factory.

9. Hours of work (Children) [Section 71].-No child shall be employed or permitted to work in any factory for more than 4-½ hours in any day and during the period of at least twelve consecutive hours which shall include the interval between the hours of 7 p. m. and 6 a. m. The periods to work of all children employed in a factory shall be limited to two shifts which shall not overlap or spread over more than 5 hours each and each child shall be employed in only one of the relays.

The provision relating to weekly holidays shall also apply to child workers and no exemption from this provision may be granted in respect of any child.

10. Prohibition of employment of women [Section 66].-No woman shall in any circumstances be employed in any factory for more than 9 hours in any day or between the hours of 7 p.m. and 6 a. m.

Leave With Wages

11. Leave with wages [Sections 79, 80 and 83 and Rules].-Every worker who has completed a period of 12 months' continuous Service in a factory shall be allowed during the subsequent period of 12 months leave with wages for a number of days calculated at the rate of-

(i)if an adult, one day for every twenty days of work performed by him during the previous periods of 12 months subject to a minimum of 10 days;(ii)if a child, one day for every 15 days of work performed by him during the previous period of 12 months subject to a minimum of 14 days;Provided that a period of leave shall be inclusive of any holiday which may occur during such period.For the leave allowed to him, a worker shall be paid at a rate equal to the daily average of his total full time earnings, for the days on which he actually worked during the month immediately preceding the leave exclusive of any overtime earnings, and bonus, but inclusive of dearness allowance and the cash equivalent of any advantage accruing by the sale, by the employer, of foodgrains and other articles at concessional rates for the days on which he worked during the month immediately preceding leave .Where the employment of a person who has completed a period of 4 months' continuous service in a factory is terminated before he has completed a period

of 12 month's continuous service he shall be deemed to have become entitled to leave for the number of days calculated at the rate of, if an adult one day for every 20 days of work performed by him, and if a child one day, or every 5 days of the work performed by him, and the occupier of the factory shall pay to him the amount payable in respect of the leave to which he is deemed to have become entitled.If a worker entitled to leave with wages is discharged from the factory before he has taken the entire leave to which he is entitled, or if having applied for and having not been granted such leave, he quits his employment before he has taken the leave, the occupier of the factory shall pay him the amount payable in respect of the leave not taken and such payment shall be made before the expiry of the second working day after the day on which his employment is terminated.The Manager shall maintain a Leave with Wages Register in the prescribed Form No. 15 and shall provide each worker with a book called the 'Leave Book' in the prescribed Form NO. 15. 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. If a worker loses his Leave Book, the Manager shall provide him with another copy on payment of two annas and shall complete it from his record.Health

12. Cleanliness [Section 11].-Except in cases specially exempted all inside walls and partitions, all ceilings or tops of rooms and all wall-sides and tops of passages and stair cases in a factory shall be kept white-washed or colour-washed. The white-washing or colour-washing shall be carried out at least once in every period of fourteen months. The floors of every workroom shall be cleaned at least once in every week by washing or using disinfectant, where necessary or by some other effective method.

13. Disposal of wastes and effluents [Section 12].-Effective arrangements shall be made in every factory for the disposal of wastes and effluents due to the manufacturing process carried therein.

14. Ventilation and Temperature [Section 13].-Effective and suitable provision shall be made in every factory for securing and maintaining in every workroom adequate ventilation by the circulation of fresh air and such a temperature as will secure to workers therein reasonable conditions of comfort and prevent injury to health.

15. Overcrowding [Section 16].-Unless exemption has been granted, there shall be in every workroom of a factory in existence on 1st April, 1949 at least 350 cubic feet and for a factory built after this date at least 500 cubic feet of space for every worker employed therein and for this purpose no account shall be taken of any space which is more than 14 feet above the level of the floor of the room.

16. Lighting [Section 17].-In every part of a factory where workers are working or passing, there shall be provided and maintained sufficient and suitable lighting, natural or artificial or both.

17. Drinking water [Section 18].-In every factory effective arrangements shall be made to provide and maintain at suitable points, conveniently situated for all workers employed therein, a sufficient supply of wholesome drinking water.

In every factory wherein more than 250 workers are ordinarily employed the drinking water shall, during the hot weather be cooled by ice or other effective methods, The cooled drinking water shall be supplied in every canteen, lunch room and rest room also at conveniently accessible points throughout the factory.

18. Latrines and urinals [Section 19 and Rules].-In every factory sufficient latrine and urinal accommodation of the prescribed type (separate enclosed accommodation for male and female workers) shall be provided conveniently situated and accessible to workers at all times while they are at the factory. Every latrine shall be under cover and so partitioned off as to secure privacy and shall have a proper door and fastenings. Sweepers shall be employed whose primary duty it would be to keep clean latrines, urinals and washing places.

19. Spittoons [Section 20].-In every factory there shall be provided a sufficient number of spittoons of the type prescribed in convenient places and they shall be maintained in a clean and hygienic condition. No person shall spit within the premises of a factory except in the spittoons provided for the purpose. Whoever spits in contravention of this provision shall be punishable with fine not exceeding five rupees.

Safety

20. Fencing of machinery [Section 21].-In every factory dangerous parts of machines e.g., every moving part of a prime mover and every flywheel connected to a prime mover, etc. shall be securely fenced by the safeguards of substantial construction which shall be constantly maintained and kept in position while the parts of machinery they are fencing are in motion or in use.

21. Work on or near machinery in motion [Section 22].-No woman or child shall be allowed in any factory to clean, lubricate or adjust in any part of the machinery while that part is in the motion, or to work between moving parts or between fixed and moving parts of any machinery which is in motion.

22. Employment of young persons on dangerous machineries [Section 23].-No young person shall work at any machine declared to be dangerous unless he has been fully instructed as to the dangers arising in connection with machine and the precautions to be observed and has received sufficient training in work at the machine or is under adequate supervision by a person who has a thorough knowledge and experience of the machine.

23. Casing of new machinery [Section 26].- In all machinery driven by power installed in any factory after 1st April, 1949 every set screw, bolt or key on any revolving shaft, spindle, wheel or pinion shall be so sunk, encased or otherwise effectively guarded as to prevent danger ; all spur worm and other toothed or friction gearing which does not require frequent adjustment while in motion shall be completely encased, unless it is so situated as to be as safe as it would be if it were completely encased.

Whoever sells or lets on hire or as agent of a seller or hirer, causes or procures to be sold or let on hire, for use in a factory any machinery driven by power which does not comply with these provisions, shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to five hundred rupees or with both.

24. Prohibition of employment of women and children near cotton openers [Section 27].-No woman or child shall be employed in any part of a factory for pressing cotton in which a cotton opener is at work.

25. Excessive weight [Section 34].-No woman or young person shall, unaided by another person, lift, carry or move by hand or on head, any material, article, tool or appliance exceeding the following limits :

Adult female	65 lbs.
Adolescent male	65 lbs.
Adolescent female	45 lbs.
Male child	35 lbs.
Female child	30 lbs.

26. Protection of eyes [Section 35].-Effective screens or suitable goggles shall be provided for the protection of persons employed in or in the immediate vicinity of processes which involve risk of injury to the eyes from particles or fragments thrown off in the course of the process or which involve risk of injury to the eyes by reason of exposure to excessive light.

27. Precautions in case of fire [Section38.]-Every factory shall be provided with adequate means of escape in case of fire for the persons employed therein. The doors affording exit from any room shall, unless they are of the sliding type, be constructed to open outwards. Every window, door or other exit affording a means of escape in case of fire, other than means of exit in ordinary use, shall be distinctively marked. Effective and clearly audible means of giving warning in case of fire to every person employed in the factory shall be provided. Effective measures shall be taken to ensure that wherein more than twenty workers are ordinarily employed in any place above the ground floor, or wherein explosive or highly imflammable materials are used or stored, all the workers are familiar with the means of escape in case of fire and have been adequately trained in the routine to be followed in such case.

28. Washing facilities [Section 42].-In every factory adequate and suitable facilities for washing shall be provided and maintained for the use of workers therein. Such facilities 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.

If female workers are employed separate facilities shall be provided and so enclosed or screened that the interior are not visible from any place where persons of the other sex work or pass.

29. Facilities for storing and drying clothing [Section 43 and Rules].-In the case of certain dangerous operations, e.g., leas processes, liming and tanning raw hides and skins, etc, suitable places for keeping clothing not worn during working hours and for drying of wet clothing shall be provided and maintained.

30. Facilities for sitting [Section 44].-In every factory suitable arrangements for sitting shall be provided and maintained for all workers obliged to work in a standing position in order that they may take advantage of any

opportunities for rest which may occur in the course of their work.

31. First aid and ambulance room [Section 45].-There shall, in every factory, be provided and maintained so as to be readily accessible during all working hours, first-aid boxes or cupboards equipped with the prescribed contents. All such boxes and cupnoards shall be kept in the charge of a responsible person who is trained in first-aid treatment and shall always be available during the working hours of the factory.

In every factory wherein more than 500 workers are ordinarily employed there shall be provided and maintained and ambulance room of the prescribed size and containing the prescribed equipment. The ambulance room shall be in charge of a qualified medical practitioner assisted by at least one qualified nurse and such other staff as may be prescribed.

32. Canteens [Section 46 and Rules].-In specified factories wherein more than 250 workers are ordinarily employed, a canteen or canteens shall be provided and maintained by the occupier for use of the workers. Food, drink and other items served in the canteen shall be sold on a non-profit basis and the prices charged shall be subject to the approval of a Canteen Managing Committee which shall be appointed by the Manager and 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 1,000 workers employed in the factory : provided that in no case shall there be more than 5 or less than 2 workers on the Committee. The Committee shall be consulted from time to time on to the quality and quantity of foodstuffs to be served in the canteen, the arrangements of the menus, etc.

33. Shelters, rest rooms and lunch room [Section 47].-In every factory wherein more than 150 workers are ordinarily employed, adequate and suitable shelters and rest rooms and suitable lunch room, with provision for drinking water, where workers can eat meals brought by them, shall be provided and maintained for the use of the workers.

34. Creches [Section 48 and Rules].-In every factory wherein more than 50 women workers are ordinarily employed, there shall be provided and maintained a suitable room or rooms for the use of children under the age of six years of such women. The creche shall be adequately furnished and

equipped and in particular there shall be one suitable cot or a cradle with the necessary bedding for each child, at least one chair or equivalent seating accommodation for the use of the mother while she' is feeding or attending to her child and a sufficient supply of suitable toys for older children.

There shall be in or adjoining the creche a suitable wash-room for the washing of the children and their clothing. An adequate supply of clean clothes, soap and clean towels shall be made available for each child while it is in the creche. 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 a child be allowed in the course of her daily work suitable intervals to feed the child. For children above two years of age, there shall be provided, in addition, an adequate supply of wholesome refreshment. A suitably fenced and shady open air playground shall (also be provided for the older children.

35. Welfare officers [Section 49].-In every factory wherein 500 or more workers are ordinarily employed, the occupier shall employ in the factory such number of Welfare Officers as may be prescribed.

Special Provisions

36. Dangerous operations [Section 87 and Rules].-Employment of women, adolescents and children is prohibited or restricted in certain operations, declared to be dangerous, e. g., manufacture of aerated water, electroplating, manufacture and repair of electric accumulators, glass manufacture, grinding or glazing of metals ; manufacture and treatment of lead and certain compounds of lead, generating petrol gas from petrol, sand blasting and liming and tanning of raw hides and skins.

37. Notice of accidents [Section 88 and Rules].-Where in any factory an accident occurs which causes death or which causes bodily injury by reason of which the person injured is prevented from working for a period of 48 hours or more immediately following the accident or which though not attended by personal injury or disablement, is of one of the following types :

(i)bursting of a vessel used for containing steam under pressure greater than atmospheric pressure other than plant which comes within the scope of the Indian Boilers Act;(ii)collapse or failure of crane, derrick, winch, hoist or other appliances used in raising or lowering persons or goods, or any part thereof or the overturning of a crane ;(iii)explosion or fire causing bodily injury to any persons or damage to any room or place in which persons are employed, or fire in rooms of cotton pressing factories where a cotton opener is in use ;(iv)explosion of a receiver or container used for the storage at a pressure greater than atmospheric pressure of any gas or gases (including air) or any liquid or

solid resulting from the compression of gas ;(v)collapse or subsidence of any floor, gallery, roof, bridge, tunnel, chimney, wall or building forming part of a factory or within the compound or cartilage of factory.The Manager of the factory shall forthwith send notice thereof to the Chief Inspector, if the accident is fatal or of such a serious nature that it is likely to prove fatal, notice shall also be sent to the District Magistrate or the Sub-divisional Officer and the Officer-in-charge of the nearest Police Station.

38. Notice of certain disease [Section S9 and Rules].-Where any worker in a factory contracts any of the following diseases the Manager of the factory shall send notice thereof forthwith both to the Chief Inspector and Certifying Surgeon :

Lead phosphorus, mercury, manganese, arsenic, carbon bisulphice, or benzine poisoning or poisoning by nitrous fumes or by halogens or halogen derivatives of the hydro carbons of the allopathic series, or of chrome ulceration anthrax, silicosis, toxic anaemia, toxic jaundice, primary epitheliomatous cancer of the skin or pathological manifestations due to radium or other radio-active substances or X-rays.

39. No charge for facilities and conveniences [Section 114].- No fee or charge shall be realised from any worker in respect of any arrangements or facilities to be provided or any equipments or appliances to be supplied by the occupier under the provisions of the Act.

40. Powers of Inspectors [Sections 9 and 82].-Inspectors have power to inspect factories any time and may require the production of registers, certificates, etc, prescribed under the Act and the Rules.

Any Inspector may institute proceedings on behalf of any worker to recover any sum required to be paid by an employer under the provisions relating to leave with wages, which the employer has not paid.

41. Obligations of workers [Sections 97 and 111].-No worker in a factory-

(i)shall wilfully interfere with or misuse any appliance, convenience or other thing provided in a factory for the purpose of securing the health, safety or welfare of workers therein ;(ii)shall wilfully without any reasonable cause do anything likely to endanger himself or others, and(iii)shall wilfully neglect to make use of any appliance or other thing provided in the factory for the purpose of securing the health or safety of the workers therein.If any worker employed in a factory contravenes any of these provisions of the Act or any rules or orders made thereunder imposing any duty or liability on workers he shall be punishable with fine which may extend to Rs. 20.

42. Certificates of fitness [Sections 68, 70 and 98].-No child who has completed his fourteenth year or an adolescent shall be required or allowed to work in any factory unless a certificate of fitness granted with reference to him is in the custody of the Manager of the factory and such child or adolescent carries, which he is at work, a token giving a reference to such certificate. Any fee payable for such a certificate shall be paid by the occupier and shall not be recoverable from the young person, his parent or guardian.

An adolescent who has been granted a certificate of fitness to work in a factory as an adult and who while at work in a factory carries a token giving reference to the certificate shall be deemed to be an adult for all the purposes of the provisions of the Act relating to the working hour of adults and the employment of young persons. An adolescent who has not been granted a certificate of fitness to work in a factory as an adult shall, notwithstanding his age, be deemed to be a child for all the purposes of the Act.Whoever knowingly uses or attempts to use, as a certificate of fitness granted to himself, a certificate granted to another adolescent to work in a factory as an adult, or who having procured such a certificate knowingly allows it to be used, or an attempt to use it to be made, by another person, shall be punishable with imprisonment, for a term which may extend to one month or with fine which may extend to Rs. 50 or with both.

43. Registers, notices and returns [Sections 61, 63, 72, 74, 79, 80 and 110].-A register of adult workers in the prescribed Form No. 12 and a register of child workers in the prescribed Form No. 14 shall be maintained by the Manager of every factory.

A notice of periods of work for adults and children in the prescribed Forms No. 1 and 13 shall be correctly maintained and displayed in every factory. No adult worker or child shall required or allowed to work in any factory otherwise than in accordance with their respective notices of period of work displayed in the factory.The owners, occupiers or Managers of factories shall submit the prescribed periodical returns to the Inspector regularly.Form No. 21[Prescribed under sub-rule. (1) of Rule 99]Annual ReturnsFor the year ending 31st December, 20.....

1. Registration No of Factory.....

2. Name of Factory.....

3. Name of occupier.....

4. Name of the manager.....

5. District.....

6. Full postal address of Factory.....

7. Nature of industry.....

Number of workers and particulars of employment

8. Number of days worked in the year.....

9. Number of man-days worked during the year-

(a)Men(b)Women(c)Children

10. Average number of workers employed daily (see Explanatory Note).....

(a)Adults-(i)Men(ii)Women(b)Adolescents-(i)Male(ii)Female(c)children-(i)Male(ii)Female

11. Total number of man-hours worked including overtime-

(a)Men(b)Women(c)Children

12. Average number of hours worked per week (see Explanatory Note)-

(a)Men(b)Women(c)Children

13. (a) Does the factory carry out any process or operation declared as dangerous under Section 87 (b) If so, give the following information :

Name of the dangerous process or operationscarried on (1)	Average number of persons employed daily in eachof the process or operations given in 2 (2)
(i)(ii)(iii) etc.	

Leave with Wages

14. Total number of workers employed during the year-

(a)Men(b)Women(c)Children

15. Number of workers who were entitled to annual leave with wages during the year-

(a)Men(b)Women(c)Children

16. Number of workers who were granted leave during the year-

(a)Men(b)Women(c)Children

17. (a) Number of workers who were discharged or dismissed from the service or quit employment or were superannuated or died while in service during the year.....

(b)Number of such workers in respect of whom wages in lieu of leave were paid.....Safety Officers

18. (a) Number of Safety Officers required to be appointed as per Notification under Section 40- B.....

(b)Number of Safety Officers appointed.....Ambulance Room

19. Is there an ambulance room provided in the factory as required under Section 45 ?.....

Canteen

20. (a) Is there a canteen provided in the factory as required under Section 46.....

(b)Is the canteen provided managed-(i)departmentally; or(ii)through a contractor.Shelter or rest-rooms and lunch-rooms

21. (a) Are there adequate and suitable shelter or rest-rooms provided in the factory as required under Section 17 ?.....

(b)Are there adequate and suitable lunch-rooms provided in the factory as required under Section 47 ?.....Creches

22. Is there a creche provided in the factory as required under Section 48 ?.....

23. (a) Number of Welfare Officers to be appointed as required under Section 49.....

(b)Number of Welfare Officers appointed.....

24. (a) Total number of accidents (see Explanatory Note)-

(i)Fatal.....(ii)Non-fatal.....(b)Accidents in which workers returned to work during the year to which this return relates-(i)Accidents (workers injured) occurring during the year in which injured workers returned to work during the same year-(aa)Number of accidents.....(bb)Man- days lost due to accidents.....(ii)Accidents (workers injured) occurring in the previous year in which injured workers returned to work during the year to which this return relates-(aa)Number of accidents.....(bb)Man-days lost due to accidents.....(c)Accidents (workers injured) occurring during the year in which injured workers did not return to work during the year to which this return relates-(i)Number of accidents.....(ii)Man-days lost due to accidents.....Certified that the information furnished above is, to the best of my knowledge and belief, correct.Signature of the ManagerDate.....Explanatory Notes :

1. The average number of workers employed daily should be calculated by dividing the aggregate number of attendance on working days (that is man-days worked) by a number of working days in the year.

In reckoning attendance, attendance by temporary as well as permanent employees should be counted, and all employees should be included, whether they are employed directly or under contractors. Attendance on separate shift (e.g., night and day shifts) should be counted separately. Days on which the manufacturing processes were not carried on should not be treated as working days. Partial attendance for less than half a shift on a working day should be ignored, while attendance for half a shift or more on such day should be treated as full attendance.

2. For seasonal factories, the average number of workers employed during the working season and the off-season should be given separately. Similarly the number of days worked and average number of man-hours worked per week during the working and and off-season should be given separately.

3. The average number of hours worked per week means the total actual hours worked by all workers during the year excluding overtime work divided by the product of total number of workers employed in the factory during the year and figure 52. In case the factory has not worked for the whole year, the

number of weeks during which the factory worked should be used in place of the figure 52.

4. Every person killed or injured should be treated as one separate accident. If in one occurrence six persons were injured or killed it should be counted as six accidents.

5. In Item 24 (a), the number of accidents which took place during the year should be given. In case of non-fatal accidents only those accidents which prevented workers from working for 48 hours or more should be indicated.

Form No. 21-A[Prescribed under Section 22 (1) of the Factories Act, 1948]Register to record the names of specially trained adult male workers(1)Name of workers.....(2)Serial No. as in the Register of workers under Section 62 of the Act.....(3)Father's name.....(4)Age and date of birth.....(5)Nature of work.....(6)Qualification, if any, or period of service on similar work.....(7)Remarks.....I certify that the above- mentioned worker is a properly trained male adult worker who is competent to mount on ship belts of 6 inches or less in width of either laced or flush type belt joints to lubricate or do other adjusting operations on the machinery installed in my factory while they are in motion.Date.....Signature of OccupierForm No. 22Half-yearly ReturnPeriod ending 30th June, 20...../31st December, 20.....Name of Factory.....Name of Occupier.....Name of Manager.....(1)District.....(2)Postal Address.....(3)Nature of Industry.....(4)[Average number of workers employed daily.....] [The average daily number should be calculated by dividing the aggregate number of attendances on working days by the number of working days during the half year. In reckoning attendances, attendances, by temporary as well as permanent employee should be counted, and all employees should be included, whether they are employed directly or under contractors. Attendances on separate shift (e. g., night and day shifts) should be counted separately. Days on which the factory was closed, for whatever cause, and days on which the manufacturing processes were not carried on should not be treated as working days.]

Adult:	Men
	Women
Adolescents:	Male
	Female
Children:	Male
	Female

(5)Number of days worked during the half-year ending 30th June, 20...../31st December, 20.....Signature of OccupierSignature of ManagerCertified that the information furnished above is, to the best of my knowledge and belief, correct.Signature of ManagerForm No. 25[Prescribed under Rule 102]Muster RollName of Factory..... Place..... District.....For the period ending

Sl. No.	Name of the worker	Father's Name	Nature of work	1	2	3	4	5	6	7	8	9	10	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Form No. 26[Prescribed under Rule 103]Register of Accidents and Dangerous Occurrences

Name of injured person (if any)	Date of accident or dangerous occurrence	Date of report (in Form No. 18) to Inspector	Nature of accident or dangerous occurrence	Date of return of injured person to work	Number of days the injured person was absent fromwork
1	2	3	4	5	6

Form No. 27[Prescribed under Schedule VI to Rule 94]Special certificate of fitness(In respect of persons employed in operations involving use of lead compounds)Serial No.....Date.....I hereby certify that I have personally examined Shri son of Shri.....resding at.....who is desirous of being employed as.....in the.....and that his age, as nearly as can be ascertained from my examination is.....years, and that he is, in my opinion fit for employment at work involving the use of lead compounds.His descriptive marks are :Left hand thumb-impression of person examinedCertifying Surgeon

I certify that I examined the person mentionedabove on	In extend this certificate until	Signature of certifying Surgeon	None of symptoms of lead poisoning (if any)
1	2	3	4

Form No. 31[Prescribed under sub-rule (2) of Rule 92]I hereby require that in the event of my death before resuming work the balance of my pay due for the period of leave with wages not availed of shall be paid to who is my and resides at.....Signature or left hand thumb impression of the worker[Substituted by Notification No. GLR 159/88/25, dated 10.4.1991.]