THE UTTAR PRADESH FACTORIES RULES, 1950

Contents

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CHAPTER I

PRELIMINARY

1. Short title

(a) These rules may be cited as the Uttar Pradesh Factories Rules, 1950.
(b) These rules shall extend to the whole of the Uttar Pradesh.
(c) These rules, except Rules 52, 59, 64, 65, 67, 68, 69, 70 and 109 shall come into force on April 1, 1951 and Rules 52, 59, 64, 65, 67, 68, 69, 70 and 109 shall come into force on such dates as are specified thereunder.

2. 1[Definitions

In these rules unless there is anything repugnant in the subject or context:
(a) 'Act' means the Factories Act, 1948.
(b) '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 or more, shall not be deemed to be artificial humidification.
(c) 'belt' includes any driving strap or rope.

(cc) 'Board' means the State Effluent Board constituted under sub-rule (2) of Rule 18 of these Rules.
(d) 'degree' (of temperature) means degrees on the Fahrenheit scale.
(e) 'Fume' includes gas or vapour.
(f) 'Health Officer' means the Municipal Medical Officer of Health, Nagar Swasthya Adhikari, Deputy Chief Medical Officer of Health, Additional Medical Officer of Health, Assistant Medical Officer of Health or such other Officer as may be appointed by the State Government in this behalf.
(g) 'hygrometer' means an accurate wet and dry-bulb hygrometer conforming to the prescribed condition as regards constructions and maintenance.
(h) 'inspector' means an officer appointed under Section 8 of the Act and includes "Chief Inspector" and "Deputy Chief Inspector".
(i) 'Manager' means a person nominated or appointed as such by the occupier of the factory under Section 7 for the purposes of the Act.

(j) 'maintained' means maintained in an efficient state, in efficient working order and in good repair.

(k) 'workroom' means any place occupied by workers engaged in any manufacturing process, with or without the aid of power.
(l) 'Qualified Nurse' means a person who possesses a qualification in nursing recognized under the Indian Nursing Council Act, 1947, and who is registered with the U. P. Nurses and Midwives Council, or a similar registered body of any other State in India.]

2-A. 2[Competent person

1 (1) The Chief Inspector may recognise any person as 'competent person' within such area and for such period as may be specified for the purposes of carrying out tests, examinations and inspections for such buildings, dangerous machinery, hoists and lifts, lifting machines and lifting tackles, pressure plant, confined space, ventilation system and such other process or plant and equipment as stipulated in the Act and the Rules made thereunder, located in a factory, if such a person possesses the qualifications experience and other requirements as set out in the schedule annexed to this rule:

Provided that the Chief Inspector may relax the requirements of qualifications in respect of a 'competent person', if such a person is exceptionally experienced and knowledgeable, but not the requirements in respect of the facilities at his command:
Provided further that where it is proposed to recognise a person employed under the Chief Inspector as a 'competent person' concurrence of the State Government shall be taken:
Provided also that the 'competent person' recognised under this provision shall not be above the age of 62 years and shall be physically fit for the purpose of carrying out the tests, examinations and inspections.

1 (2) The Chief Inspector may recognise an institution of repute, having persons possessing qualifications and experience as set out in the Schedule annexed to sub-rule (1) for the purpose of carrying out tests, examinations and inspections for buildings, dangerous machinery, hoists and lifts, lifting machines and lifting tackles, pressure plant, confined space, ventilation system and such other process or plant and equipment as are stipulated in the Act and the Rules made thereunder, as a competent person, within such area and for such period as may be specified.

2 (3) The Chief Inspector may on receipt of an application in the prescribed form, from a person or an institution intending to be recognised as a 'competent person for the purposes of the Act and the Rules made thereunder, register such application and within a period of sixty days of the date of receipt of application, reject the application for reasons to be recorded in writing or if satisfied about the competence and facilities available at the disposal of the applicant, recognise the applicant as a 'competent person' and issue a certificate of competency in the prescribed form.

1 (4) The Chief Inspector may, after giving an opportunity of being heard to the person recognised as a 'competent person' revoke the certificate issued to him under sub-rule (3),

2 (i) if he has reason to believe that the competent person:

3 (a) has violated any of the conditions stipulated in the certificate;

4 (b) has carried out a test, examination and inspection or has otherwise acted in a manner inconsistent with the intent or the purpose of the Act or the Rules made thereunder; or

5 (c) has omitted to act as required under the Act and the Rules made thereunder; or
6 (ii) For any other reason to be recorded in writing.

Explanation: For the purpose of this rule, an institution includes an organisation.
1 (5) The Chief Inspector may, for reasons to be recorded in writing, require recertification of lifting machines, lifting tackles, pressure plant or ventilation system, as the case may be which has been certified by a competent person outside the State.

Form of application for grant of Certificate of Competency to a person under sub-rule (3) of Rule 2-A
1 1. Name
2 2. Date of Birth
3 3. Name of the Organisation (if not self-employed)
4 4. Designation
5 5. Educational qualification (copies of testimonials to be attached)
6 6. Details of professional experience (in chronological order)

Name of the organisation	Period of service	Designation	Area of responsibility

1 7. Membership, if any, of professional bodies
2 8.
3 (i) Details of facilities (examination, testing, etc.) at his disposal.
4 (ii) Arrangements for calibrating and maintaining the accuracy of these facilities.
5 9. Purpose for which certificate of competency is sought (section or sections of the Act should be stated)

1 10. Whether the applicant has been declared a competent person under any statute (if so, the details)
2 11. Any other relevant information
3 12. Declaration by the applicant.....

I, ...hereby declare that the information furnished above is true; undertake:
(a) that in the event of any changes in the facilities at my disposal (either addition or deletion) or my leaving the aforesaid Organisation, I will promptly inform the Chief Inspector;
(b) to maintain the facilities in good working order, calibrated periodically as per manufacturer's instructions or as per National Standards; and
(c) to fulfil and abide by all the conditions stipulated in the certificate of competency and instructions issued by the Chief Inspector from time to time.

Signature of the application
Place:
Date:

Declaration by the Institution (if employed),
I, ……. certify that Shri.....whose details are furnished above, is in our employment and nominate him on behalf of the organisation for the purposes of being declared as a competent person under the Act. I also undertake that I shall:
(a) notify the Chief Inspector in case the competent person leaves our employment;
(b) provide and maintain in good order all facilities at his disposal as mentioned above;
(c) notify the Chief Inspector any change in the facilities (either addition or deletion).

Signature…….
Designation…….
Telephone No.
Official Seal.
Note: This declaration should be made by the Managing Director of the company or the partner of the firm or the proprietor, as the case may be.
Form of application of grant of Certificate of Competency to an Institution under sub-rule (2) of Rule 2-A.
1 1. Name and full address of the Organisation.....

1 2. Organisation's status (specify whether Government, Autonomous, Co-operative, Corporate or Private) …….
2 3. Purpose for which certificate of competency is sought (specify section(s) of the Act).
3 4. Whether the Organisation has been declared as a competent person under this rule or any other statute and if so, give details.
4 5. Particulars of persons employed and possessing qualifications and experience as set out in Schedule annexed to sub-rule (1) of Rule 2-A;

Serial No.	Name and designation	Qualifications	Experience	Section(s) and the rule under which certificate of competency is sought for

1 6. Details of facilities (relevant to Item 3 above) and arrangements made for their maintenance and periodic calibration.
2 7. Any other relevant information.
3 8. Declaration.

I,. hereby, on behalf of certify the details furnished above are correct to the best of my knowledge, I undertake to:
i (i) maintain the facilities in good working order, calibrated periodically as per manufacturer's instructions or as per National Standards; and
ii (ii) to fulfil and abide by all the conditions stipulated in the certificate to competency and instructions issued by the Chief Inspector from time to time.

Place:
Date:
Signature of Head of the Institution
or of the person authorised to sign on behalf
Designation……

Form of Certificate of Competency issued to a person or an Institution in pursuance of Rule 2-A made under Section 2(ca).

I, ……in exercise of the powers under Section 2(ca) of the Act and Rule made thereunder, hereby recognise.

Shri…….in the employment of……(Name of the institution) or……..(Name of organisation) as a competent person for the purpose of carrying out tests, examinations and inspections and certification of such building, dangerous machinery, lift and hoists, lifting machine and lifting tackles, pressure plants, confined space, ventilation system and such other process or plant and equipment as the case may be, used in factory located in……..under Section……. and the rule made thereunder.

This certificate is valid from……to…….

This certificate is subject to the following conditions namely:

i (i) tests, examination and inspections shall be carried out in accordance with the provision of the Act and the Rule made thereunder;

ii (ii) tests, examination and inspections shall be carried out under direct supervision of the competent person or by a person so authorised by an institution recognised to the competent person;

iii (iii) the certificate of competency issued in favour of a person shall stand cancelled if the person leaves the organisation mentioned in his application;

iv (iv) the institution recognised as a competent person shall keep the Chief Inspector informed of the names, designations and qualifications of the persons authorised by it to carry out tests, examinations and inspections.

v (v) ……..

vi (vi)

Signature of the Chief Inspector
Official Seal
Place:
Date:

Note: A Separate certificate should be issued under each relevant person. A person or an institution may be recognised as a competent person for the purposes of more than one section of the Act.

SCHEDULE

Serial No.	Section or rule under which competency is recognised	Qualifications required	Experience for the purpose	Facilities at his command
1	2	3	4	5
1 1.	Rules made under Section 6 and Section 112, Certificate of stability for buildings.	A degree in Civil or Structural Engineering or a degree equivalent thereto.	i (i) A minimum experience of 10 years in the design or construction or testing or repairs of structures; ii (ii) Knowledge of non-destructive testing, various codes of practices that are current and the effect of the vibrations and natural forces on the stability of the building.	
1 2.	Rules made under Section 21(2) 'Dangerous Machines'.	A degree in Electrical or Mechanical or Textile Engineering or a degree equivalent thereto.	i (i) A minimum experience of 7 years in: ii (a) design or operation or maintenance; or iii (b) Testing, examination and inspection of relevant machinery, their guards, safety devices and appliances. iv (ii) He shall: be conversant with safety devices and their proper functioning.	Gauges for measurement; instruments for measurement of speed and any other equipment or device to determine the safety in the use of dangerous machines.
1 3.	Section 28-'Lifts and Hoists'	A degree in Electrical or Mechanical Engineering or a degree equivalent thereto.	i (i) A minimum experience of 7 years in:	Facilities for load testing tensile testing, gauge, equipment gadgets for measurement and any other equipment, required for determining the safe working

			ii (a) design or erection or maintenance: or iii (b) inspection and test procedure of Lifts and Hoists. iv (ii) He shall be:	conditions of Hoists and Lifts.

(a) conversant with relevant codes of practices and test procedures that are current: (b) conversant with other statutory requirements covering the safety of the Hoists and Lifts.				
1 4.	Section 29- Lifting Machines, chains, rope, and lifting tackles.	A degree in Electrical or Metallurgical Engineering or a degree equivalent thereto.	i (i) A minimum experience of 7 years in: ii (a) design or erection or maintenance; or iii (b) testing, examination and inspection of lifting machines, chains, ropes and lifting tackles. iv (ii) He shall be: v (a) conversant with the relevant code of practices and test procedures that are current; vi (b) conversant with fracture mechanics and metallurgy of the material of construction. vii (c) conversant with heat treatment,	Facilities for load testing, tensile testing, heat treatment, equipment gadget for measurement, gauges and such other equipment to determine the safe working conditions of the lifting machines, chains, ropes and lifting tackles.

			stress relieving techniques as applicable to stress bearing components and parts of lifting machines and lifting tackles.	
1 5.	Section 31— `Pressure plant'	A degree in Chemical or Electrical or Metallurgical or Mechanical Engineering or a	i (i) A minimum experience of 10 years in: ii (a) design or erection or maintenance, or iii (b) Testing, examination and inspection of pressure plants. iv (ii) He shall be:	Facilities for carrying out hydraulic test, non-destructive test, gauges equipment's/ gadgets for measurement and other equipment or gauges to determine the safety in the use of pressure vessels,

degree equivalent thereto.	(a) conversant with the relevant codes of practice and test procedures relating to pressure vessels; (b) conversant with statutory requirements concerning the safety of unfired pressure vessels and equipment opera-ting under pressure; (c) Conversant with non-destructive testing techniques as are applicable to pressure vessels.

1	6.	Section 36— `precautions against dangerous fumes'.	A Master's degree in Chemistry or a degree in Chemical Engineering.	i (i) A minimum experience of 7 years in collection and analysis of environmental samples and calibration of monitoring equipment; ii (ii) He shall: iii (a) be conversant with the hazardous properties of chemicals and their permissible limit values; iv (b) be conversant with the current techniques of sampling and analysis of the environmental contaminants.	Meters, instruments and devices duly calibrated and certified for carrying out the tests and certifications of safety in working in confined spaces.
1	7.	Ventilation system as required under various Schedules framed under Section 87 such as Schedules on: i (i) Grinding or glassing of metals and processes incidental thereto ii (ii) cleaning or smoothing, roughering, etc. of	A degree Mechanical Electrical Engineering a degree equivalent thereto.	i (i) A minimum experience of 7 years in the design, fabrication, installation, testing of ventilation system and systems used for extraction and collection of dusts, fumes and vapours and other ancillary equipment: ii (ii) He shall be conversant with relevant codes of practice and test procedures that are current in respect of ventilation and extraction system for fumes.	Facilities for testing the ventilation system, instruments and gauges for testing the effectiveness of the extraction systems for dust, vapours and fumes and any other equipment needed for determining the efficiency and adequacy of these systems. He shall have the assistance of a person having a post graduate degree in Physics or diploma in Mechanical

i articles by a jet of sand, metal shot or grit or other abrasive propelled by a blast of compressed air or steam. ii (iii) Handling and processing of asbestos. iii (iv) Manufacture of Rayon by viscose process, iv (v) Foundry Operations.	Engineering with at least 7 years of experience on related facilities.

APPROVAL OF PLANS

3. [3][Approval of plans, registration of factories and grant of license

1 (1) No site shall be used for the location of a factory and no building on such site or in a factory shall be constructed, extended or taken into use as a factory or part of a factory unless previous permission in writing is obtained from the State Government or the Chief Inspector. Online Application for such permission shall be made to the Chief Inspector which shall be accompanied by the following documents.

2 (a) Form No.1 duty filled in by the applicant.

3 (b) The processes flow diagram of manufacturing process indicating safety devices fittings and mountings in each plant and machinery the various processes and their design conditions. Supplemented by a brief description of the process and safety devices in its various stages in also indicating the names of raw materials intermediates and products with their inventories in case of chemical substances, their chemical names should also be mentioned

4 (c) Plans in triplicate drawn to scale showing,

5 (i) the site of the factory and immediate surroundings including adjacent building, hospitals, educational institutions, petrol pumps, storages of inflammable and explosive materials and other structures, roads, water sources, drains etc., and location of any nearest residential area, village. town settlement with its distance from the site; and

6 (ii) the plan, elevation and necessary cross section of the various buildings indicating all relevant details relating to all natural lighting, ventilation and means of escape in case of fire. the plans shall also clearly indicate the position of the plant and machines aisles and passage ways;

7 (d) replies, to the questionnaire annexed to the form No. 1;

8 (e) letter of no objection for the location of the factory from Nagar Nigam, Nagar Panchayat, or notified Area, as the case may be;

9 (f) a letter of no objection from State Pollution Control Board;

10 (g) a letter of no objections from local Fire Office;

11 (h) license /NOC issued under the Petroleum Rules. 1976 for storage of petroleum as defined in the Petroleum Rules. 1976;

12 (i) Form No. 2 duly filled in by the applicant;
13 (j) Form No. 4 duly filled in by the applicant;
14 (k) copy of treasury challan e-challan online payment of license fee prescribed in rule 7(1).
15 (2) No manufacturing process shall be started or carried on in any building. or part of a building until a certificate of stability of the building, or part of building in Form no. 2

1 signed by a person possessing the qualifications prescribed in sub-rule (4) has been delivered online to the thief Inspector and accepted by him. So extended portion of any factory shall be used as a part of the factors any time miler the extension nor any plant or machinery shall be added m any factory nor brought into use any lectors. nor brought into use an time alter such addition until a certificate in respect of such extension or plan has been delivered to the Chief Inspector and accepted by the Chief inspector.
2 (3) The person signing the Form no shall possess the same qualifications and experience as prescribed in the Schedule to rule 2-A for this purpose.
3 (4) No person excepts in the case of a building occupied by any Government shall be authorized to sign a certificate of stability, who is in the employment of the owner or builder of the building in respect of which the certificate is given.
4 (5) If the Chief Inspector is satisfied that the plans and application for license are in consonance with the requirements of the Act, he shall, subject to such conditions as he may specify approve the plans and grant the license by digital signature on the plans and license and send online the copy of digitally signature plan, and license to the applicant and also inform the applicant cm his e-mail address and registered mobile number or he may call for such other particular y as he may require to as to enable him to accord such approval.
5 (6) The plan of a factory shall be disposed within fifteen working days of having received online to the office of Chief Inspector except those factories in which the hazardous processes ate earned out which come under the purview of section 2(cb) of the Factories Act, 1948 or rule 2(ja) of the Manufacture,Storage and Import of Hazardous Chemicals Rule 1989, whose plans shall be disposed of within thirty working days. The plans not rejected within the said time limit shall be deemed to have been approved and license shall also be deemed to have been granted and considering such plans as approved and license as granted, the site plans approval letter and the license shall be issued by Chief Inspector immediately and Chief Inspector shall also inform the applicant on his e-mail address and his registered mobile number
6 (7) The licenses of the factories whose site plans are approved within the time brut given in sub-rule (6), shall he granted on the same day. The site plan shall be approved under digital signature and the license shall be granted under digital signature by Chief Inspector who shall send online the copy of digital signed plans and license to the applicant on the same day and also inform the applicant on his e-mail address and his registered mobile number on the same day
7 (8) the occupier of a place, to which he provisions of the Act are made applicable by a notification under section 85 shall submit such application within thirty days, of the date of such notification]

4.

i (i) The internal height of a workroom shall be not less than 14 feet measured from the floor level to the lowest part of the roof, and if the roof is of corrugated iron, which is neither covered with tiles nor has an inner ceiling or lining of heat-resisting material with an air space of at least four inches between and the corrugated iron, the internal height shall be not It's` than 20 feet:

Provided that in case of the buildings having a brick or concrete roof, or (1 combination of the two, the minimum height may be 12 feet, if approved by the Chief Inspector of Factories: Provided further that case of all factories registered under Section 2(m)(i), and factories registered under Section 2(m)(i) of the Act employing up to 50 workers, the Chief inspector may, where he is satisfied that the conditions of work are reasonably good, exempt such factories from the provisions of this sub-rule.

i (ii) There shall be provided at all times for each person employed in any room of a factory where mechanical or electrical power is used at least 36 square feet of floor space exclusive of that occupied by machinery and a breathing space of at least 500 cubic feet.

ii (iii) Particulars of each of the rooms, verandahs and other enclosures of the factory shall be entered in Form 1, which shall be produced before the Inspector on demand. The provisions of sub-rule (i) of Rule 4 shall not apply to rooms intended for storage, godowns and like purposes and also rooms intended solely for office purposes, where only clerical work is done.

5.

Factories, which were not registered under the Factories Act, 1934 on March 31, 1949, or which had not applied for registration prior to April 1, 1949 shall be considered as not in existence on April 1, 1949 for the purpose of Rules 3 and 4.

REGISTRATION AND LICENSING

6. 4[xxx]

7. 5[Registration and grant of license

1 (1) The factory shall be registered and a license for a factory shall be granted by the Chief Inspector in Form 3 on payment of the fees specified in the Schedule below:

Schedule of fees payable

Quantity of H.P Installed (Max H.P)			Maximum number of persons to be employed on any day during the calendar year			
Upto 50	From 51 to 150	From 151 to 250	From 251 to 500	From 501 to 1000	From 1001 to 2500	Above 2500

Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	2	3	4	5	6	7	8

Nil	150	700	900	1700	3500	6500	10,000
Up to 50	600	1800	2800	3700	6800	12,500	14,600
Above 50 but not above 100	1200	2700	3600	5700	9000	15,000	18,000
Above 100 but not above 500	2500	5500	7200	9600	14,400	22,000	25,000
Above 500 but not above 1000	5000	7500	9400	12,000	18,000	24,500	30,000
Above 1000 but not above 2000	6000	9500	11,500	14,000	19,000	26,500	32,000
Above 2000	7000	12,500	14,500	16,500	24,000	29,000	35,000

(2) Every license granted or renewed under these rules shall remain in force for the period prescribed in sub rule (1) of rule 9 from the date on which it is granted or renewed] 1. Registration or licence number of factory
2. Name of the factory
3. Address of the factory (giving plot no. locality, street, PIN code etc.)
4. Name of the occupier
5. Name of the manager]

7A. 6[Display of sign board

Every occupier or manager shall display a painted sign board, with conspicuous letters written in white or luminous paint of any colour, at the main entrance of the factory giving the following particular's;

8. 7[Amendment of license

1 (1) A license shall get his license amended when the factory exceeds the limits specified in the license in regard to horse-power or the number of persons employed.

2 (2) The fees for the amendment of a license shall be hundred rupees plus the amount (if any), by which the fee that would have been payable if the license had originally been issued in the amended form exceeds the fee originally paid for the license.]

9. 8[Renewal of license

1 (1) The license of a factory may be renewed by the Chief Inspector for ten years at a time on payment of requisite fee specified in the Schedule to rule 7 for every year.

However, the factories which come under purview of section 2(cb) of the Factories Act, 1948, their licenses may be renewed for five years at a time on payment of requisite fee specified in

the Schedule to rule 7 for every year and the licenses for the factories which also come under the purview of rule 2(ja) of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, may be renewed for three years at a tune on payment of requisite fee specified in the Schedule to rule 7 for even Year:
Provided that if the application for renewal is not received within the time specified in sub-rule (2), the license shall be renewed only on payment of a fee twenty five per cent in excess of the fee ordinarily payable for the renewal of the license
Provided further that the State Government may. by general or special order, extend the time for presentation of application for renewal of the license
Provided further that the State Government may. by general or special order, extend the time for presentation of application for renewal of a license.
1 (2) Every application for the renewal of license shall be sent online in Form no. 4 so as to reach the office of the Chief Inspector before two months of expiry of validity period and if the application is so made, the premises shall he held to be duly licensed until such date as the Chief Inspector renews the license
2 (3) The form no. 4 duly filled in shall be sent online by the occupier every year inspite of the renewal for more than one year so that it may reach the office of the Chief Inspector on or before thirty first day of October every year.
3 (4) The application for the renewal of license of a factory shall be disposed within fifteen working days of the date of application online except those factories which are covered under section 2 (cb) of the Factories Act, 1948 (Act 63 of 1948) or rule 2(ja) of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1939 whose license renewal applications shall be disposed within thirty working days. If the application for the renewal of license is not rejected within the said time limit. the license shall be deemed to have been renewed and the Chief Inspector shall send immediately the renewed license to applicant and also inform the applicant on his e-mail address and his registered mobile number]

10. Transfer of licence

1 (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 (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 (3) A fee of five rupees shall be charged on each such application:
4 (4) The person to whom the licence is so transferred shall enjoy the same powers, and be subject to the same obligations under the licence as the original holder.

11. Procedure on death or disability of licensee

If a licensee dies to becomes insolvent or otherwise disabled, the person carrying on the business of such licensee shall not be liable lo any penalty, under the Act or these rules 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 transfer of the licence under Rule 10 in his own name for the unexpired portion of the original licence.

12. Loss of license

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

13. 9[Payment of Fees

1 (1) Every application under these rules shall he accompanied by a treasury receipt, showing that the appropriate fee have been paid into the local treasury under the head of account, "0230- shram aur sevayojan 104 – factory adhiniyam ke anthargath vasool fees"

2 (2) If an application for the grant or renewal of a license is rejected the fee paid shall be refunded.

14-A [10][Suspension of license

1 (1) If before October 31, of any year an occupier notifies his intention in writing to the Chief Inspector that during the year following, the premises, in respect of which licence is issued, will not be used for the working of the factory, the Chief Inspector may suspend the licence granted in respect of such factory.

(2) A licence suspended under sub-rule (1) may be revived on receipt of an application for renewal accompanied by the licence and Form 4 for the remaining quarters of the year on payment of the fees for such quarters and a surcharge of 25 per cent of the fees for the quarters for which the licence remained suspended. (1) Without prejudice to the general responsibility of the occupier to comply with the provisions of Section 7-A, the Chief Inspector may, from time to time issue guidelines

14-B Cancellation of licence

The State Government, or the Chief Inspector, with the approval of the State Government may after giving the licensee concerned, reasonable opportunity to show cause against the proposed action, cancel any licence, if it/he is satisfied that the licence was obtained by the licensee through fraud, by misrepresentation of facts /and on such cancellation of licence the licensee shall not be entitled to the refund of the licence fee.]

14-C

11 [The notice of occupation shall be in Form 4.]

14-D 12[Notice of change of Manager

The notice of change of manager referred to in sub-section (4) of Section 7 of the Act shall be in Form 4-A.

14-E 13[Guidelines instructions and records

and instructions regarding the general duties of the occupier, relating to health, safety and welfare of all workers while they are at work in the factory.

(2) The occupier shall maintain such records, as may be prescribed by the Chief Inspector in respect of monitoring of working environment in the factory.]

CHAPTER II

THE INSPECTION STAFF

ADDITIONAL POWERS

15. 14[Powers of Inspectors

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

2 (a) to photograph any worker, to inspect, examine, measure, copy, photograph, sketch or test, as the case may be, any building or room; and 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 or a place which the Inspector has reasons to believe is a factory and to call for explanations for irregularities found, if any;

3 (b) in the case of an Inspector, who is a duly qualified medical practitioner to carry out such medical examination as may be necessary for the purposes of his duties under the Act;

4 (c) to prosecute, conduct or defend before a court any complaint or other proceedings arising under the Act or in discharge of his duties as an Inspector:

Provided that the powers of District Magistrates and such other public officers as are appointed to the Additional Inspector shall be limited to the administration of the following provisions of the Act, namely the provisions relating to:

Health (Chapter III), Employment of young persons on dangerous machines (Section 23), Prohibition of employment of women and children near cotton openers (Section 27), Precautions against dangerous fumes (Section 36), Explosive or inflammable dust, gas, etc. (Section 37), Precautions in case of fire (Section 38); Welfare (Chapter V), Working hours of Adults (Chapter VI) (except the power of exemption under the provision to Section 62). Employment of young persons (Chapter VII), Annual leave with wages (Chapter VIII) and display of notice (Section 108).

1 (2) Identification cards

2 (a) All Inspecting Officers shall if requested, produce an authorised identification card.

3 (b) Identification cards would be issued for all Additional Inspectors of Factories belonging to Medical and Public Health Department, by the Director of Medical

and Health Services. For Officers of the Labour Department, the Identification cards would be issued by the Labour Commissioner and for the Executive Magistrates, by the District Magistrates of the Districts concerned.

15.A [15][16][Qualification for the post of an Inspector

Qualification for the post of an Inspector for the purpose of Sub-section (1) of Section 8 of the Factories Act,1948 (Act LXIII of 1948), shall be the same as prescribed for the post of Inspector of Factories, in the UTTAR PRADESH Inspector of Boilers and Factories Service Rules, 1980.]

DUTIES OF CERTIFYING SURGEONS AND AUTHORIZED MEDICAL PRACTITIONERS

16. Duties of Certifying Surgeons

1 (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 managers of factories situated within the local limits assigned to him.

2 (2) The Certifying Surgeon shall issue his certificates in Form No. 5. The foil and counterfoil shall be filled in and left thumb-impression 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 persons 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 of the Act. All counterfoils shall be kept by the Certifying Surgeon for a period of at least two years after the issue of the certificate.

3 (3) [17][The Certifying Surgeon shall, upon request by the Chief Inspector or an Inspector of Factories carry out such examination and furnish him with such report as he may indicate, for any factory or class or description of factories where:

4 (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 working prevailing therein, or

5 (b) by reason of any change in the manufacturing process carried on, or in the substance used therein, or by reasons 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

6 (c) young persons are, or are about to be employed in any work, which is likely to cause injury to their health.]

1 (4) For the purpose of the examination of persons employed in processes covered by the Dangerous Operations Rules, the Certifying Surgeon shall visit the factories within the local limits assigned to him at such intervals as are prescribed by the rules applying to any particular factory,

2 (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 which shall be kept by the factory manager and produced before the Certifying Surgeon at each visit.

3 (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.

4 (7) The manager of a factory shall afford to the. Certifying Surgeon facilities to inspect any process in which any person is employed or likely to be employed.

5 (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

EXEMPTION IN RESPECT OF PAINTING, LIME-WASHING ETC. OF WALLS AND CEILINGS ETC.

17. Cleaning of walls and ceilings

1 (1) Clause (d) of sub-section (1) of Section 11 of the Act shall not apply to the classes or descriptions of factories or parts of factories specified in the schedule to this rule provided that they are kept in a clean state by washing, sweeping, brushing, dusting, cleaning or other effective means:

Provided further that the said clause (d) shall continue to apply:
(a) 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 allowance for every person employed in the room is less than 500 cubic feet;
(b) 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;
(c) to engine house, fitting shops, lunch-rooms, canteens, shelters, creches, cloak-rooms and wash-places; and

(d) to such parts of walls, sides and tops of passages and staircases as are less than 20 feet above the floor or stair.
(2) The record of dates on which white-washing, colour-washing, varnishing, etc., are carried out shall be entered in a register maintained in Form No. 8.
(3) If it appears to the Chief Inspector that any part of a factory to which, by virtue of this rule, any of the provisions in clause (d) of sub-section (1) of Section 11 of the Act do not apply, or apply as varied by this rule, is not being kept in a clean state, he may, by a written notice, require the occupier to white-wash or colour-wash, wash, paint or varnish the same. In the event of the occupier failing to comply with such notice within two months from the date of the notice, this rule shall cease to apply to such part of a factory unless and until the Chief of Inspector otherwise determines.

SCHEDULE
PART A
1 (1) Blast Furnaces.
2 (2) Iron and Steel Mills.
3 (3) Copper Mills.
4 (4) Stone, Slate and Marble works.
5 (5) Brick and tile works in which unglazed bricks or tiles are made.
6 (6) Cement Works.
7 (7) Chemical Works, and
8 (8) Gas Works.

The following parts of factories:
(a) Rooms used only for the storage of articles.
(b) Rooms in which the walls or ceilings consist of galvanized iron, glazed bricks, glass, slate, asbestos, bamboo thatch or cement plaster.
(c) Parts in which dense steam is continuously evolved in the process.

(d) 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.
(e) Parts in which coal, coke, oxide of iron ochre, lime or stone is crushed on ground.
(f) Parts of walls, partitions, ceilings or tops of rooms which are at least 20 feet above the floor.
(g) Ceilings or tops of rooms in print works, bleach works or dye works, which the exception of finishing rooms or ware-houses.

(h) Inside walls of oil mills below a height of 5 feet from the ground floor level.
(i) Inside walls in tanneries below a height of 5 feet from the ground floor level where a wet process is carried on.

PART B

1 (1) Gun factories.
2 (2) Engineering Works.
3 (3) Electric generating or transforming stations.
4 (4) Foundries other than foundries is which brass casting is carried on.
5 (5) Factories in which sugar is referred or manufactured.
6 (6) Coach and motor-body works.
7 (7) Those parts of factories where unpainted or unvarnished wood articles are manufactured.

DISPOSAL OF TRADE WASTES AND EFFLUENTS

18.

[18][The arrangements made in accordance with sub-section (1) of Section 12 of the Act for the treatment of wastes and effluents and for their disposal shall be in accordance with the provisions contained in "The Water (Prevention and Control of Pollution) Act, 1974 (Act No. 6 of 1974) and shall be approved by the State, Board constituted by the State Government under sub-section (1) of Section 4 of the said Act (Act No. 6 of 1974) from time to time.]

VENTILATION AND TEMPERATURE

19.

1 (1) The total area of openings for ventilation in every work-room shall ordinarily be in the ratio of not less than one square foot to every fifteen square feet of floor spaces:

Provided that where it is intended to use artificial ventilation by means of forced draught fans all the time that work is carried on, for instance, by air-conditioning, the area of such openings shall be such as may be approved by the Inspector.

1 (2) In every room in a jute mill where opening of bales, batching, machine hackling, carding, preparing or any other process is carried on in which dust is generated and inhaled to an extent likely to cause injury to the health of the workers, efficient exhaust and inlet ventilators shall be provided to secure that the dust is drawn away from the workers at, or as near as is reasonably possible, to the point at which it is generated.

2 (3) In every room in cotton mill where slasher sizing is carried on, an efficient arrangement for the removal of the steam given off in the process of drying the yarn shall be fitted to the satisfaction of the Inspector. Except in cotton mills which are in

1 existence at the time these rules come into force, slasher sizing shall not be carried on in any room where any other process of manufacture is being performed.

2 (4) In every factory where injurious, poisonous and asphyxiating gases, dust or other impurities are used for or are evolved for any process carried on, all practicable measures to the satisfaction of the Inspector shall be taken to protect the workers against the inhalation of such gases, dust or other impurities.

ARTIFICIAL HUMIDIFICATION

20. When artificial humidification not allowed

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

(a) by the use of steam during any period when the dry-bulb temperature of that room exceeds 85 degrees;

(b) at any time when the wet-bulb reading 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 regarding 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

Dry-bulb	Wet-bulb	Dry-bulb	Wet-bulb
60	58.0	91	85.0
61	59.0	92	85.5
62	60.0	93	86.0
63	61.0	94	86.5
64	62.0	95	87.0
65	63.0	96	87.0
66	64.0	97	87.5
67	65.0	98	88.0
68	66.0	99	88.5
69	67.0	100	89.0
70	68.0	101	89.5
71	69.0	102	90.0
72	70.0	103	90.0

73	..	..	..	71.0	104	90.5
74	..	..	..	72.0	105	90.5
75	..	..	..	73.0	106	91.0
76	..	..	..	74.0	107	91.0
77	..	..	..	75.0	108	91.5
78	..	..	..	76.0	109	91.5
79	..	..	..	77.0	110	92.0
80	..	..	..	78.0	111	92.0
81	..	..	..	79.0	112	92.5
82	..	..	..	80.0	113	92.5
83	..	..	..	80.5	114	93.0
84	..	..	..	81.0	115	93.0
85	..	..	..	82.0	116	93.5
86	..	..	..	82.5	117	93.5
87	..	..	..	83.0	118	94.0
88	..	..	..	83.5	119	94.0
89	..	..	..	84.0	120	94.5
90	..	..	..	84.5	..	95.0

Provided, however, that this clause 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.

21. Provision of Hygrometer

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

(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 it.

(c) One additional hygrometer for taking shade readings shall be provided and maintained in a position approved by the Inspector, outside each cotton spinning and weaving factory wherein artificial humidification is adopted.

22. Exemption from maintenance of Hygrometers

When the Inspector is satisfied that the limits of humidity allowed by the schedule to Rule 20(b) 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 Form No. 6.

23. Copy of Schedule to Rule 20(b) to be affixed near every Hygrometer

A legible copy of the schedule to Rule 20(6) shall be affixed near each hygrometer.

24. Temperature to be recorded at each hygrometer

At each hygrometer maintained in accordance with Rule 21 correct wet and dry-bulb temperatures shall be recorded thrice daily during each working day by competent persons nominated by the manager. The temperature shall be taken between 7 a.m. and 9 a.m. and between 11 a.m. and 2 p.m. (but not in the rest interval) and between 4 p.m. and 5.30 p.m. In exceptional circumstances, such additional readings and between such hours, as the Inspector may specify, shall be taken. The temperatures shall be entered in a Humidity Register Form No. 7 maintained in the factory. At the end of each working day, 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.

25. Specifications of Hygrometer

1 (1) Each hygrometer shall comprise of two mercurial thermometers respectively, 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 (2) The wet-bulb shall be closely covered with a single layer of muslin, kept wet by means of a wick attached to it and dropping into the water in the reservoir. The muslin covering and the wick shall be suitable for the purpose, clean and free from size or grease.

3 (3) No part of the wet-bulb shall be within 1-1/2 inches from the dry-bulb or less than 3/4 inch from the surface of the water in the reservoir below it, on the side of it away from the dry bulb.

4 (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 (5) The bores of the stems shall be such that the position of the top of the mercury column shall be readily distinguished at a distance of two feet.

6 (6) Each thermometer shall be graduated so that accurate readings may be taken between 50 and 120 degrees.

1 (7) Every degree from 50 degrees up to 120 degrees shall be cleanly marked by horizontal lines on the stem, each fifth and tenth degrees shall be marked by longer marks, then the intermediate degrees and the temperature marked opposite each tenth degrees, i.e. 50, 60, 70, 80, 90, 100, 110 and 120.

2 (8) The markings as above shall be accurate, that is to say, at no temperature between 50 and 120 degrees shall the indicated readings be in error by more than two-tenths of a degree.

3 (9) A distinctive number shall be indelibly marked upon the thermometer.

4 (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.

26. The thermometers to be maintained in efficient order

Each thermometer shall be maintained at all times during the period of employment in efficient working order, so as to give accurate indications and in particular:
(a) The wick and the muslin covering of the wet-bulb shall be renewed once a week.
(b) The reservoir shall be filled with water which shall be completely renewed once a day. The Chief Inspector may prescribe the use of distilled water or pure rain water in any particular mill or mills in certain localities.
(c) No water shall be applied directly to the wick or covering during the period of employment.

27. 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.
28. Hygrometer not to be fixed to wall, etc., unless protected by wood
1 (1) No hygrometer shall be fixed 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 (2) No hygrometer shall be fixed at a height of more than 5 feet 6 inches from the floor to the top of thermometer stem or in the draughts from a fan window, or ventilating opening.

29. No reading to be taken within 15 minutes of renewal of water
No reading shall be taken for record on any hygrometer within 15 minutes of the renewal of water in the reservoir.
30. How to introduce steam for humidification

In any room in which steam pipes are used for the introduction of steam for the purpose of artificial humidification of the air, the following provisions shall apply:
(a) The diameter of such pipes shall not exceed two inches, and in the case of pipes installed after the date of enforcement of these rules, the diameter shall not exceed one inch.
(b) Such pipes shall be as short as is reasonably practicable.
(c) All hangers supporting such pipes shall be separated from the bare pipes by an efficient insulator not less than half an inch in thickness.
(d) No uncovered jet from such pipes shall project more than 4-½ inches beyond the outer surface of any cover.
(e) The steam pressure shall be as low as practicable and shall not exceed 70 lb. per square inch.
(f) The pipes employed for the introduction of steam into the air in a department shall be effectively covered with such non-conducting material, as may be approved by the Inspector in order to minimize the amount of heat radiated by them into the department.

LIGHTING RULES
31. Lighting
Save as provided in these Rules, Rules 31 to 35 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.

32. Lighting of interior parts

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

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

1 (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 candle at floor level.

1 (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.

33. Prevention of glare

1 (1) Where any source of artificial light in the factory is less than 16 feet above floor level, no part of the 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 fitting of the case may be, exceeds 20°.

2 (2) Any local light, that is to say artificial light designed to illuminate particularly the area or part of the area of work of a single operative or small group of operatives working near each other, shall be provided with a suitable shade of opaque material to prevent glare or with other effective means by which the light source is completely screened from the eyes of every person employed at a normal working place, or shall be so placed that no such person is exposed to glare therefrom.

34. Discretion of the Chief Inspector

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 Rule 32 is inappropriate or is not reasonably practicable, he may by order in writing (which he may at his discretion revoke) exempt the factory or part thereof, or that particular description of work-room or processes from such requirement to such an extent and subject to such conditions as he may specify.

35. Exemption from Rule 32

(a) Nothing in Rule 32 shall apply to the parts of factories specified in Part I of the schedule to these rules.
(b) Nothing in sub-rule (1) of Rule 32 shall apply to the factories or parts of factories respectively specified in Part II of the said schedule.

SCHEDULE
PART I
Parts of factories in which light sensitive photographic materials are made or used in an exposed condition.
PART II
Cement works. Works for the crushing and grinding of limestone. Gas work. Coke oven works. Electrical stations. Flour mills. Breweries. Parts of Factories in which the following are carried on:

Rooms used for the manufacture of clay pots. Concrete or artificial stone making. Conversion of iron into steel. Smelting of iron ore. Iron or steel rolling. Hot rolling or forging, tempering or annealing of metals. Glass blowing and other working in molten glass. Tar distilling. Petroleum refining and blending.
DRINKING WATER
36. 19[Quantity, supply of drinking water
1 (1) 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 drinking water shall be readily available during working hours.
2 (2) The water so provided shall be supplied:
3 (a) from a public water supply system; or
4 (b) from any other source approved in writing by the Health Officer.]

37. 20[Means of supply
If drinking water is not supplied directly from taps either connected with the public water supply system or any other water system of the factory approved by the Health Officer, it shall be kept in suitable vessels, receptacles or tanks fitted with taps and having dust proof covers placed on raised stands or platforms in shade and having suitable arrangement of drainage to carry away the split water. Such vessels or receptacles and tanks shall be kept clean and the water renewed at least once every day. All practicable measures shall be taken to ensure that water is free from contamination.]
38. 21[Cleanliness of well or reservoir
1 (1) Drinking water shall not be supplied from an open well or reservoir unless it is so constructed, situated, protected and maintained as to be free from the possibility of pollution or chemicals, or bacterial and extraneous impurities.
2 (2) Where drinking water is supplied from such well or reservoir the water in it shall be 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 the water therein is filtered and treated to the satisfaction of the Health Officer before it is supplied for consumption.

1 (3) Inspection

2 (i) The drinking water shall be inspected twice a year by the Health Officer in his capacity of Additional Inspector of Factories and where the factory does not

i draw water from Municipal supplies or from supplies supervised by the Medical staff of a Railway, or where infection is suspected, samples of water shall be collected by the Health Officer and analysed at the cost of the factory owner either in a local laboratory or at the State Health Institute, Lucknow.

ii (ii) These analyses will be paid for by the factory owner, at the following rates:

Rs.	
(a) Chemical analysis of each sample	20
(b) Bacteriological analysis of each sample	15
(c) Chemical and bacteriological analysis combined	35

Provided that factories employing less than 100 persons shall be entitled to free analysis, but if subsequently tests of water are rendered necessary because the factory owner has failed to have a satisfactory sanitary installation, these subsequent analyses shall be charged for at the rate prescribed above.

i (iii) The manager or the occupier of the factory shall, in all cases, pay freight and transportation charges of outfits for collection and dispatch of samples both ways:

Provided that if a sample does not arrive safely at the Laboratory of the State Health Institute to which it is sent, the employer concerned shall not be liable to pay the freight and transportation charges for any subsequent samples taken in lieu to the first.

i (iv) The following will be the standard of purity of drinking water supplied to factory workers:

CHEMICAL

Filtered water supply, unfiltered water supplied from the tube-wells or chemically treated water supplies—Chlorine 1.5 parts per million. Free ammonia 0.05 parts per million Albuminoid ammonia 0.1 parts per million.

BACTERIOLOGICAL

1 (1) Unchlorinated supplies from slow sand filters, protected wells springs or others sources:

2 (a) Under 100 calories per c. c. of original water on Agarmedia.

(b) Presumptive coliform count in 48 hours 37° C.

Presumptive coliform count per 100 c. c.

Class I—Excellent—less than	1
Class II—Satisfactory	1-2
Class III—Suspicious	3-10
Class IV—Unsatisfactory greater than	10

Ordinarily a probable number of 2 coliform organisms 100 per c.c. in non-chlorinated piped supplies is permitted, but throughout the year 50 per cent of the samples should fall into Class I, 80 per cent should not fall below Class II and the remainder should not fall below Class III.

1 (2) Chlorinated supplies (filtered or unfiltered from any source):

2 (a) Under 100 calories per c.c. of original water per Agarmedia at 37°C.

3 (b) Presumptive coliform count in 48 hours at 37°C. Presumptive coliform count per 100 c.c.

Explanation

Efficient chlorination should yield water free from coliform organisms in 100 c.c., i.e., such water should come into Class I. Even making allowance for sampling and other errors, the appearance of these organisms in quantities of 100 c.c., i.e. a fall to Class II should at once occasion misgivings at to the adequacy of the chlorination process.]

39. [22][Report from Government approved Laboratory

The Manager shall get the drinking water tested and examined once in twelve months from the Laboratory of Public Health Department or from a Laboratory approved by the State Government or the Central Government in this behalf as to the fitness for human consumption of the water supplied to the workers. The report received in this respect from the Laboratory shall be submitted to the Inspector as soon as it is received from the Laboratory.

Provided that whenever there is a complaint of drinking water pollution, the Inspector may by order in writing direct the manager to obtain a report from the Laboratory of Public Health Department or from a Laboratory approved in this behalf by the State Government or the Central Government as to the fitness for human consumption of the water supplied to the workers and to submit to the Inspector a copy of such report as soon as it is received from the Laboratory.

In the case of Railway factories, the Certificate/Report should be sent from the Medical Officer of the Railway]

40. 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 May 1 to September 30, in every year, be cooled by an effective method:

Provided that if ice is placed in the drinking water, the ice should 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 centre 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 50 persons up to the first 500 and one for every 500 persons thereafter.
(e) Every "water centre" shall be in charge of a suitable person, who shall distribute the water and maintain the "centre" in a clean and orderly condition. The person in charge of the centre shall be provided with clean clothes while on duty:

Provided that this clause shall not apply to any factory in which suitable mechanically operated drinking water, refrigerating units or water taps connected to a reservoir containing cool water are installed to the satisfaction of the Chief Inspector.

LATRINES AND URINALS

41. 23[The sanitary accommodation

Latrine accommodation shall be provided in every factory for the number of workers engaged at any one time on the following scale:
(a) Where the number of workers does not exceed 50—one seat.
(b) Where the number of workers exceeds 50 but does not exceed 150— 4 seats.
(c) Where the number of workers exceeds 150 but does not exceed 250—5 seats.
(d) Where the number of workers exceeds 250—one seat for every 50 or fraction of 50.

42. Latrines and 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.

43. Privacy of latrines

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

44. Signboards on latrines

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

45. Urinal accommodation

Urinal accommodation shall be provided for the use of male workers and shall not be less than two feet in length for every 50 males: provided that where the number of males employed 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; where women are employed separate urinal accommodation shall be provided for them on the same scale.

In calculating the urinal accommodation required 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.

46. 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.

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

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

48. White-washing and colour-washing of latrines and urinals

The walls, ceilings and partitions of every latrine and urinal shall be whitewashed 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 Form No. 8:

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.

49. Drains carrying waste or sullage water

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

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

50. Water taps and reservoirs near latrines

A suitable number of conveniently accessible water taps or reservoirs shall be provided near each set of latrines.

SPITTOONS

51. Spittoons

1 (1) The number and location of the spittoons to be provided shall be to the satisfaction of the Inspector.

2 (2) The spittoons shall be cleaned and disinfected at least once every day.

3 (3) The spittoons shall be of either of the following types:

4 (a) a galvanised iron container with a conical funnel-shaped cover. A layer of suitable disinfectant liquid shall always be maintained in the container; or

5 (b) a container filled with dry, clean sand and covered with a layer of bleaching powder and quick lime; or
6 (c) any other type approved by the Chief Inspector.

CHAPTER IV
SAFETY
FURTHER PRECAUTIONS IN RESPECT OF PARTICULAR MACHINERY
52. Safety precautions
1 (1) Without prejudice to the provision of Section 21(1) of the Factories Act, 1.948, in regard to the fencing of machinery, the following additional provisions specified in the schedules annexed hereto shall apply to machinery noted in each schedule, the provisions of this rule shall come into force from July 1, 1951, in the case of factories registered before April 1, 1949.
2 (2) The fences and other devices for protection shall be so constructed and designed as to render it impossible for any person to pass between them and a moving part and also in such manner as to give protection to a person oiling, cleaning or otherwise attending to machinery and to all persons, who may be in the neighbourhood of moving part while it is in motion.
3 (3) In every fence the spaces between the fence framing shall be completely and securely fitted in with panels of sheet metal, expanded metal or other stout and durable material, unless the frame members of the fence are, in the opinion of the Inspector, sufficiently close together to serve the same purpose. When panels are fitted, the boards shall be ^fitted to all fences, which stand upon the ground or in a wall-way, scaffold or platform.
4 (4) In case where a fixed fence cannot be used to give protection from flying chips or the like, the manager shall provide portable screens where these can be effectively used

1 ; and where screens are not adequate protection, he shall provide goggles for each worker within range.
2 (5) The guards and other appliances required by the rules shall be:
3 (a) maintained in an efficient state,
4 (b) constantly kept in position while the machinery is in motion, and
5 (c) so adjusted as to enable the work to be done without unnecessary risk.
6 (6) If the driving machinery is situated in a room separated from the driven machinery room by a high wall, an Inspection door 4'x4'shall be provided in the wall and further a bell arrangement shall be provided under the control of the person attending the driven machinery.

SCHEDULE I
COTTON TEXTILES
1 1. Cotton openers, scutchers, combined openers and scutchers, and lap machines, hard waste breakers, etc.
2 (a) All cotton openers, scutchers, combined openers and scutchers, scutcher and lap machines, hard waste breakers and similar machines shall be driven by separate motors or from countershafts provided with fast and loose pulleys and efficient belt shifting devices.
3 (b) In all openers, combined openers and scutcher, scutchers, scutcher-lap-machines, hard waste breakers and similar machines, the beater covers and doors which give access to

any dangerous part of the machines shall be fitted with effective inter-locking arrangements which shall prevent,

4 (i) the covers and doors being opened while the machine is in motion; and

5 (ii) the machine being re-started until the covers and doors are closed:

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

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

ii 2. Combined openers and scutcher, scutchers, scutcher-lap, silver-lap machine, derby doublers and ribbon machines,

(a) 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 rollers as long as the weighted rank is dowing; or

(b) The guard or cover shall be so locked that it cannot be raised until the machine is stopped and the machine cannot be started until the guard or cover is closed.

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

4. Speed frames: Headstocks shall be fitted with automatic locking arrangements which shall prevent the doors giving access to jack box wheels being opened while the machinery is in motion and shall render it impossible to restart the machine until the doors have been closed.

5. Self-acting mules: the drive shall be from countershafts, which shall be provided with fast and loose pulleys and efficient belt shifting devices.

6. Calender 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 of bowls are in motion, as to prevent access to the point of contact of the rollers or bowls.

SCHEDULE II

GINNING FACTORIES

Line shafts

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

(b) The feed mouth of the opener shall be fitted with a traverser or a grid guard extending 4 feet over the lattice conveyer so as to render it impossible for the operative to be within reach of the beaters when feeding on to the lattice.

SCHEDULE III
WOOD WORKING MACHINER

1 1. Definitions: For the purposes of this schedule,

2 (a) Wood-working machine means a circular saw, band saw, planning machine, chain mortising machine or vertical spindle moulding machine operating on wood or cork.

(b) Circular saw means a 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, die cutting portion of which runs in a vertical direction but does not include a long saw or band re-sawing machine.

(d) Planning machine means a machine for overhead planning 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 (a) No person shall be employed at a woodworking 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.

(b) A person who is being trained to work a wood working machine shall be fully and carefully instructed as to the dangers of the machine and the precautions to be observed to secure safe working of the machine.

6. Circular 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 the radius of the largest saw used on the bench.

(ii) The knife shall be maintained as close as practicable to the saw having regard to the nature of the work being done at the time, and at the level of the bench table the distance between the front edge of the knife and the teeth of the saw shall not exceed 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 24 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 plates 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 at least l/10th inch, or if beaded be of a thickness of at least 1/20th inch.
7. Push sticks: A push stick or other suitable appliance shall be provided for use at every circular saw and at every vertical spindle moulding machine to enable the work to be done without unnecessary risk.
8. Band 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. Planning machine
(a) A planning machine (other than a planning machine, which is mechanically fed) shall not be used for overhead planning unless it is fitted with a cylindrical cutter block.
(b) Every planning machine used for overhead planning shall be provided with "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.
(c) The feed roller of every planning machine used for thicknessing except the combined machine for overhead planning and thicknessing shall be provided with an efficient guard.
10. Vertical spindle moulding machine (a) 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.
(b) 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.

1 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.
2 12. Adjustment and maintenance of guards: The guards and other appliances required under this schedule shall be:
3 (a) maintained in an efficient state;
4 (b) constantly kept in position while the machinery is in motion;
5 (c) so adjusted as to enable the work to be done without unnecessary risk.
6 13. Exceptions: Paragraphs 6, 8, 9 and 10 shall not apply to any woodworking machine in respect of which it can be proved that other safeguards are provided, maintained and used which rendered the machine as safe as it would be if guarded in the manner prescribed in this schedule.

SCHEDULE IV

RUBBER MILLS

1 1. Installation of machines: Mills for breaking down, cracking, grating, mixing, refining and warming rubber or rubber compounds shall be so installed that the top of the front roll is not less than forty-six inches above the floor or working level:

Provided that in existing installations 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.

1 2. Safety devices

2 (a) Rubber mills shall be equipped with,

3 (i) 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;

4 (ii) 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 to reverse the rolls.

5 (b) Safe-trip rods or tight wire cables on 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 or working level.

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

24[SCHEDULE V

CENTRIFUGAL MACHINES

1 1. Definition: "Centrifugal Machines" include centrifugal extractors, separators and driers.

2. Every party of centrifugal machine shall be, (a) of good design and construction and of adequate strength;

(b) properly maintained; and

(c) examined thoroughly by a competent person at regular intervals.

3. Interlocking guard for drum or basket

(1) The cage housing the rotating drum or basket of every centrifugal machine shall be provided with a strong lid. The design and construction of the cage as well as the lid should be such that no access is possible to the drum or basket when the lid is closed.

(2) Every centrifugal machine shall be provided with an efficient inter-locking device that will effectively prevent the lid referred to in sub-paragraph (1) from being opened while the drum or basket is in motion and prevent the drum or basket being set in motion while the lid is in the open position.

4. Braking arrangement: Every centrifugal machine shall be provided with an effective braking arrangement capable of bringing the drum or basket to rest within as short a period of time as reasonably practicable after the power is cut off.
5. Operating speed: No centrifugal machine shall be operated at a speed operated at a speed in excess of the manufacturers rating which shall be legibly stamped at easily visible places both on the inside of the basket and on the outside of the machine casing.
6. Exceptions: Sub-paragraph (2) of paragraph 3, paragraphs 4 and 5 shall not apply in case of top lung machine or similar machines used in the sugar manufacturing industry.

SCHEDULE VI
POWER PRESS

1 1. Application: The Schedule shall apply to all types of power presses including press brakes, except when used for working hot metal.

2 2. Definition: For the purpose of this Schedule,

3 (a) "Approved" means approved by the Chief Inspector;

4 (b) "fixed fencing" means fencing provided for the tools of a power press being fencing which has no moving part associated with or dependent upon the

mechanism of a power press and includes that part of a closed tool which acts as a guard;
(c) "power press" means a machine used in metal or other industries for moulding, pressing, blanking, raising, drawing and similar purposes;
(d) "safety device" means the fencing and any other safeguard provided for the tools of a power press.
3. Starting and stopping mechanism

The starting and stopping meth ism shall be provided with a safety stop so as to prevent over running of the press or descent of the ram during tool setting, etc.

1 4. Protection of tool and die

2 (1) Each press shall be provided with a fixed guard with a slip plate on the underside enclosing the front and all sides of the tool.

3 (2) Each die shall be provided with a fixed guard surrounding its front and sides, and extending to the back in the form of a tunnel through which the pressed article falls to the rear of the press.

4 (3) The design construction and mutual position of the guards referred to in sub-paragraph (1) and (2) shall be such as to preclude the possibility the worker's hand or fingers reaching the danger zone.

5 (4) The machine shall be fed through a small aperture at the bottom of the die guard, but a wider aperture may be permitted for second or subsequent operations if feeding is done through a chute.

6 (5) Notwithstanding anything contained in sub-paragraphs (1) and (2) an automatic or an interlocked guard may be used in place of a fixed guard, but where such guards are used they shall be maintained in an efficient working condition and if any guard develops a defect, the power press shall not be operated unless the defect of the guard is removed.

7 5. Appointment of persons to prepare power presses for use

8 (1) Except as provided in sub-paragraph (4) of paragraph 4 of this Schedule no persons shall set, reset, adjust or try out the tools on a power press or install or adjust any safety device thereon, being installation or adjustment preparatory to production of die proving, or carry out an inspection and test of any safety device thereon required by paragraph 8 unless, he

9 (a) has attained the age of eighteen years;

10 (b) has been trained in accordance with sub-paragraph (2); and

11 (c) has been appointed by the occupier of the factory to carry out those duties in respect of the class or description of power press or the class or description of safety device to which the power press or the safety device,

as the case may be, belongs; and the name of every such person shall be entered in a register in Form 25.

(2) The training shall include suitable and sufficient practical instruction in the matters in relation to each type of power press and safety devices in respect of which it is proposed to appoint the person being trained.

6. Examination and testing of power presses and safety devices

(1) No power press or safety device shall be taken into use in any factory for the first time in that factory, or in case of a safety device for the first time on any power press, unless it has been thoroughly examined and tested, in the case of power press, after installation in the factory or, in the case of a safety device, when in position on the power press in connection with which it is to be used,

(2) No power press shall be used unless it has been thoroughly examined and tested by a competent person within immediately preceding period of twelve months.

(3) No power press shall be used unless every safety device (other than fixed fencing) thereon has, within the immediately preceding period of six months when in position on that power press, been thoroughly examined and tested by a competent person.

(4) The competent person carrying out an examination and test under the foregoing provisions shall make a report of the examination and test containing the following particulars and every such report shall be kept readily available for inspection,

(a) name of the occupier of the factory;

(b) address of the factory;

(c) identification number or mark sufficient to identify the o press or the safety device;

(d) date on which the power press or the safety device was first taken into use in the factory;

(e) the date of each periodical thorough examination carried out as per requirements of sub-paragraph (2) above;

(f) Particulars, of any defects effecting the safety working of power press or the safety device found at any such thorough examinations and steps taken to remedy such defects.

7. Defects disclosed during a thorough examination and tests

(1) Where any defect is disclosed in any power press or in any safety device by any examination and test under paragraph 6 and in the opinion of the competent person carrying out the examination and test, either

(a) the said defect is a cause of danger to workers and in consequence the power press of safety device, as the case may be ought not to be used until the said defect has been remedied; or
(b) the said defect may become a cause of danger to workers and in consequence the power press or safety device as the case may be ought not to be used after the expiration of a specified period unless the said defect has been remedied.

Such defect shall, as soon as possible after the completion of the examination and test, be notified in writing by the competent person to the occupier of the factory and, in the case of a defect falling within clause (b) of this sub-paragraph, such notification shall include the period within which, in the opinion of the competent person, the defect ought to be remedied.
1 (2) In every case where notification has been given under this paragraph, a copy of the report made under sub-paragraph (4) of paragraph 6 shall be sent by the competent person to the inspector of the area within fourteen days of the completion of the examination and test.
2 (3) Where any such defect is notified to the occupier in accordance with the foregoing provisions of this paragraph the power press or safety device, as the case may be having the said defect shall not be used:
3 (a) In the case of a defect falling within clause (a) of sub paragraph (1), until the said defect has been remedied; and
4 (b) in the case of a defect falling within clause (b) of sub-paragraph (1), after the expiration of the period unless the said defect has been remedied.
5 (4) As soon as is practicable after any defect of which notification has been given under sub-paragraph (1) has been remedied, a record shall be made by or on behalf of the Occupier stating the measures by which and the date on which the defect was remedied.
6 8. Inspection and test of safety device
7 (1) No power press shall be used after the setting, resetting or adjustment of the tools thereon unless a person appointed or authorised for the purpose under paragraph 5 has inspected and tested every safety device thereon while it is in position of the said power press:

Provided that an inspection, test and certificate as aforesaid shall not be required where any adjustment of the tools has not caused or resulted in any alteration to or disturbance of any safety device on the power press and if, after the adjustment of the tools the safety device remain, in the opinion of such a person as aforesaid, in efficient working order.

1 (2) Every power press and every safety device thereon while it is in position on the said power press shall be inspected and tested by a trained person every day.
2 9. Defects disclosed during an inspection and test
3 (1) Where it appears to any person as a result of any inspection and test carried out by him under paragraph 8 that any necessary safety device is not in position or is not properly in position on a power press or that any safety device which is in position on a power press is not in his opinion suitable he shall notify it to the manager forthwith.
4 (2) Except as provided in sub-paragraph (3) where any defect is disclosed in a safety device by any inspection and test under paragraph 8, the person carrying out the inspection and test shall notify it to the manager forthwith.

5 (3) Where any defect in a safety device is the subject of a notification in writing under paragraph 7, by virtue of which the use of the safety device may be continued during a specified period without the said defect having been remedied, the requirement in sub-paragraph (2) of this paragraph shall not apply to the said defect until the said period has expired.

6 10. Identification of power presses and safety device: For the purpose of identification every power press and every safety device provided for the same shall be distinctively and plainly marked.

7 11. Training and instructions to operators: The operators shall be trained and instructed in the safe method of work before starting work on any power press.

8 12. Exemptions

9 (1) If in respect of any factory, the Chief Inspector is satisfied that owing to the circumstances or inadequacy of the processes or for any other reason all or any of the provisions of this Schedule are not necessary for the protection of the workers employed on any power press or any class or description of power press or in the factory, the Chief Inspector may by a certificate in writing (which he may in his discretion revoke at any time) exempt such factory from all or any of the provisions subject to such conditions, if any, as he may specify therein.

10 (2) Where such exemption is granted, a legible copy of the certificate, showing the conditions, if any, subject to which it has been granted, shall be kept posted in the factory in a position where it may be conveniently read by the persons employed.

SCHEDULE VII

SHEARS SLITTERS AND GUILLOTINE MACHINES

1 1. Definition: For the purpose of the Schedule,

(a) 'guillotine' means a machine ordinarily equipped with straight, bevel-edged blade operating vertically against a stationary resisting edge and used for cutting metallic or non-metallic substances;

(b) 'shears' or "shearing machine" means a machine ordinarily equipped with straight, bevel-edged blades operating vertically against resisting edges or with rotary, overlapping cutting wheels, and used for shearing metals or non-metallic substances;

(c) "slitter" or "slitting machine" means a machine ordinarily equipped with circular disc-type knives, and used for trimming or cutting metal or non-metallic substances or for slitting them into narrow strips; for the purpose of the Schedule, this term includes bread or other food slices equipped with rotary knives or cutting discs.

2. Guillotine and Shears

(1) Where practicable, a barrier metal guard of adequate strength shall be provided at the front of the knife, fastened to the machine frame and shall be so fixed as would prevent any part of the operator's body to reach the descending blade from above, below or through the barrier guard or from the sides:

Provided that in case of machines used in the paper printing and allied industries, where a fixed barrier metal guard is not suitable on account of the height and volume of the material being

fed, there shall be provided suitable starting devices which require simultaneous action of both the hands of the operator or an automatic device which will remove both the hands of the operator from the danger zone at every descent of the blade.

1 (2) At the back end of such machine, an inclined guard shall be provided over which the slit pieces would slide and be collected at a safe distance in a manner as would prevent a person at the back from reaching the descending blade.

(3) Power-driven guillotine cutters, except continuous feed trimmers, shall be equipped with (a) starting devices which require the simultaneous action of both hands to start the cutting motion and of at least one hand oil control during the complete stroke of the knife; or

(b) an automatic guard which will remove the hands of the operators from danger zone at every descent of the blade, used in conjunction with one-hand starting devices which required two distinct movements of the device to start the cutting motion and so designed as to return positively to the non-starting position after each complete cycle of the knife,

(4) Where two or more workers are employed at the same time on the same power-driven guillotine cutter equipped with two-hand control, the device shall be so arranged that each worker shall be required to use both hands

1 simultaneously on the safety trip to start the cutting motion and at least one hand on a control to complete the cut.

2 (5) Power-driven guillotine cutters, other than continuous trimmer, shall be provided in addition to the brake or other stopping mechanism, with an emergency device which will prevent the machine from operating in the event of failure of the brake when the starting mechanism is in the non-starting position.

3 3. Slitting Machines

4 (1) Circular disc-type knives on machines for cutting metal and leather, paper, rubber, textiles or other non-metallic substances shall, if within reach of operators standing on the floor or working level be provided with guards enclosing the knife edges at all times as near as practicable to the surface of the material and which may either:

5 (a) automatically adjust themselves to the thickness of the material; or

6 (b) Be fixed or manually adjusted so that the space between the bottom of the guard and the material will not exceed 6 mm (1 /2 inch) at any time.

7 (2) Portions of blades underneath the tables or benches of slitting machines shall be covered by guards.

8 4. Index cutters and Vertical Paper Slotters: Index cutters and other machines for cutting strips from the ends of books and for similar operations, shall be provided with fixed guards, so arranged that the fingers of the operator cannot come between the blades and the table.

9 5. Corner Cutters: Corner cutters, used in the manufacture of paper boxes, shall be equipped with

10 (a) suitable guard, fastened to the machines in front of the knives and provided with slots or perforations to afford visibility of the operations; or

11 (b) other guards equally efficient for the protection of the fingers of the workers.

12 6. Band Knives: Band wheels on band knives and all portions of the blade except the working side between the sliding guide and the table on vertical machines, or between the

wheel guards on horizontal machines, shall be completely enclosed with finger guards of sheet metal not less than 1 mm (0.04 inch) in thickness or of other material of equal strength.]

52-A 25[Building and structure

No building wall, chimney, bridge tunnel, road, gallery, stairway, ramp, floor platform staging or other structure, whether of a permanent or temporary character, shall be constructed, situated or maintained in any factory in such manner as to cause risk of bodily injury.

52-B Machinery and plant

(a) No machinery or shaft in motion shall be cleaned by waste rags or similar material held in hand.

(b) Every shafting ladder shall be fitted with either hooks or some effective non-skid device and shall be free from cracks, broken rungs and other defects. When necessary to prevent slipping another worker shall be provided to hold the bottom of the ladder.

(c) No person engaged in oiling or adjusting belts or in any work whatsoever "within reach" of transmission machinery or any other machinery which the Inspector considers dangerous, shall be allowed to wear loosely fitting clothes.

(d) The occupier shall be responsible for the supply of tight fitting clothing without cost to the workers mentioned in Rule (c) all the time they are at work.

(e) Notices or posters in Hindi for the prevention of accidents shall be displayed at conspicuous places in every room of the factory in which machinery is in use.

(f) The manager of every factory shall cause the contents of the notices or posters to be explained to each worker in the language understood by him on his first engagement and as often as there is a change in the work performed by him.

(g) 26[The register as required in sub-section (1) of Section 22 of the Act shall be in Form No. 25.

No machinery or plant equipment shall be constructed, situated, operated or maintained in any factory in such a manner as to cause risk of bodily injury.

52-C Method of work

No process of work shall be carried in any factory in such a manner as to cause risk of bodily injury.

52-D Stacking or storing of Materials etc.

No materials or equipment shall be stacked or stored in such a manner as to cause risk of bodily injury.]

PRECAUTIONS FOR PERSONS ATTENDING TO MACHINERY

53.

Note: All garments other than those given below shall be considered loosely fitting cloths for the purpose this rule.

Boiler-suits i.e., combination of shirts and trousers, tight fitting shirt worn inside shorts, loin-cloth, vest (banyan), sweater, cap, turban without hanging ends.

DANGEROUS MACHINES

54. Employment of young persons on dangerous machines

The following machines are hereby prescribed as of such a 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: milting machines used in the metal trades; Guillotine machine; Circular Saw: Platen Printing machines.

55. Rules under Section 28

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

2 (i) Date of examination.

3 (ii) Number of hoists and lifts if more than one.

4 (iii) Details of examinations made.

5 (iv) Result of examination.

6 (v) Signature of examiner.

7 (vi) Designation and qualifications of the examiner.

8 (2) Exemption of certain hoists and lifts: In respect of any class or description of hoists or lift specified in the first column of the Schedule, the requirements of Section 28 specified in the second column of said schedule and set opposite to that class or description of hoist or lift shall not apply:

SCHEDULE

Class or description of hoist or lift requirements which shall not apply

(a) Hoist or lifts mainly used for raising materials for charging blast furnaces or lime-kilns.	Sub-section 1(b) in so far as it requires a gate at the bottom landing; sub-section 1(e).
(b) Hoists not connected with mechanical power and which are not used for carrying persons.	Sub-section 1(b) in so far as it requires the hoist way or liftway enclosure to be so constructed as to prevent any person or thing from being trapped between any part of the hoist or lift and any fixed structure or moving part; sub-section (1)(e).

PRESSURE PLANT TESTING, EXAMINATION AND OTHER SAFETY MEASURES IN RELATION THERETO

55-A

1 (1) No lifting machine, and no chain, rope or lifting tackle, except fibre rope or a fibre rope sling, shall be taken into use in any factory unless it has been tested and all parts have been thoroughly examined by a competent person and certificate to that effect, specifying the safe working load or loads, has been obtained from that person and is kept available for inspection.

1 (2)
2 (a) Every jib-crane, which is so constructed that die safe working load varies with raising or lowering of the jib, shall have attached thereto either an automatic indicator of safe working loads or an automatic jib-angle indicator and a table indicating the safe working loads at the corresponding inclinations of the jib, or corresponding radii of the load.
3 (b) A table showing the safe working loads of every kind and size of chain, rope or lifting tackle in use, and, in the case of a multiple sling, die safe working loads at different angles of-the legs, shall be posted in the storeroom or place where, or in which, the chains, ropes or lifting tackles are kept, and in prominent positions on the premises; and no rope, chain or lifting tackle, not shown in the table, shall be used. However, the foregoing provisions of this paragraph shall not apply in respect of such lifting tackle in the safe working load thereof, or in the case of a multiple sling, safe working load at different angles of the legs, is plainly marked upon it.
4 (3) The register to be maintained under clause (a)(iii) of sub-section (1) of Section 29 of the Act shall be:
5 (i) Name of occupier of the factory.
6 (ii) Address of the factory.
7 (iii) Distinguishing number or mark, if any, and description sufficient to identify the lifting machine, chain, rope, multiple sling or die lifting tackle.
8 (iv) Date when the lifting machine, chain, rope, or multiple sling or lifting tackle was first brought into use in the factory.
9 (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 issued the certificate.
10 (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 name and designation of the person by whom it was carried out.
11 (vii) Date of annealing or other heat treatment of die chain and other lifting tackle made under sub-rule (5) and name and designation of the person by whom it was carried out.
12 (viii) Particulars of any defects affecting the sate 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.
1 (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

1 an even running surface and every such rail or track shall be properly laid, adequately supported and properly maintained.
2 (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 Chief Inspector of Factories be effectively annealed under the supervision of a competent person at the following intervals:
3 (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.

4 (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 Inspectors approval, be annealed only when necessary. Particulars of such annealing shall be entered in a register prescribed under sub-rule (3).

1 (6) Nothing in the foregoing sub-rule (5) shall apply to the following classes of chains and lifting tackles:

2 (i) Chains made of malleable cast iron.

3 (ii) Plate link chains.

4 (iii) Chains, rings, hooks, shackles and swivels made of steel or of any non-ferrous metal.

5 (iv) Pitched chains, working on sprocket or pocketed wheels.

6 (v) Rings, hooks, shackles and swivels permanently attached to pitched chains, pulley blocks or weighing machines.

7 (vi) Hocks and swivels having screw threaded [17]parts or ball bearing or other case hardened parts.

8 (vii) Socket shackles secured to wire ropes by white metal capping.

9 (viii) Bordeaux connections.

10 (ix) Any chain or lifting tackle which has been subjected to the heat treatment known as "normalizing" instead of annealing.

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

1 (7) Every lifting machine, chain, rope and lifting tackle, except a fibre rope, or fibre rope sling, which has 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).

1 (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. 27[Pressure vessels or plant

1 (1) Interpretation: In this rule:

2 (a) "design pressure" means the maximum pressure that a pressure vessel or plant is designed to withstand safety when operating normally;

3 (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;

4 (c) "plant" means a system of piping that is connected to a pressure vessel and is used to contain a gas, vapour or liquid under pressure greater than the atmospheric pressure, and includes the pressure vessel;

5 (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 pipe line fitting or "other equipment attached thereto or used in connection therewith; and
6 (e) "competent person" means a person who is, in the opinion of the Chief Inspector, capable by virtue of his qualifications, training and experience, of conducting a thorough examination and pressure tests, as required, on a pressure vessel plant, and of making full report on its condition.
7 (2) Exceptions: Nothing in this rule shall apply to,
8 (a) vessels having internal diameter not exceeding 150 millimeters and a capacity not exceeding 142 litres;
9 (b) vessels made of ferrous materials having an internal operating pressure not exceeding 1 kilogram per square centimetre;
10 (c) steam boilers, steam and feed-pipes and their fittings coining under the purview of Indian Boilers Act, 1923;
11 (d) 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, 1940 framed under the Indian Explosives Act, 1884;
12 (e) vessels in which internal pressure is due solely to the static head of liquid;
13 (f) 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;
14 (g) vessels for nuclear energy application;

(h) refrigeration plant having a capacity of 3 tons or less of refrigeration in 24 hours; and
(i) working cylinders of steam engines or prime movers, feed pumps and steam traps; turbine casings; compressor cylinders ; steam separators or dryers ; steam strainers; steam de-super-heaters ; oil separators; air receivers for fire sprinkler installations ; air receiver of monotype machines provided the maximum working pressure of the air receiver does not exceed 1.33 kilograms per square centimetre 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 material adequate strength and free from any patent defects; and
(c) shall be properly maintained in a safe condition:

Provided that the pressure vessels or plant in respect of the design and construction of which there is an Indian standard or a standard of the country of manufacture or 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 not 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 guage with 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 guage 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 or 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 pipe line immediately adjacent to the pressure vessel and where there is a range of two or more similar pressure vessels served by the same pressure load only one set of such mountings need be fitted on the pressure load immediately adjacent to the range of pressure vessels, provided they cannot be isolated.
1 (5) Pressure reducing devices
2 (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 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.
3 (b) To further protect the pressure vessel in the event of failure of the reducing valve device, at least one safety valve having capacity sufficient to release all the steam, 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 source of supply, shall be fitted on the low-pressure side of 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 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 pressure which shall be 1.5 times the maximum permissible working pressure:

(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 in 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 maximum permissible working pressure as shown in the certificate.

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 not be less than the maximum permissible working pressure and shall take into account the possible fluctuations of pressure during actual operation.
1 (7) In-service test and examinations
2 (a) Every pressure vessel or plant in service shall be thoroughly examined by a competent person:
3 (i) externally, once in every period of six months;
4 (ii) internally, once in every period of twelve month:

Provided that if by reason of the construction of a pressure vessel or plant, a thorough internal examination is not possible, this examination may be replaced by a 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
i (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) 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) 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 nondestructive test like ultrasonic test for metal thickness or other defects of all parts of failure of which might lead to eventual rupture of the pressure vessel or plant 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 for 1.5 times the maximum permissible working pressure, whichever is less.
(8) Thin walled pressure vessel or plant
(a) In respect of any pressure vessel or plant 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 year no such cylinder shall be allowed to continue to be used for more than twenty years after it 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 likely to affect its strength or safety have been carried out, shall be tested before use to at least, 1.5 times its maximum permissible working pressure.

1 (9) Report by competent person
2 (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 record 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 9 and shall be signed by the person making the examination or test, and shall be kept available for persual 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 condition 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.

(d) 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 of 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 other laws 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.]

56-A. Other safety measures

1 (1) In the case of oxygen prepared by electrolytic process for the purpose of compressing, the purity of oxygen shall not fall at any time below 99 per cent by volume.

2 (2) The electrical connections of the electrolytic cell shall be so arranged as to overrule the possibility of wrong connection of the terminals leading to reversal of polarity.

3 (3) Oxygen and hydrogen pipe shall be painted with distinguishing colours to eliminate the possibility of faulty connections and the connecting of the cells to the right lines shall be carried out by a competent person nominated by the Manager.

4 (4) Samples of oxygen shall be taken and tested for purity at both the ends of the gas-pipes connecting the gas holder and the suction end of the compressor after the supply of oxygen to the gas-holder is cut off completely from the cells by means of a stop-valve. Testing of the gas for purity shall be reported thereafter every hour and records maintained in a register which shall be approved by the Chief Inspector of Factories in this behalf.

5 (5) Each plant shall be provided with at least two gas-holder so that while oxygen of one of them completely isolated from the cells is being compressed, the gas generated at the cells is collected in the other.

1 (6) Testing of purity of oxygen shall be carried out by a competent person nominated by the manager and the person so nominated shall sign the register against each set of readings to certify the correctness of the same.

EXCESSIVE WEIGHTS

57. 28[Excessive weights

1 (1) No woman or young person shall be permitted to lift, carry or move without mechanical aid any material, articles, tool or appliances exceeding the maximum limit in eight set out in the schedule to these rules.

2 (2) No person, unaided by another person or mechanical aid, shall be required or allowed to lift, put down, carry or move any lead of material, article, tools or appliance, exceeding the maximum limit in weight as set out in the Schedule given hereunder in this Rule.

3 (3) No woman or young person shall engage, in conjunction with others in lifting, carrying or moving any material, articles, tool or appliance, if the weight thereof exceeds the

maximum weight fixed by the schedule referred to in Sub-Rule (2) for any of the persons engaged, multiplied by the number of the persons engaged:

4 (4) Taking into account all the conditions in which the work is to be performed, no worker shall be required or permitted to engage in the manual transport of load which, by reason of its weight, is likely to jeopardise his health or safety.

5 (5) Wherever reasonably practicable, suitable technical devices shall be used for the regular manual transport of loads.

SCHEDULE

Persons		Maximum weight of material, article, tool or appliance
(a)	Adult Men	50 Kilogram
(b)	Adult Women	30 Kilogram
(c)	Young persons (Male 15-18 Years)	30 Kilogram
(d)	Young Persons (Female 15-18 Years)	20 Kilogram
(e)	Young Persons (Male 14-15 Years	16 Kilogram
(f)	Young Persons (Female 14-15 Years)	14 Kilogram

Explanation: For the purpose of these rules

(a) The expression “manual transport of loads” means any transport in which the weight of the load is wholly borne by one worker, it covers the lifting and putting down of loads, and

(b) The term “regular manual transport of loads” means any activity transport of loads, or which principally devoted to the manual transport of loads, or which normally includes, even though intermittently the manual transport of loads.]

PROTECTION OF EYES RULES

58. Protection of eyes

Effective screens or suitable goggles shall be provided for the protection of persons employed on, or in the immediate vicinity of the following processes:
(a) The processes specified in the schedule given below, being processes which involve risk of injury to the eyes from particles, or fragments thrown off in the course of the process:

SCHEDULE

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

ii (ii) Welding or cutting of metals by means of an electric oxy-acetylene or similar process.

The following process when carried on by means of hand tools or other portable tools:
Fettling of metal castings involving the removal of metal.
Cutting out or cutting off cold rivets or bolts from boilers or other plants, or from ships; chipping or scaling of boilers or ships plates. Breaking or dressing of stones, concrete or slag.
(b) The processes specified below, being processes, which involve risk of injury to the eyes by reason of exposure to excessive light:
(i) Welding or cutting of metals by means of an electrical, oxy-acetylene or similar process.
(ii) All processes in connection with furnaces where molten material is dealt with and rotary kilns.

PRECAUTIONS AGAINST DANGEROUS FUMES

59. Minimum dimensions of manholes

In every factory: Except in the case of factories registered before April 1, 1949, in whose case this rule shall be applicable from July 1, 1951—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 the case of a rectangular or oval shape, be not less than 16 inches long and 12 inches wide.
(b) In the case of circular shape, be not less than 16 inches in diameter.

60. Exemptions

(1) The requirements of sub-section (4) of Section 37 shall not 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 conditions that:

(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 acetylene 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 experienced operatives under the constant supervision of a competent person. (b) The operations of cutting or welding steel or wrought iron gas mains and service pipes by the application of heat, subject to the conditions that:

(i) The main or service pipes shall be situated in the open air, and it shall contain only the following gases, separately or mixed at a pressure, namely, gas coke, oven gas, or producer gas, blast furnace gas, or gases other than air, used in their manufacture.
(ii) The main or service pipes shall not contain acetylene or any gas or mixture of gases to which acetylene has been added intentionally.
(iii) The operation shall be carried out by an experienced person or persons and at least two persons (including those carrying out the operations) experienced in work on gas mains and over 18 years of age shall be present during the operation.
(iv) The site of the operation shall be free from any inflammable or explosive gas vapour.

i (v) Where acetylene gas is used as a source of heat in connection within operated it shall be compressed and contained in a porous substance in a cylinder.
(vi) Prior to the application of any flame to the gas, main or service pipes shall be pierced or drilled and the escaping gas ignited. (c) The operation of repairing an oil tank by the electric welding process subject to the following conditions:

(i) The only oil contained in the tank shall have a flash point of not less than 150°F. (close test) and a certificate to this effect shall be obtained from a competent analyst.
(ii) The analyst's certificate shall be kept available for inspection by an Inspector.
(iii) The welding operation shall be carried out only on the exterior surface of the tank at a place (a) which is free from oil or oil leakage in inflammable quantities and (b) which is not less than one foot below the nearest part of the surface of the oil within the tank.
(iv) Welding shall be done only by the electric welding and shall be carried out by experienced operatives under the constant supervision of a competent person.
(2) Nothing in this rule shall be deemed to make any exemption from the requirements of the provisions of rules made under any other Act.

MEANS OF ESCAPE IN CASE OF FIRE

61. Fire

1 (1) Processes, equipment, plant, etc., involving serious explosion and serious fire hazards

2 (a) All processes, storages, equipments, plants etc. involving serious explosion and flash fire hazards shall be located in segregated buildings where the equipment shall be so arranged that only a minimum number of employees are exposed to such hazards at any one time.

3 (b) All industrial processes involving serious fire hazard should be located in buildings or work places separated from one another by walls of fire-resistant constructions.

4 (c) Equipment and plant involving serious fire or flash fire hazard shall, wherever possible, be so constructed and installed that in case of fire, they can be easily isolated.
5 (d) Ventilation ducts, pneumatic conveyors and similar equipment's involving a serious fire risk should be provided with flame arresting or automatic fire extinguishing appliances.

(e) In all workplaces having serious fire or flash fire hazards, passages between machines, installations or piles of materials should be at least 90cm wide.
(2) Access for fire fighting: Buildings and plant shall be so laid and roads, passage ways etc. so maintained as to permit unobstructed access for firefighting.
(3) Protection against lightning: Protection from lightning shall be provided for,
(i) buildings in which explosive or highly flammable substances are manufactured, used handled or stored;
(ii) storage tanks containing oils, paints, or other flammable liquids
(iii) grain elevators; and
(iv) Buildings, tall chimneys or stacks where flammable gases, fumes, dust or lint are likely to be present.
(4) Explosive: All explosives shall be handled, transported, stored and used in accordance with the provisions in the Indian Explosives Act, 1884.
(5) Precautions against ignition: Wherever there is danger of fire or explosion from accumulation of flammable or explosive substances in air, (a) all electrical apparatus shall either be excluded from the area of risk or they shall he of such construction and so installed and maintained as to prevent the danger of there being a source of ignition;
(b) Effective measures shall be adopted for prevention of accumulation of static charges to a dangerous extent;
(c) workers shall wear shoes without iron or steel nails or any other exposed ferrous materials which is likely to cause sparks by friction;
(d) smoking, lighting or carrying of matches, lighters or smoking materials shall be prohibited;
(e) transmission belts with iron fasteners shall not be used; and
(f) all other precautions as are reasonably practicable shall be taken to prevent initiation of ignition from all other possible sources such as open flames, frictional sparks overheated surfaces of machinery or plant, chemical or physical-chemical reaction and radiant heat.

(6) Spontaneous ignition: Where materials are likely to induce spontaneous ignition, care shall be taken to avoid formation of air pocket and to ensure adequate ventilation.
(7) Cylinders containing compressed gas: Cylinders containing compressed gas may only be stored in open if they are protected against excessive variation of temperature, direct rays of sun, or continuous dampness. Such cylinders shall never be stored near highly flammable substances, furnaces or hot processes. The room where such cylinders are stored shall have adequate ventilation.
(8) Storage of flammable liquids:

(a) The quantity of flammable liquids in any work room shall be the minimum required for the process or processes carried on in such room. Flammable liquids shall be stored in suitable containers with close fitting covers:

(b) Flammable liquids shall be stored in closed containers and in limited quantities in well ventilated rooms of fire resisting constructions which are isolated from the remaining of the building by fire walls and self-closing fire doors.
(c) Large quantities of such liquids shall be stored in isolated adequately ventilated building or fire resisting construction or in storage tanks, preferably underground and at a distance from any building as required in the Petroleum Rules, 1976.
(d) Effective steps shall be taken to prevent leakage of such liquids into basements, sumps or drains and to confine any escaping liquid within safe limits.
(e) Coal, oil, gasoline, or other flammable materials shall not be poured in any sewer or drain.
(a) Effective steps shall be taken for removal or prevention of the accumulation in the air of flammable dust, gas, fume or vapour to an extent which is likely to be dangerous.
(b) No waste material of a flammable nature shall be permitted to accumulate on the floors and shall be removed at least once in a day or shift, and more often, when possible, such materials shall be placed in suitable metal containers with covers wherever possible.

Provided that not more than 20 litres of flammable liquids having a flash point of 218 $_0$C or less shall be kept or stored in any work room.
1 (9) Accumulation of flammable dust, gas, fume or vapour in air or flammable waste material on the floors:
2 (10) Fire exits
3 (a) In this rule,
4 (i) "horizontal exit" means an arrangement which allows alternative egress from a floor area to another floor at or near the same level in an adjoining building or an adjoining part of the same building with adequate separation; and
5 (ii) "travel distance" means the distance an occupant has to travel to reach an exit.
6 (b) An exit may be a doorway, corridor, passage way to any internal or external stair way or to a verandah. An exit may also include a horizontal exit leading to an adjoining building at the same level.
7 (c) Lifts, escalators and revolving doors shall not be considered as exits for the purpose of this sub-rule.

(d) In every room of a factory exits sufficient to permit safe escape of the occupants in case of fire or other emergency shall be provided which shall be free of any obstruction.
(e) The exits shall be clearly visible and suitable illuminated with suitable arrangement, whatever artificial lighting is to be adopted for this purpose, to maintain the required illumination in case of failure of the normal source of electric supply.
(f) The exits shall be marked in a language understood by the majority of the workers.
(g) Fire resisting doors or roller shutters shall be provided at appropriate places along the escape routes to prevent spread of fire and smoke, particularly at the entrance of lifts or stairs where funnel or flue effect may be created inducing an upward spread of fire.
(h) All exits shall provide continuous means of egress to the exterior of a building or to an exterior open space leading to a street.
(i) Exits shall be so located that the travel distance on the floor shall not exceed 30 metres.

(j) In case of those factories where high hazard materials are stored or used, the travel distance to the exit shall not exceed 22.5 metres and there shall be at least two ways of escape from every room, however small except toilet rooms, so located that the points of access thereto are out of or suitably shielded from areas of high hazard.
(k) Wherever more than one exit is required for any room space or floor, exits shall be placed as remote from each other as possible and shall be arranged to provide direct access in separate directions from any point in the area served.
(l) The unit of exit width used to measure capacity of any exit shall be 50 cm. A clear width of 25 cm shall be counted as an additional half unit. Clear width of less than 25 cm shall not be counted for exit width.
(m) Occupants per unit width shall be 50 for stairs and 75 for doors.
(n) For determining the exits required, the occupant load shall be reckoned on the basis of actual number of occupants within any floor area or 10 square metres per person, whichever is more.
(o) There shall not be less than two exits, serving every floor area above and below the ground floor, and at least one of them shall be an internal enclosed stairway.
(p) For every building or structure used for storage only, and every section thereof considered separately, shall have access to at least one exit so arranged and located as to provide a suitable means of escape for any person employed therein, and in any such room wherein more than 10 persons as may be

normally present at least two separate means of exit shall be available, as remote from each other as practicable.
(q) Every storage area shall have access to at least one means of exit which can be readily opened.
(r) Every exit door way shall open into an enclosed stairway, a horizontal exit on a corridor or passage way providing continuous and protected means of egress.
(s) No exit doorway shall be less than 100 cm. in width Doorways shall be not less than 200 cm in height.
(t) Exit doorways shall open outwards, that is, away from the room but shall not obstruct the travel along any exit. No door when opened, shall reduce the required width of stairway or landing to less than 90 cm. Overhead or sliding doors shall not be installed for this purpose.
(u) An exit door shall not open immediately upon a flight of stairs. A landing atleast the width of the doorway shall be provided in the stairway at each doorway. The level of landing shall be the same as that of the floor which it serves.
(v) The exit doorways shall be openable from the side which they serve without the use of a key.
(w) Exit corridors and passage ways shall be of a width not less than the aggregate required width of exit doorways leading from there in the direction of travel to the exterior.
(x) Where stairways discharge through corridors and passageways the height of the corridors and passageways shall not be less than 2.4 metres.
(y) Internal stairs shall be constructed of non-combustible materials throughout and at least one of the external stairs, which affords a means of access in case of fire, shall be of non-combustible material throughout.

(z) Internal stairs shall be constructed as a self-contained unit with at least one side adjacent to an external wall shall be completely enclosed.
(aa) A staircase shall not be arranged round a lift shaft unless the latter is totally enclosed by a materials having a fire resistance rating not lower than that of the type of construction of the former.
(bb) Hollow combustible construction shall not be permitted.
(cc) The minimum width of an internal staircase shall be 115 cm.
(dd) The minimum width of treads without nosing shall be 25 cm for an internal staircase. The treads shall be constructed and maintained in a manner to prevent slipping.
(ee) The maximum height of a riser shall be 19 cm. and the number of risers shall be limited to 12 per flight.

(ff) Hand rails shall be provided with a minimum height of 100 cm and shall be firmly supported: and where necessary shall be provided on both sides of the staircase.
(gg) The use of spiral staircase shall be limited to low occupant load and to a building of height of 9 metres, unless they are connected to platforms such as balconies and terraces to allow escapes to pause. A spiral staircase shall be not less than 300 cm in diameter and have adequate headroom.
(hh) The width of a horizontal exit shall be same as for the exit doorways.
(ii) The horizontal exit shall be equipped with at least one fire door of self-closing type.
(jj) The floor area on the opposite or refuge side of a horizontal exit shall be sufficient to accommodate occupants of the floor areas served, allowing not less than 0.3 square metre per person. The refuge area shall be provided with exits adequate to meet the requirements of this sub-rule. At least one of the exits shall lead directly to the exterior or street.
(kk) Where there is difference in level between connected areas for horizontal exit, ramps not more than 1 in 8 slope shall be provided. For this purpose, steps, shall not be used.
(ll) Doors in horizontal exits shall be openable at all time.
(mm) Ramps with a slope of not more than 1 to 10 may be substituted for the requirements of staircase. For all slopes exceeding 1 to 10 and wherever the use in such as to involve danger of slipping, the ramp shall be surfaced with non-slipping material.
(nn) In any building not provided with automatic fire alarm a manual fire alarm system shall be provided if the total capacity of the building is over 500 persons, or if more than 25 persons are employed above or below the ground floor, except that no manual fire alarm shall be required in one-storey buildings where the entire area is undivided and all parts thereof are clearly visible to all occupants.
(11) First-aid firefighting arrangements (a) In every factory, there shall be provided and maintained adequate and suitable firefighting equipment for fighting fires in the early stages, those being referred to first-aid firefighting equipment in this rule.
(b) The types of first-aid firefighting equipment to be provided shall be determined by considering the different types of fire risks which are classified as follows:

(i) "Class A fire": Fire due to combustible materials such as wood, textiles, paper, rubbish and the like.

1 1. "Light hazard": Occupancies like offices, assembly halls, canteens, rest-rooms, ambulance rooms and the like;
2 2. "Ordinary hazard": Occupancies like saw mills, carpentry shop, small timber yards, book binding shops, engineering workshop and the like;
3 3. "Extra hazard": Occupancies like large timber yards, godowns storing fibrous materials, flour mills, cotton mills, jute mills, large wood working factories and the like;
4 (ii) "Class B fire": Fire in flammable liquids like oil, petroleum produces, solvents, grease, paints etc.
5 (iii) "Class C fire": Fire-arising out of gaseous substances.
6 (iv) "Class D fire": Fire from reactive chemicals, active metals and the like.
(v) "Class E fire": Fire involving electrical equipment and delicate machinery and the like. (c) The number and types of first-aid fire-fighting equipment to be provided shall be as per the following scale:

(i) Class-A Fire
1. Light Hazard: One 9 liter water bucket for every 100 square meters of floor area or part thereof and one 9 liter water type (soda acid or gas pressure or bucket pump) extinguisher shall be provided for each 6 buckets or part thereof with a minimum of one extinguisher and two buckets per compartment of the building. These equipments shall be so distributed over the entire floor areas that a person shall have to travel not more than 25 metres from any point to reach the nearest equipment.
2. Ordinary Hazard: One 9 litre water bucket for every 100 square meters of floor area or part thereof and one 9 litre water type (soda acid or gas pressure or bucket pump) extinguisher shall be provided for each six buckets or part thereof, with a minimum of 2 extinguishers and 4 buckets per compartment of the building. These equipments shall be so distributed over the entire floor areas that a person shall have to travel not more than 15 metres from any point to reach the nearest equipment.
3. Extra hazard: The scale of equipment would be what is prescribed for ordinary hazard and, in addition, such extra equipments as, in the opinion of the Inspector are necessary having regard to the special nature of occupancy:

Provided that in special cases, the Inspector, after taking into consideration the circumstances, authorise that the buckets

prescribed in this clause may be dispensed with provided the number of the extinguishers provided in double of that what is prescribed.
i (ii) Class-B Fire: There shall be at least one fire-extinguisher either, foam type or carbon dioxide or dry power type per 50 square metres of floor area and shall be so distributed that no person is required to travel more than 15 meters from any point to reach the nearest equipment. In addition to the requirements, extinguishers specified here, requirements as laid down in clause (1) shall also be provided.
ii (iii) Class C Fire: Carbon dioxide or dry chemical power extinguishers shall be provided near each plant or group of plants.

iii (iv) Class D Fire: Special dry power (Chloride based) type of extinguisher shall be provided near each plant or group of plants depending upon the risk involved.
(v) Class E Fire: Carbon dioxide of dry power type extinguisher shall be provided near each plant or group of plants depending upon the risk involved. (d) The first-aid firefighting equipments shall conform to the relevant Indian Standards.
(e) As far as possible the first-aid firefighting equipments shall all be similar in shape and appearance and shall have the same method of operation.
(f) All first-aid firefighting equipments shall be placed in a conspicuous position and shall be readily and easily accessible for immediate use. Generally, these equipments shall be placed as near as possible to the exits or stair landing of normal routes of escape.
(g) All water buckets and pump type extinguishers shall be filled with clean water. All sand buckets shall be filled with clean, dry and fine sand. All water and sand buckets shall be painted red.
(h) All other extinguishers shall be charged appropriately in accordance with the instructions of the manufacturer.
(i) Each first-aid fire-fighting equipment shall be allotted a serial number by which it shall be referred to in the records. The following details shall be painted with white paint on the body of each equipment:

1. Serial number;
2. Date of last refilling; and
3. Date of last inspection. (j) First-aid fire-fighting equipments shall be placed on platforms or in cabinets in such a way that their bottom is 750 mm above floor level. Fire buckets shall be

placed on books attached to a suitable stand or wall in such a way that their bottom is 750 mm above the floor level. Such equipments if placed outside the building, shall be under sheds or covers.
(k) All extinguishers shall be thoroughly cleaned and re-charged immediately after discharge. Sufficient refill material shall be kept readily available for this purpose at all times.
(l) All first-aid firefighting equipments shall be subjected to routine maintenance, inspection, and testing to be carried out by properly trained persons. Periodicity of the routine maintenance, inspection and test shall conform to the relevant Indian Standards.
(m) In case the fire is caused by electrical equipment, the connected switches be pulled out.

1 (12) Other firefighting arrangements
2 (a) In every factory, adequate provisions of water supply for firefighting shall be made and where the amount of water required in litres per minute as calculated from the formula A+B+C+D divided by 20 in 550 or more, power driven trailer pumps of adequate capacity to meet the requirement of water as calculated above shall be provided and maintained.

In the above formula:
A: The total area in square meters of all floors including galleries in all buildings of the factory:

B: The total area in square meters of all floors and galleries including open spaces in which combustible materials are handed or stored:
C: The total area in square meters of all floors over 15 meters above ground level; and
D: The total area of square meters of all floors of all buildings other than those of fire resisting construction:
Provided that in area 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 further that where the areas under B, C or D are protected by permanent automatic fire fighting installations approved by any fire association or fire insurance company such areas may, for the purpose of calculation, be halved:
Provided also that where the factory is situated at not more than 3 kilometers 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% but no account shall be taken of this reduction in calculating water supply required under this clause.

(b) Each trailer pump shall be provided with equipment as per scheduled appended to this rule. Such equipment shall conform to the relevant Indian Standards.
(c) Trailer pump shall be housed in a separate shed or sheds which shall be sited close to a principal source of water supplies in the vicinity of the main risks for the factory.
(d) 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.
(e) Water supply shall be provided to give flow of water as required under clause (a) for at least 100 minutes. At least 50% of this water supply or 450,000 litres whichever is less, shall be in the form of static tanks of adequate capacities (not less than 450,000 litres each) distributed round the factory with due regard to the potential fire risks in the factory. Where piped supply is provided, the size of the main shall not be less than 15 cms in diameter and it shall be capable of supplying a minimum of 4,500 litres per minute at a pressure of not less than 7 kilograms per square centimetre.
(f) All trailer pumps including the equipment provided with -them and the vehicles for towing them shall be maintained in good condition and subjected to periodical inspection and testing as required.
(13) Personnel in charge of equipment and for firefighting, fire drills, etc.
(a) The first-aid and other firefighting equipment to be provided as required in sub-rules (11) and (12) shall be in charge of a trained responsible person.
(b) Sufficient number of persons shall be trained in the proper handling of fire-fighting equipment as referred to in clause (a) and their use against number of persons are available for firefighting both by means of first-aid firefighting equipment and others. Such persons shall be provided with clothing and equipment including helmets, belts and boots, preferably gumboots. Wherever vehicles with towing attachment are to be provided as required in clause (d) of sub-rule (11) sufficient number of persons shall be trained in driving these vehicles to ensure the trained persons are available for driving them whenever the need arises.
(c) Firefighting drills shall be held at least once in every 3 months.

(14) Automatic sprinklers and fire hydrants shall be in addition and not in substitution of the requirements in sub rules (11) and (12).
(15) If the Chief Inspector is satisfied in respect of any factory or any part of the factory that owing to the exceptional circumstances such as inadequacy of water supply or infrequency of the manufacturing process or for any other reason, to be recorded in writing, all or any of the requirements of the rules are impracticable or not necessary for the protection of workers, he may by order in writing (which he may at his

1 discretion revoke) exempt such factory or part of the factory from all or any of the provisions of the rules subject to conditions as he may by such order prescribe.

SCHEDULE
EQUIPMENT TO BE PROVIDED WITH TRAILER PUMP

For light trailer pump of a capacity of 680 litres / minute	
1	Armoured suction hose of 9 m length, with wrenches
1	Metal suction strainer
1	Basket strainer
1	Two-way suction collecting-head
1	Suction adapter
10	Unlined or rubber lined 70 mm delivery hose of 25 metres, length complete with quickrelease couplings
1	Dividing breachingpiece
2	Branchpiece with 15 mm nozzles
1	Diffuser nozzle
1	Standpipe with blank cap
1	Hydrant key
4	Collapsible canvas buckets
1	Fire hook (preventer) with cutting edge
1	25 mm manila rope of 30 meters length
1	Extension ladder of 9 m length (where necessary)
1	Heavy axe
1	Spade
1	Pick axe
1	Crowbar
1	Saw

1	Hurricane lamp
1	Electric torch
1	Pair rubber gloves
For large trailer pump of a capacity of 1800 litres/minute	
1	Armoured suction hose of 9 m length, with wrenches

1	Metal suction strainer
1	Basket strainer
1	Threeway suction collecting head
1	Suction adapter
14	Unlined or rubber lined 70 mm delivery hose of 25 m, length complete with quickrelease couplings
1	Dividing breaching piece
1	Collecting breachingpiece
4	Branch pipes with one 25 mm two 20 mm and one diffuser nozzle
2	Standpipes with blank caps
2	Hydrant keys
6	Collapsible canvas buckets
1	Ceiling hook (preventer) with cutting edge
1	50 mm manila rope of 30 m length
1	Extension ladder of 9 m length (where necessary)
1	Heavy axe
1	Spade
1	Pick axe
1	Crowbar
1	Saw
1	Hurricane lamp
1	Electric torch
1	A pair of rubber gloves

Note: If it appears to the Chief Inspector 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. [* * *]29

62A. 30[Ovens and Driers

1 (1) Application: This rule shall apply to ovens and driers, except those used in laboratories or kitchens of any establishment and those which has a capacity below 325 litres.

1 (2) Definitions: For the purpose of this rule oven or drier means any enclosed structure, receptacle, compartment or box which is used for baking, drying or otherwise processing of any article or substance at a temperature higher than the ambient temperature of the air in the room or space in which a flammable or explosive mixture of air and a flammable substance is likely to be evolved within the enclosed structure receptacle, compartment or box or part thereof on account of the article or substance which is baked, dried or otherwise processed within it.

2 (3) Separate electrical connection: Electrical power supplied to every oven or drier shall be by means of a separate circuit provided with an isolation switch.

3 (4) Design, construction, examination and testing:

4 (a) Every oven or drier shall be properly designed on sound engineering practice and be of good construction, sound materials and adequate strength, free from any patent defects and safe if properly used;

5 (b) No oven or drier shall be taken into use in factory for the first time unless a competent person has thoroughly examined all its parts and carried out the tests as are required to establish that the necessary safe systems and controls provided for safety in operation for the processes for which it is to be used and a certificate of such examination and tests signed by that competent person has been obtained and is kept available for inspection ; and

6 (c) All parts of an oven or drier which have undergone any alteration or repair which has to effect of modifying any of the design characteristics, shall not be used unless a thorough examination and tests as have been mentioned in clause (b) have been carried out by a competent person and a certificate of such examination and tests signed by that competent person has been obtained and is kept available for inspection.

7 (5) Safety ventilation

8 (a) Every oven or drier shall be provided with a positive and effective safety ventilation system using one or more motordriven centrifugal fans so as to dilute any mixture of air and any flammable substance that may be formed within the oven or drier and maintain the concentration of the flammable substance in the air at a safe level of dilution;

9 (b) The safe level of dilution referred to in clause (a) shall be so as to achieve a concentration of the concerned flammable substance in air of not more than 25 per cent of its lower explosive limit:

Provided that a level of concentration in air up to 50 per cent of the lower explosive limit of the concerned flammable substance may be permitted to exist subject to installation and maintenance of an automatic device which:

i (i) Shows continuously the concentration of the flammable substance in air present in the oven or drier at any instant;

i (ii) Sounds an alarm when the concentration of the flammable substance in air in any part of the oven or drier reaches a level of 50 per cent of its lower explosive limit ; and

ii (iii) Shuts down the heating system of the oven or drier automatically when the concentration in air of the flammable substance in any part of the oven or drier reaches a level of 60 per cent of its lower explosive limit; is provided to the oven or drier and maintained in efficient working condition;

iii (c) No oven or drier shall be operated without its safety ventilation system working in an efficient manner;

iv (d) No oven or drier shall be operated with a level of dilution less than what is referred to in clause (b) ;

v (e) exhaust ducts of safety ventilation systems should be so designed and placed that their ducts discharge the mixture of air and flammable substance away from the workrooms and not near windows or doors or other openings from where the mixture could reenter the workrooms;

vi (f) The fresh air admitted into the oven or drier by means of the safety ventilation system shall be circulated adequately by means of circulating fan or fans through all parts of the oven or drier so as to ensure that there are no locations where the flammable substance can accumulate in the air or become pocketed to any dangerous degree; and

vii (g) Throttling dampers in any safety ventilation system should be so designed by cutting away a portion of the damper or otherwise, that the system will handle at least the minimum ventilation rate required for safety when they are set in their maximum throttling position.

viii (6) Explosion panels

ix (a) Every oven or drier having an internal total space of not less than half cubic meter shall be provided with suitably designed explosion panels so as to allow release of the pressure of any possible explosion within the oven or drier through explosion vents. The area of openings to be provided by means of such vents together with area of openings of any access doors which are provided with suitable arrangements for their release in case of an explosion shall be not less than 2200 square centimetre for every one cubic meter of volume of the oven or drier. The design of the explosion panels and doors as above said shall be much as to secure the complete release under the internal pressure of 0.25 Kg. per square centimeter; and

x (b) the explosion releasing panels, shall as far as practicable, be situated at the roof of the oven or drier or at those portions of the walls where persons not remain in connection with operation of the oven or drier.

1 (7) Interlocking arrangements: In each oven or drier efficient interlocking arrangements shall be provided and maintained to ensure that:

2 (i) all ventilating fans and circulating fans whose failure would adversely effect the ventilation rate or flow pattern are in operations before any mechanical conveyor that may be provided for feeding the articles to be processed in the oven or drier is put into operation:
3 (ii) failure of any of the ventilating or circulating fans will automatically stop any conveyor as referred to in clause (i) as may be provided, as well as stop the fuel supply by closing the shut off valve and shut off the ignition in the case of gas or oil fired oven and in the case of electrically heated ovens switch off the electrical supply to the heaters;
4 (iii) the above said mechanical conveyor is not in operation before the above said shutoff valve can be energized ; and
5 (iv) the failure of the above said conveyor will automatically close and above said shut off value in the case of ovens and driers heated by gas, oil or steam and reactivate the ignition system, or cut off the electrical heaters in the case of electrically heated ovens or furnaces.
6 (8) Automatic preventilation: Every oven or drier heated by oil, steam, gas or electricity shall be provided with an efficient arrangement for automatic preventilation consisting of at least 3 volumes changes with fresh air by operation of the safety ventilation fans and the circulating fans (if used) so as to effect purging of the oven or drier of any mixture of air and a flammable substance before the heating system can be activated and before the conveyor can be placed in position.
7 (9) Temperature Control: Every oven or drier shall be provided with an automatic arrangement to ensure that the temperature within does not exceed a safe upper present limit to be decided in respect of the particular processing being carried on.
8 (10) Multistage processes: Wherever materials are to be processed in ovens or driers, start successive operations suitable arrangement should be provided to ensure that the operating temperatures necessary for safe operation at each stage are maintained within the design limits.
9 (11) Combustible substances not to drip on electrical heaters or burners flame: Effective arrangements shall be provided in every oven or drier to prevent dripping of combustible substances on electric heaters or burner flame used for heating.
10 (12) Periodical examination testing and maintenance:
11 (a) All parts of every oven and drier shall be properly maintained and thoroughly examined and the various controls as mentioned in this rule and the working of the oven or drier tested at frequent intervals to ensure its safe operation by a responsible person designated by the occupier or manager, who by his experience and knowledge of necessary precautions against risks of explosion is fit to undertake such works ; and

(b) A register shall be maintained in which the details of the various tests carried out from time to time under clause (a) shall be entered and every entry made shall be signed by the person making the tests.
(13) Training of operators: No person shall be assigned any task connected with operation of any oven or drier unless he has completed 18 years of age and he is properly trained.
(14) Polymerising machines
(a) Printed fabric shall be thoroughly dried by passing them over drying cans or through hot flue or other equally effective means, before the same is allowed to pass through polymerising machines, and

(b) Infra-red ray heaters of polymerising machines shall be cutoff while running the prints.]

62B [31][Section 41 and 41G Safety Committee

1 (1) In every factory,

2 (a) Wherein 250 or more workers are ordinarily employed ; or

3 (b) which carried on any process of operation declared to be dangerous under section 87 of the Act ; or

4 (c) which carried on 'hazardous process' as defined under section 2(cb) of the Act there shall be Safety Committee.

5 (2) The representatives of the management on Safety Committee shall include:

6 (a) a senior official, who by his position in the organisation can contribute effectively to the functioning of the Committee, shall be the Chairman;

7 (b) a Safety Officer and a Factory Medical Officer wherever available, and the Safety Officer in such a case shall be the Secretary of the Committee;

8 (c) a representative each from the production, maintenance and purchase departments.

9 (3) The workers' representatives on the Committee shall be elected by the workers.

10 (4) The tenure of the Committee shall be two years.

11 (5) Safety Committee shall meet as often as necessary but at least once in every quarter. The minutes of the meeting shall be recorded and ; shall be produced to the Inspector on demand. A copy thereof shall be sent to the Inspector of Factories of the region concerned.

12 (6) Safety Committee shall have the right to be adequately and suitably informed of:

13 (a) potential safety and health hazards to which the workers may be exposed at work place.

(b) data on accidents as well as data resulting from surveillance of the working environment and of the health of workers exposed to hazardous substances so far as the factory is concerned, provided that the Committee undertakes to use the data on measure to improve the working environment and the health and safety of the workers.

(7) Function and duties of the Safety Committee shall include:

(a) assisting and cooperating with the management in achieving the aims and objectives outlined in the 'Health and Safety Policy' of the occupier;

(b) dealing with all matters concerning health safety and environment and to arrive at practicable solutions to problems encountered;

(c) creating safety awareness amongst all workers;

(d) undertaking educational, training and promotional activities;

(e) discussing reports on safety, environment and occupational health surveys, safety audits, risk assessment, emergency and disaster management plans and implementation of the recommendations made in the reports ;

(f) carrying out health and safety surveys and identify causes of accidents ;

(g) looking into any complaint made on the likelihood of an imminent danger to the safety and health of the workers and suggesting corrective measures; and

(h) reviewing the implementation of the recommendations made by it.

(8) Where owing to the size of the factory, or any other reason, the functions referred to in subrule (7) cannot be effectively carried out by the Safety Committee, it may establish subcommittees as may be required to assist it.]

63. Provision against danger arising from mechanical transport in factories

(a) No railway wagon shall be moved either by power or hand unless the movements are directly supervised by a responsible person or persons especially appointed for this purpose and a person shall be deputed to walk ahead to the wagon or wagons being shunted with a suitable bell or other audible device so as to ensure that no person is allowed to pass in front of or between the moving wagon or wagons. Name of such person or persons shall be separately shown in the attendance register in Form 12.

(b) Mechanical transport other than railways and fixed transporter when moved by power shall only be operated by persons trained to work them, and further such operations shall be under the charge of a responsible supervisor.

32[CHAPTER IVA

PROVISIONS RELATING TO HAZARDOUS PROCESSES

63A. Site Appraisal Committee

1 (1) Constitution: The following provisions shall govern the functioning of the Site Appraisal Committee, hereinafter referred to as the "Committee" in these rules:

(a) the State Government may constitute or reconstitute the committee as and when necessary;

(b) the State Government may appoint a senior official of the Factories Inspectorate preferably with qualification in Chemical engineering to be Secretary of the Committee;

(c) the State Government may coopt the following persons as members of the Committee:

(i) a representative of the Fire Service Organisation of the State Government;

(ii) a representative of the Department of Industries of the State Government;

(iii) a representative of the Director General of Factory Advice Service and Labour Institute, Mumbai;

(2) No member unless required to do so by a court of law shall disclose otherwise than in connection with the purpose of the Act, at any time any information relating to manufacturing or commercial business or any working process which may come to his knowledge during his tenure as a member on the committee.

(3) Applications for appraisal of Sitesin respect of the factories covered under section 2 (cb) of the Act shall be submitted to the Chairman of the Committee along with 15 copies thereof in form annexed to this rule. The committee may dispense with the furnishing of the information on any particular item in the application under consideration.

(4) Functions of the Committee:

(a) The Secretary shall arrange to register the applications received for appraisal of site in a separate register and acknowledge the same within a period of 7 days.

(b) The Secretary shall fix up meeting in such a manner that all the applications received and registered are referred to the Committee within a period of one month from the date of their receipt.

(c) The Committee may adopt a procedure for its working keeping in view the need for expeditious disposal of applications.
(d) The Committee shall examine the application for appraisal of a site with reference to the prohibitions and restrictions on the location of industry and the carrying on the processes and operations in different areas as per the provisions of Rule 5 of the Environment (Protection) Rules, 1986 framed under the Environment Protection Act, 1986.
(e) The Committee may call for documents examine experts, inspect the site, if necessary, and take other steps for formulating its view in regard to the suitability of the site.

(f) Wherever the proposed site requires clearance by the Ministry of Industry or the Ministry of Environment and Forests of the Government of India site appraisal will be considered by the Committee only after such clearance has been received.
(g) No business shall be transacted to in any meeting unless at least five members are present.
(5) Traveling Allowance: A nonofficial member of the Committee shall be entitled to draw traveling and daily allowances for any journey performed by him in connection with his duties as member of the Committee at the rates and subject to the conditions laid down in rule 20 of Financial Handbook, Volume III.

63 B. Sections 7-A (3), 41-B (2) and 112 Health and Safety Policy

1 (1) The occupier of every factory, except as provided for in subrule (2), shall prepare a written statement of his policy in respect of health and safety workers at work.
2 (2) All factories:
3 (a) covered under section 2 (m) (i) but employing less than 50 workers.
4 (b) covered under section 2 (m) (i) but employing less than 100 workers. are exempted from requirements of subrule (1):

Provided that they are not covered under the First Schedule under section 2(cb) or operations declared to be dangerous under section 87 of the Act.
1 (3) Notwithstanding anything contained in subrule (2), the Chief Inspector may require the occupiers of any of the Factories or class or description of factories to comply with the requirements of subrule (1), if, in his opinion, it is expedient to do so.
2 (4) The Health and Safety Policy should contain or deal with:
3 (a) Declared intension and commitment of the top management to health, safety and environment and compliance with all the relevant statutory requirements;
4 (b) Organisational set up to carry out the declared policy clearly assigning the responsibility at different levels; and
5 (c) Arrangements for making the policy effective.
6 (5) In particular, the policy should specify the following:
7 (a) Arrangements for involving the workers;
8 (b) intention of taking into account the health and safety performance of individuals at different levels while considering their career advancement ;
9 (c) the responsibility of the contractors, subcontractors, transporters and other agencies entering the premises;
10 (d) a resume of health and safety performance of the factory in its Annual Report;

(e) relevant techniques and methods such as safety audits and risk assessment for periodical assessment of the status on health, safety and environment and taking all the remedial measures ;
(f) its intentions to integrate health and safety, in all decisions including those dealing with purchase of plant, equipment, machinery and material as well as selection and placement of personnel ;
(g) arrangements for informing, educating and training and retraining its employees at different levels and the public, wherever required.
(6) A copy of the declared health and Safety Policy signed by the occupier shall be made available to the Inspector having jurisdiction over the factory and to the Chief Inspector.
(7) The policy shall be made widely known by:
(a) making copies available to all workers including contract workers, apprentices, transport workers, suppliers, etc.
(b) displaying copies of the policy at conspicuous places ; and
(c) any other means of communication ; in a language understood by the majority of workers.
(8) The occupiers shall revise the Safety Policy as often as may be appropriate, but it shall necessarily be revised under the following circumstances:
(a) Wherever any expansion or modification having implications on safety and health of persons at works is made, or
(b) whenever new substances or articles are introduced in the manufacturing process having implications in health and safety of persons exposed to such substances or articles.

63C. Section 41-B and 112 Material Safety Data Sheet
Collection and development and dissemination of information:
1 (1) The occupier of every factory carrying on a hazardous process shall arrange to obtain or develop information in the form of Material Safety Data Sheet (MSDS) in respect of every hazardous substance or material handled in the manufacture, transportation and storage in the factory. It shall be accessible, upon request, to a worker for reference:
2 (a) every such Material Safety Data Sheet shall include the following information:
3 (i) the identification mark used on the label;
4 (ii) hazardous ingredients of the substance ;
5 (iii) physical and chemical characteristics of the hazardous substance ;

i (iv) the physical hazards of the hazardous substance, including the potential for fire, explosion and reactivity;
ii (v) the health hazards of the hazardous substance, including signs and symptoms of exposure, and any medical condition which are generally recognised as being aggravated by exposure to the substance ;
iii (vi) the primary route or routes of entry ;
iv (vii) the permissible limits of exposure prescribed in the Second Schedule under section 41F of the Act, and in respect of a chemical not covered by the said Schedule any exposure limit used or recommended by the manufacturer, importer or occupier ;

v (viii) any generally applicable precautions for safe handling and use of the hazardous substance, which are known, including appropriate hygienic practices, protective measures during repairs and maintenance of contaminated equipment, procedures for clean-up of spills and leaks ;

vi (ix) any generally applicable control measures, such as appropriate engineering controls work practices, or use of personal protective equipment;

vii (x) emergency and firstaid procedures ;

viii (xi) the date of preparation of the Material Safety Data Sheet, or the last change in it ; and

ix (xii) the name, address and telephone number of the manufacturer, importer, occupier or other responsible party preparing or distributing the Material Safety Data Sheet, who can provide additional information on the hazardous substance and appropriate emergency procedures if necessary.

x (b) The occupier while obtaining or developing a Material Safety Data Sheet in respect of a hazardous substance shall ensure that the information, recorded accurately, reflects the scientific evidence used in making the hazard determination. If he becomes newly aware of any significant information regarding the hazards, the new information shall be added to the Material Safety Data Sheet as soon as practicable.

xi (c) An example of such Material Safety Data Sheet is given in the Schedule to this Rule

Labelling:

xii (2) Every container of a hazardous substance shall be clearly labelled or marked to identify:

xiii (a) The contents of the container;

xiv (b) The name and address of the manufacturer or importer of the hazardous substances;

(c) the physical and health hazards ; and

(d) the recommended personal protective equipment needed to work safely with the hazardous substance.

SCHEDULE

MATERIAL SAFETY DATA SHEET

1. Chemical Identify:			
Chemical Name		Chemical Classification	
Formula	C. A. S. No.		U. N. No.
Regulated Identification	Shipping Name Codes/Label		Hazechem No
Hazaradous Waste I.D. No.			
Hazardous Ingredients	C.A.S. No.	Hazaradous Ingredients	C.S.A. No.
2. Physical and Chemical Data			

Boiling Ragne / Point	0C	Physical State	Appearance
Melting / Freezing Point	0C	Vapour Pressure Order @ 35 0C mm Hg	Odour
Vapour Density (Air = 1)	Solubility in Water @30 0C mm Hg Others		Others
Specific Gravity Water = 1		pH	
3. Fire and Explosion Hazard Data			
Flammability Yes / No	UEL %	Flash point 0C	Hazardous Products of combustion
Explosion Sensitivity to Impact		Explosion Sensitivity to Static Electricity	
Hazardous Polymerisation			

Combustible Liquid	Explosive		Corrosive Material
Flammable Material	Oxidiser		Organic Peroxide
4. Reactivity Data:			
Chemical Stability			
Incompatibility with other Materials			
Reactivity Hazardous Products of Reaction			
5. Health Hazard Data:			
Routes of Entry Effects of Exposure / Symptoms			
Emergency Treatment			
TLV (ACGIH)	ppm. mg/m3	STEL ppm.	Mg / m3
Permissible Exposure limit LD 50	ppm. mg/m3	Order ppm.	Threshold ppm. Mg/m3 LD 50
6. Preventive Measures:			
Personnel Protective Equipments			

Handling and Storage Precautions	
7. Emergency and First Aid Measure:	
Fire	Fire Extinguishing Media
Special Procedures	
Unusual Hazards	
Exposure	First Aid Measures
Antidotes / Dosages	
Spills	Steps to be taken
Waste Disposal Method	

8. Additional Information / References:	
9. Manufacturer / Suppliers Data:	
Contact Person in Emergency	
Name of Firm Mailing Address Telephone / Telex nos. Telegraphic Address	Local Bodies involved
Standard Packing	
Tremeard Details / Reference	
Others	
10. Disclaimer:	

Information contained in this material data sheet is believed to be reliable but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application of results to be obtained from them. It is up to the manufacturer / seller to ensure that his information contained in the material Safety data sheet is relevant to the product manufactured / handled or sold by him as the case may be. The Government marks no warranties expressed or implied in respect of the adequacy of this document for any particular purpose:

63D. Disclosure of information to the workers

1 (1) The occupier of every factory carrying on a hazardous process supply to all workers the following information in relation to handling of hazardous materials or substances in the manufacture, transportation, storage and other processes:

2 (a) requirements of Section 41B, 41C and 41H of the Act;

3 (b) a list of hazardous processes carried on in the factory;

4 (c) location and availability of all Material Safety Data Sheets as per Rule 63C.
5 (d) Physical and health hazards arising from the exposure to or handling or, substances;
6 (e) measures taken by the occupier to ensure safety and control of physical and health hazards;
7 (f) measures to be taken by the workers to ensure safe handling, storage and transportation of hazardous substances;
8 (g) personal protective equipment required to be used by workers employed in hazardous process of dangerous operations;

(h) meaning of various labels and markings used on the containers of hazardous substances as provided under Rule 63 D;
(i) signs and symptoms likely to manifest on exposure to hazardous substances and to whom to report;
(j) measures to be taken by the workers in case of any spillage or leakage of a hazardous substance;
(k) role of workers visavis the emergency plan of the factory, in particular the evacuation procedures;
(l) Any other information considered necessary, by the occupier to ensure safety and health of workers.
(2) The information required by subrule (1) shall be complied and made known to workers individually through supply of booklets or leaflets and display of cautionary notices at the work places.
(3) The booklets, leaflets and the cautionary notices displayed in the factory shall be in the language understood by the majority of the workers and shall also be explained to them.
(4) The Chief Inspector may direct the occupier to supply further information to the workers as deemed necessary.

63 E. Disclosure of information to the Chief Inspector
1 (1) The occupier of every factory carrying on a hazardous process shall furnish, in writing, to the Chief Inspector a copy of all the information furnished to the workers.
2 (2) A copy of compilation of Material Safety Data Sheets in respect of hazardous substances used, produced or stored in the factory shall be furnished to the Chief Inspector and the local Inspector.
3 (3) The occupier shall also furnish any other information asked for by the Chief Inspector from time to time for the purpose of the Act and the Rules made thereunder.

63 F. Information on industrial wastes
1 (1) The information furnished under rules 63D and 63E shall include the quantity of the solid and liquid wastes generated per day their characteristic s and the methods of treatment such as incineration of solid wastes, chemical and biological treatment of liquid wastes, and arrangements for their final disposal.
2 (2) It shall also include information on the quality and quantity of gaseous waste discharge through the stacks or other openings and arrangements such as provisions of

scrubbers, cyclone separators, electrostatic precipitators of similar such arrangements made for controlling pollution of the environment.

3 (3) The occupier shall also furnish the information prescribed in the subrule (1), and

4 (4) to the State Pollution Control Board.

63 G. Review of the Information furnished to workers

1 (1) The occupier shall review once in every Calendar year and modify, if necessary, the information furnished under Rules 63D and 63E to the workers and the Chief Inspector.

2 (2) In the event of any change in the process or operations or methods of work or when any new substance is introduced in the process or in the event of a serious accident taking place the information so furnished shall be reviewed and modified to the extent necessary.

63 H. Confidentiality of information

1 (1) The occupier of a factory carrying on a 'hazardous process', shall disclose all information needed for protecting safety and health of the workers to:

2 (a) his workers, and

3 (b) Chief Inspector

as required under rules 63D and 63E if the occupier is of the opinion that the disclosure of details regarding the process and formulations will adversely affect his business interests, he may make a representation to the Chief Inspector stating the reason for withholding such information. The Chief Inspector shall pass an order on the representation after giving an opportunity to the occupier of being heard.

1 (2) An occupier aggrieved by an order of the Chief Inspector may prefer an appeal to the State Government within a period of 30 days and the State Government may after giving an opportunity to the occupier of being heard shall pass order and the order of the State Government shall be final.

63-I. Sections 41-B, 41-C and 112 Medical Examination

1 (1) Workers employed in a 'hazardous process' shall be medically examined by a qualified medical practitioner, hereinafter referred to a Factory Medical Officer, in the following manner:

2 (a) once before employment, to ascertain physical fitness of the person to do a particular job ;

3 (b) once in a period of 6 months, to ascertain the health status of all the worker in respect of occupational health hazards to which they are exposed, and at a shorter interval in respect of a worker in whose case the Factory Medical Officer is of the opinion that it is necessary to do so ;

4 (c) the details of preemployment and periodical medical examinations carried out as aforesaid shall be recorded in the Health register in Form 27.

5 (2) No person shall be employed for the first time without a certificate of fitness in Form 26, granted by the Factory Medical Officer, if the Factory Medical Officer declares a person unfit for employment in a process covered under subrule (1) he shall have the

1 right of appeal to the Inspector who shall refer the matter to the Certifying Surgeon appointed under subsection (1) or authorised under subsection (2) of section 10 of the Act whose opinion shall be final in this regard. If the Inspector is also a Certifying Surgeon, he may dispose of the application himself.

2 (3) Any finding of the Factory Medical Officer revealing any abnormality or unsuitability of any person employed in the process shall, in turn, examine the concerned worker and communicate his findings to the occupier within 30 days. If the Certifying Surgeon is of the opinion that the worker so examined is required to be taken away from the process for health protection, he will direct the occupier accordingly, who shall not employ the said worker in the same process. However, the worker so taken away shall be provided with alternative placement unless he is in the opinion of the Certifying Surgeon fully incapacitated in which case the worker affected shall be suitably rehabilitated.

3 (4) A Certifying Surgeon on his own motion or on a reference from an Inspector may conduct medical examination of a worker to ascertain the suitability of his employment in a hazardous process or for ascertain his health status. The opinion of the Certifying Surgeon in such a case shall be final. The requisite fee for this medical examination shall be paid by the occupier.

4 (5) The worker taken away from employment in any process under subrule (2) may be employed again in the same process only after obtaining the Fitness Certificate from the Certifying Surgeon and after making entries to that effect in the Health Register.

5 (6) The worker required to undergo medical examination under these rules and for any medical survey conducted by or on behalf of the Central or the State Government shall not refuse to undergo such medical examination.

63 J. Occupational Health Centres

1 (1) In respect of any factory carrying on 'hazardous process' there shall be provide and maintained in good order an occupational Health Center with the services and facilities as per scale laid down hereunder:

2 (a) for factories employing up to 50 workers:

3 (i) the services of a Factory Medical Officer on retainer ship basis in his clinic to be notified by the occupier. He will carry out pre-employment and periodical medical examinations as stipulated in rule 63I and render medical assistance during an emergency.

4 (ii) a minimum of 5 persons trained in first aid procedures of whom at least one shall always be available during the working period.

5 (iii) a fully equipped first aid box in all the departments.

6 (b) for factories employing 51 to 200 workers:

7 (i) an Occupational Health Center having a room with a minimum floor area of 15 square metre with floors and walls made of smooth and impervious

i surface and with adequate illumination and ventilation as well as equipment as per the Schedule annexed to this rule ;

ii (ii) a part time factory Medical Officer shall be in overall charge of the Center who shall visit the factory at least twice in a week and whose services shall be readily available during medical emergencies.

iii (iii) one qualified and trained dressercumcompounder on duty throughout the working period ;
iv (iv) a fully equipped first aid box in all departments.
v (c) for factories employing above 200 workers:
vi (i) one fulltime Factory Medical Officer for factories employing up to 500 workers and one more Medical Officer for every additional 1000 workers or part thereof ;
vii (ii) an occupational Health Center having at least two rooms each with a minimum floor area of 15 square metre with floors and walls made of smooth and impervious surface and adequate illumination and ventilation as well as equipment as per the Schedule annexed to this rule;
viii (iii) there shall be one nurse, one dressercumcompounder and one sweepercumwardboy throughout the working period;
ix (iv) the Occupational Health Center shall be suitably equipped to manage medical emergencies.
x (2) The Factory Medical Officer required to be appointed under subrule (1) shall have qualifications included in Schedule to the Indian Medical Degrees Act, 1916 or in the Schedule to the Indian Medical Council Act, 1956 and possess a Certificate of Training in Industrial Health of a minimum of three months' duration recognised by the State Government:

Provided that:
i (i) a person possessing a Diploma in Industrial Health or its equivalent shall not be required to possess the certificate of training as aforesaid;
ii (ii) the Chief Inspector may, subject to such conditions as he may specify, grant exemption from the requirement of this subrule, if in his opinion a suitable person possessing the necessary qualification is not available for appointment;
iii (iii) in case of a person who has been working as a Factory Medical Officer for a period of not less than three years on the date of commencement of this rule, the Chief Inspector may, subject to the condition that the said person shall obtain the aforesaid certificate of training within a period of three years, relax the qualification.
iv (3) The syllabus of the course leading to the above certificate, and the organisations conducting the course shall be approved by the Directorate General of Factory advice

1 Service and Labour Institutes or the State Government in accordance with the guidelines issued by the Directorate General of Factory Advice Service and Labour Institutes.
2 (4) Within one month of the appointment of Factory Medical Officer, the occupier of the Factory shall furnish to the Chief Inspector the following particulars:
3 (a) Name and address of the Factory Medical Officer
4 (b) Qualifications
5 (c) Experience, if any, and
6 (d) The subrule under which appointed.

SCHEDULE
EQUIPMENT FOR OCCUPATIONAL HEALTH CENTRE IN FACTORIES

1	1.	A glazed sink with hot and cold water always available.
1	2.	A table with a smooth top of at least 180 cm x 105 cm.
1	3.	Means for sterilizing instruments.
1	4.	A couch.
1	5.	Two buckets or containers with closely fitting lids.
1	6.	A kettle and spirit stove or other suitable means of boiling water.
1	7.	One bottle of spiritus amoniac aromatics (120 ml.)
1	8.	Two medium sizes sponges.
1	9.	Two 'Kidney' trays.
1	10.	Four cakes of toilet soap, preferably antiseptic, soap.
1	11.	Two glass tumblers and two wine glasses.
1	12.	Two clinical thermometers.
1	13.	two tea spoons.

1	14.	two graduated (120 ml.) measuring glasses.
1	15.	One wash bottle (1000 cc) for washing eyes.
1	16.	One bottle (one litre) carbolic lotion in 20.
1	17.	Three chairs.
1	18.	One screen.
1	19.	One electric hand torch.

1	20.	An adequate supply of tetanus toxoid.
1	21.	Coramine liquid (60 ml.)
1	22.	Tablets antihistaminic, antispasmodic (25 each).
1	23.	Syringes with needles2 cc and 10 cc.
1	24.	Two needle holders, big and small.
1	25.	Suturing needles and materials.

1	26.	One pair of dressing forceps.
1	27.	One pair of dressing forceps.
1	28.	One scapel.
1	29.	One stethescope.
1	30.	Rubber bandagepressure bandage.
1	31.	Oxygen cylinder with necessary attachments.
1	32.	One blood pressure apparatus.
1	33.	One pateller Hammer.
1	34.	One Peakflow meter for lung function measurement.
1	35.	One stomach wash set.
1	36.	Any other equipment recommended by the Factory Medical Officer according to specific relating to manufacturing process.

1 37. In addition:
2 (a) For factories employing 51 to 200 workers:
3 1. four plain wooden splints of 900 mmx100mmx6mm;

4 2. four plain wooden splints of 350 mmx75mmx6mm;
5 3. two plain wooden splints of 250 mmx50mmx12mm;
6 4. one pair of artery forceps;
7 5. Injectionsmorphia, pethidine, atropine, adrenaline, coramine, novacan (200 each): and 6. one pair of surgical scissors;
8 (b) For factories employing above 200 workers:
9 1. Eight plain wooden splints of 900 mmx100mmx6mm;
10 2. Eight plain wooden splints of 350 mmx75mmx6mm;
11 3. Four plain wooden splints of 250mmx50mmx12mm;
12 4. Two pairs of artery forceps;

1 5. Injectionmorphia, pethidine, atropine, adrenaline, coramine, novocan (2 each) ; and
2 6. two pairs of surgical scissors.

63 K. Ambulance Van

1 (1) In every factory carrying on a 'hazardous process' there shall be provided and maintained in good condition, a suitably constructed ambulance van equipped with items as per subrule (2) and manned by a full time DrivercumMechanic and a Helper trained in first aid, for the purposes of sickness. The ambulance van shall not be used for purposes other than the purpose stipulated herein and will normally be stationed at or near the occupational Health Centre:

Provided that a factory employing less than 200 workers may make arrangements for procuring such facility at a short notice from a nearby hospital or other places to meet emergency.

1 (2) The ambulance van should have the following equipment:

2 (a) General: As wheeled stretcher with folding and adjusting devices ; with the head of the stretcher capable of being titled upward ;

fixed suction unit with equipment;
fixed oxygen supply with equipment;
pillow with case ; sheets ; blankets towels;
emesis bag, bed pan ; urinal ; glass;
(b) Safety equipment

flares with life of 30 minutes ; flood lights;
flash light ; fire extinguisher dry powder type;
insulated gauntlets.
(c) Emergency Care Equipment
(i) Resuscitation

portion suction unit ; portable oxygen unit;
bag valvemask, hand operated artificial;
ventilation unit;
airways ; mouth bags ; tracheetomyadapters;

short spine board ; I. V. fluids with Administration unit;
B. P. manometer ; Cugg ; stethoscope;
i (ii) Immobilization

long and short padded boards wire ladder splints;

triangular bandage ; long and short spine boards.
i (iii) Dressings

gauze pads 4"x4" universal dressing 10"x36";
roll of aluminium foils ; soft roller bandages 6"x5" Yards;
-adhesive tape in 3" roll ; safety pins ; bandage sheets ; burn sheet;
i (iv) Poisoning

syrup of Ipecae ; activated Charcoal prepacketed in doses ; snake bite kit;
drinking water;
i (v) Emergency medicines

as per requirement (under the advice of Medical Officer only)

63 L. Decontamination facilities

In every factory carrying out hazardous process the following provisions shall be made to meet an emergency:
(a) fully equipped first aid box;
(b) readily accessible means of water for washing by workers as well as for drenching of clothing of workers who have been contaminated with hazardous and corrosive substance ; and such means shall be as per the scale shown in the table below:

Number of person employed at any time		Number of drenching showers
i (i)	Upto 50 workers	2
i (ii)	Between 51 and 200 workers	2+1 for every additional 50 or part thereof
i (iii)	Between 201 and 500 workers	2+1 for every additional 50 or part thereof
i (iv)	501 workers and above.	8+1 for every additional 200 or part thereof.

(c) a sufficient number of eye wash bottles filled with distilled water or suitable liquid, kept in boxes or cupboards conveniently placed and clearly indicated by a distinctive sign which shall be easily available at all times.

63 M. Making available health records to workers

1 (1) The occupier of every factory carrying out a "hazardous process" shall make accessible the health record; including the record of worker's exposure to the hazardous process or, as the case may be, the medical records of any worker for his perusal under the following conditions:

(a) once in every six months or immediately after the medical examination whichever is earlier;
(b) if the Factory Medical Officer or the Certifying Surgeon, as the case may be, is of the opinion that the worker has manifest signs and symptoms of any noticeable disease as specified in the Third Schedule to the Act;
(c) if the worker leaves the employment;
(d) if any one of the following authorities, so direct:

the Chief Inspector of Factories;
the Health Authority of the central or State Government;
Commissioner of workmen's Compensation;
the Director General, Employees' State Insurance Corporation;
The Director, Employees State Insurance Corporation (Medical Benefits) ; and
the Director General, Factory Advice Service and labour Institute.

1 (2) A copy of the upto date health records including the record of workers exposure to hazardous process or, as the case may be, the medical records, shall be supplied to the worker on receipt of an application from him. Xray plates and other medical diagnostic reports may also be made available for reference to his medical practitioner.

63 N. Qualification etc. of Supervisors

1 (1) All persons who are required to supervise the handling of hazardous substances shall possess the following qualification and experience:
2 (a)
3 (i) a degree in Chemistry or Diploma in Chemical Engineering or Technology with five years’ experience; or
4 (ii) a Master's Degree in Chemistry or a degree in Chemical Engineering or Technology with two years’ experience;

The experience stipulated above shall be in process operation and maintenance in a chemical industry;
(b) the Chief Inspector may require the supervisor to undergo training in Health and Safety.
(2) The syllabus and duration of the above training and the organisations conducting the training shall be approved by the Director General, Factory Advice Service and Labour Institutes

or the State Government in accordance with guidelines issued by the Director general, Factory Advice Service and Labour Institutes.

63 O. Issue of guidelines

For the purposes of compliance with the requirements of subsections (1), (4) and (7) of section 41B or of section "41C the Chief Inspector may, if deemed necessary, issue guidelines from time to time to the occupiers of factories carrying on 'hazardous process'. Such guidelines may be based on national standards, Code of practice or recommendations of international bodies such as International Labour Organisation and World Health Organisation.

CHAPTER V

WASHING FACILITIES

64. Washing facilities

1 (1) Before April 1, 1951, there shall be provided and maintained in every factory for the use of the workers employed adequate and suitable facilities for washing, which shall include soap, where the work to be done is dirty and dangerous involving contact with lead, tar, etc. The facilities shall be conveniently accessible and shall be kept in a clean and orderly condition.

2 (2) Without prejudice to the generality of the foregoing provisions the washing facilities shall include:

3 (a) a trough with taps or jets at intervals of not less than two feet, or

4 (b) washbasins with taps attached thereto,

5 (c) taps on standpipes, or

6 (d) showers controlled by taps, or

7 (e) circular troughs of the fountain type, provided that the Inspector may, having regard to the needs and habits of the workers, fix the proportion in which the aforementioned types of facilities shall be installed.

8 (3)

9 (a) Every trough and basin shall have smooth, impervious surface and shall be fitted with a wastepipe and plug.

10 (b) The floor or ground under and in the immediate vicinity of every trough, tap, jet, washbasin, standpipe and shower shall be so laid or furnished as to provide a smooth, impervious surface and shall be adequately drained.

11 (c) For persons, whose work involves contact |with any injurious or noxious substance, there shall be at least one tap for every fifteen persons; and for persons employed at any one time in a factory, whose work does not involve such contact the number of taps shall be as follows:

No. of workers	No. of taps
Up to 20	1
21 to 35	2

36 to 50	3
51 to 150	4
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.

(d) 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.
(e) The water supply to the washing facilities shall be capable of yielding at least six gallons a day for such 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 a yield is not practicable he may by certificate in writing permit the supply of a smaller quantity not being less than one gallon per clay for every person employed in the factory.

FACILITIES FOR STORING CLOTHES
65. 33[Facilities for storing clothes
All Engineering Workshops, Iron and Steel Works, Chemical Factories, Oil Mills and Motor Garages, covered by the Act, and
i (i) employing 20 or more workers at a time and using power in the manufacturing process; or
ii (ii) employing 50 or more workers at a time and not using power in the manufacturing process shall provide facilities for storing, clothing not used during working hours. Such facilities shall include the provisions of separate rooms, pegs, lockers or such other arrangements for drying of wet clothes as may be approved by the Chief Inspector].

66. Firstaid appliance
The firstaid boxes or cupboards shall be distinctively marked with a red cross on a white ground and shall contain the following equipment's:
A. For factories in which mechanical power is used and in which the number of persons employed exceeds nineteen but does not exceed fiftyeach firstaid box or cupboard shall contain the following equipments:
(i) Twelve small sterilized dressings.
(ii) Six medium size sterilized dressings.

i (iii) Six large size sterilized dressings.
ii (iv) Six large size sterilized burn dressings.
iii (v) Six (½ oz.) packets sterilized cotton wool.

iv (vi) One (2 oz.) bottle containing a 2 per cent alcoholic solution of iodine.
v (vii) One (2 oz.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
vi (viii) One roll of adhesive plaster.
vii (ix) One snakebite lancet.
viii (x) One (1 oz.) bottle of potassium permanganate crystals.
ix (xi) One pair of scissors.
x (xii) One copy of the firstaid leaflet approved by the Chief Inspector of Factories.
xi B. For Factories employing more than fifty personseach firstaid box or cupboard shall contain the following equipments:
xii (i) Twentyfour small sterilized dressings.
xiii (ii) Twelve medium size sterilized dressings.
xiv (iii) Twelve large size sterilized dressings.
xv (iv) Twelve large size sterilized burn dressings.
xvi (v) Twelve (½ oz.) packets sterilized cotton wool.
xvii (vi) One snakebite lancet.
xviii (vii) One pair of scissors.
xix (viii) Two (1 oz.) bottle of potassium permanganate crystals.
xx (ix) One (4 oz.) bottle containing a 2 per cent alcoholic solution of iodine.
xxi (x) One (4 oz.) bottle of salvolatile having the dose and mode of administration indicated on the label.
xxii (xi) One copy of the firstaid leaflet approved by the Chief Inspector of Factories.
xxiii (xii) Twelve roller bandages 4 inches wide.
xxiv (xiii) Twelve roller bandages 2 inches wide.
xxv (xiv) Two rolls of adhesive plaster.
xxvi (xv) Six triangular bandages.
xxvii (xvi) Two packets of safety pins.
xxviii (xvii) A supply of suitable splints.
xxix (xviii) One tournequet:

Provided that items (xii) to (xviii) inclusive need not be included in the standard firstaid 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.
C. [34][The provisions of Section 45 shall not apply to the factories working on any day with less than:
(i) 20 workers with the aid of power ; or
(ii) 50 workers without the aid of power:

Provided that a First Aid Box having the minimum contents as indicated below is maintained in categories of factories mentioned in items (i) and (ii) above and a person trained in First Aid is readily available to give First Aid treatment:
(a) Six small sterilized dressings.
(b) Three medium size sterilized dressings.

(c) Three large size sterilized burn dressings.
(d) Three large size sterilized dressings.
(e) Three (1/4 oz.) packets sterilized cotton wool.
(f) One (1 oz.) bottle containing two per cent alcoholic solution of iodine.
(g) One (1 oz.) bottle of potassium permanganate crystals.
(h) One snake bite lancet.
(i) One pair of scissors.
(j) One roll of adhesive plaster.
(k) One copy of the First Aid leaflet approved by the Chief Inspector of Factories.]
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.

AMBULANCE ROOM

67. Ambulance room

1 (1) In every factory except in the case of factories registered before April 1, 1949, in whose case this rule shall be applicable from July 1, 1951, in which more than 500 workers are employed, there shall be provided and maintained in good order an ambulance room or dispensary.

2 (2) The ambulance room or dispensary shall be in charge of a registered medical practitioner assisted by at least one qualified nurse and such subordinate staff as the Chief Inspector may direct:

[35][Provided that the. Ordnance Factories of the Ministry of Defence which have their own hospitals near their premises with necessary arrangements for expeditious transport of injured workers to such hospitals shall be exempted from compliance with the requirement of a qualified nurse.]

1 (3) The ambulance room or dispensary shall be separate from the rest of the factory and shall be used only for the purpose of treatment and rest. It shall have a floor area of at least 250 square feet and smooth, hard and Impervious walls and floor and shall be adequately ventilated and lighted by both natural and artificial means. An adequate supply of wholesome drinking water shall be laid on and the room shall contain at least:

2 (i) a glazed sink with hot and cold water always available,

3 (ii) a table with a smooth top at least 6'x3'6",

4 (iii) means for sterilizing instruments and other articles,

5 (iv) a douche,

6 (v) two stretchers,

7 (vi) two buckets or containers with close fitting lids,

8 (vii) two rubber hot water bags,

9 (viii) a kettle and spirit stove or other suitable means of boiling water,

10 (ix) twelve plain wooden splints 36''x4"x¼",

11 (x) twelve plain wooden splints 14"x3''x¼",

12 (xi) six plain 'wooden splints 10''x2"x¼",

13 (xii) six wollen blankets,

14 (xiii) one pair artery forceps,

15 (xiv) one bottle of brandy,
16 (xv) two medium size sponges,
17 (xvi) six hand towels,
18 (xvii) four "kidney'' trays,
19 (xviii) four cakes carbolic soap,
20 (xix) two glass tumblers, and two wine glasses,
21 (xx) graduated medium glass with teaspoon,
22 (xxi) one eye bath,
23 (xxii) one bottle (21 lb. carbolic lotion 1 in 20),
24 (xxiii) three chairs,

i (xxiv) one screen,
ii (xxv) one electric hand torch,
iii (xxvi) four firstaid boxes or cupboards stocked to the standards prescribed under Section 45(1) of the Factories Act, 1948,
iv (xxvii) two clinical thermometers,
v (xxviii) an adequate supply of antitetanus serum,
vi (xxix) an armchair or a couch.
vii (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.
viii (5) A record of all cases of accident and sickness treated at the room shall be kept and produced to the Inspector or Certifying Surgeon when required.

[36][Explanation: In this rule 'registered medical practitioner' means a person holding a qualification granted by any of the authorities specified in the schedule to the Indian Medical Degrees Act, 1916 (Act No. VIII of 1916), or in the schedules to the Indian Medical Council Act, 1956.]

CANTEENS

68. 37[

1 (1) The occupier of every factory wherein more than two hundred and fifty workers are ordinarily employed on any one day and which is specified by the State Government in this behalf shall provide, within six months from the dare of specification, in or near the factory, an adequate canteen according to the standards prescribed in this rule. This rule shall come into force at once.
2 (2) The manager of every factory shall submit in triplicate, through the Inspector of Factories of the region concerned, the plans and site plan of the building to be constructed or adopted, for use as a canteen to the Chief Inspector of Factories for his approval.
3 (3) The canteen building or buildings shall be situated not less than fifty feet from any latrine/urinal, boiler house, coal stacks, ash dumps and any other source of dust, smoke or obnoxious fumes:

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

1 (4) The canteen building or buildings shall accommodate a dining hall, kitchen, store room, pantry and washing places, separately for workers and for utensils.

1 (5) In a canteen, 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.

2 (6) The doors and windows of a canteen building shall be of fly proof construction and shall allow adequate ventilation.

3 (7) The canteen shall be sufficiently lighted at all times when any person has access to it.

4 (8) In every canteen:

5 (a) all inside walls of rooms and all ceilings and passages and stair cases shall be limewashed or colourwashed at least once in each year or painted once in three years dating from the period when last limewashed or painted, as the case may be;

6 (b) all wood work shall be varnished or painted once in three years dating from the period when last varnished or painted;

7 (c) 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 limewashed once every four months.

1 (9) Records of dates on which limewashing, colour washing, varnishing or painting is carried out shall be maintained in Form No. 8.

2 (10) The precincts of the canteen shall be maintained in a clean sanitary condition. Waste water shall be carried away in suitably covered drains and shall not be allowed to accumulate so as to cause nuisance. Arrangements shall be made for the collection and disposal of garbage.

3 (11)

4 (a) The dining hall shall accommodate at least 20 per cent of the workers working at a time:

Provided that in any particular factory or in any particular class of factories, the Chief Inspector may with the approval of the State Government alter the percentage of workers to be accommodated in a canteen keeping in view the practice prevailing in the factory or in the industry where many workers may not be available to take advantage of the canteen facilities.

(b) The floor area of the dining hall, excluding the area occupied by 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 clause (a).

(c) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number. Washing places for women shall be separate and screened to secure privacy.

1 (12) Sufficient tables, chairs or benches shall be available for the number of dinners to be accommodated as prescribed in clause (a) of subrule (11).
2 (13) 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.
3 (14) The furniture, utensils and other equipments shall be maintained in a clean and hygienic condition. A service 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 the utensils and equipments.
4 (15) The food, drink and other items served in the canteen shall be sold on nonprofit basis, and the prices charged shall be subject to the approval of the Managing Committee:

Provided that where the canteen is managed by a Cooperative Society, exclusively of workers and registered under the Uttar Pradesh Cooperative Societies Act, 1965 such society may be allowed to include in the charges for the foodstuffs served, a profit up to 5 per cent on its working capital invested in running of the canteen.
1 (16) In computing the prices referred to in subrule (15), the following items of expenditure shall not be taken into consideration but will be borne by the occupier:
2 (a) the rent for the land and building;
3 (b) the depreciation and maintenance charges of the building and equipment provided for the canteen;
4 (c) the cost of purchase repairs and replacement of equipment including furniture, crockery, cutlery and utensils ;
5 (d) the water charges and expenses for providing lighting and ventilation;
6 (e) the interest on the amount spent on the provision and maintenance of the building furniture and equipment provided for the canteen;
7 (f) the cost of fuel required for cooking or heating foodstuffs or water; and
8 (g) the wages of the employees serving in the canteen and the cost of uniforms, if any, provided to them.
9 (17) The charge per portion of foodstuff, beverages and any other items served on the canteen shall be conspicuously displayed in the canteen in Hindi.
10 (18) 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.
11 (19) The accounts pertaining to the canteen, shall be audited, once every twelve months by registered accountants or auditors the balance sheet prepared by the said auditors shall be submitted to Canteen Managing Committee not later than two months after the closing of the audited accounts:

Provided that where the canteen is managed by a Cooperative Society, exclusively of workers, and registered under the UTTAR PRADESH Cooperative Societies Act, 1965 the accounts pertaining to such canteen may be audited in accordance with the provisions of the UTTAR PRADESH Cooperative Societies Act, 1965:
Provided further that the accounts pertaining to the canteens in a Government factory may be audited by its departmental Accounts Officers.

1 (20) The Manager shall appoint a Canteen Managing Committee which shall be consulted from time to time as to:
2 (a) The quality and quantity of foodstuff to be served in the canteen ;
3 (b) the arrangements of the menus ;
4 (c) times of meals in the canteen; and
5 (d) any other matter as may be directed by the Committee:

Provided that where the canteen is managed by a Cooperative Society, exclusively of workers and registered under the UTTAR PRADESH Cooperative Societies Act, 1965 it shall not be necessary to appoint a Canteen Managing Committee.
1 (21) The Canteen Managing Committee shall constitute of an equal number of persons nominated by the occupier and elected by 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.
2 (22) The Manager shall determine and supervise the procedure for elections to the Canteen Managing Committee.
3 (23) Canteen Managing Committee shall be dissolved two years after the last election, no account being taken of a byeelection.
4 (24) When a rest room made in accordance with rule made under Section 47 of the Act fulfils the requirements necessary for making of a canteen under this rule, no separate canteen need be provided.]

SHELTERS REST ROOMS AND LUNCH ROOMS
69. Shelters rest rooms and lunch rooms
In every factory (except in the case of factories registered before April 1, 1949, in whose case this rule shall be applicable from April 1, 1951), in which more than 150 workers are ordinarily employed per day, there shall be provided and maintained in good order a rest, shelter or rooms for use of workers. The shelter or rest room or lunch room shall conform to the following standard:
(a) The building shall be soundly constructed and all the walls and roof shall be of suitable heatresisting materials and shall be waterproof. The floor 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 level floor to the lowest part of the roof and there shall be at least 12 square feet of floor area for every person employed in the largest shift:

Provided that (1) 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 (2) in the case of factories in existence at the date of commencement of the Act, where it is impracticable owing to lack of space to provide 12 square feet of floor area for each person, such reduced floor area per person shall be provided as may be approved in writing by the Chief Inspector.

(c) Effective and suitable provision shall be made in every room for securing and maintaining adequate ventilation by the circulation of fresh air and there shall also be provided and maintained sufficient and suitable natural or artificial lighting.
(d) Every room shall be adequately furnished with chairs or benches with back rests.
(e) Sweepers shall be employed whose primary duty it is to keep the rooms, building and precincts thereof in a clean and tidy condition.

CRECHES

70. Creches

1 (1) In the case of factories registered before April 1, 1949, this rule shall be applicable from April 1, 1951.

2 (2) In other factories to which Section 48(1) is applicable, the creche shall conform to the following standards:

3 (a) The creches shall be conveniently accessible, to the mothers of the children accommodated therein and so far, as is reasonably practicable it shall not be situated in close proximity to any part of the factory where obnoxious fumes, dust or smell are given off or in which excessively noisy processes are carried on.

4 (b) The building in which the creche is situated shall be soundly constructed and all the walls and roof shall be of suitable heatresisting materials and shall be waterproof. The floor of the creche shall be so laid or finished as to provide a smooth impervious surface.

5 (c) The height of the rooms in the building shall be not less than 12 feet from the floor to the lowest part of the roof and there shall be not less than 20 square feet of floor area for each child to be accommodated.

6 (d) Effective and suitable provisions shall be made in every part of the creche for securing and maintaining adequate ventilation by the circulation of fresh air.

7 (e) 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, at least one chair or equivalent seating accommodation for the use of each mother

while she is feeding or attending to her child and a sufficient supply of suitable toys for the elder children.
(f) A suitably fenced and shady open air playground shall be provided for the elder children:

Provided that the Chief Inspector may by order in writing exempt any factory from compliance with this clause if he is satisfied that there is not sufficient space available for the provisions of such playground.
(g) There shall be in or adjoining the creche a suitable washroom for the washing of the children and their clothing.

The washroom shall conform to the following standards:

i (i) The floor and internal walls of the room to a height of 3 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.

ii (ii) 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.

iii (iii) An adequate supply of soap and clean towels shall be available to a mother at all times when her child is in the creche.

iv (h) At least half a pint of clean pure milk shall be provided free of cost for each child on every day, it is accommodated in the creche and the mother for such a child shall be allowed in the course of her daily work two intervals of at least half an hour to feed the child. For children, who do not require milk an adequate supply of wholesome refreshment shall be provided.

v (i) Clothes for creche staff: The creche staff shall be provided with suitable clean clothes for use while on duty in the creche.

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

CHAPTER VI

COMPENSATORY HOLIDAYS

71. Spacing of compulsory holidays

Except in the case of workers whose services are being terminated, in whose case the compensatory holiday, if due, may be allowed at one stretch, the holidays allowed under

subsection (i) of Section 53 of the Act shall be so spaced that not more than two holidays are given in one week.

72. Notice regarding compensatory holidays and subsequent changes

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 month the holidays were lost and those to be allowed during the following two 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.

73. Discharge or dismissal and compensatory holidays

Any compensatory holiday or holidays to which a worker is entitled shall be given to him before he is discharged or dismissed and shall not be reckoned as part of any period of notice required to be given before discharge or dismissal. The compensatory holidays will be with pay in cases of monthly paid workers and those who are otherwise entitled to wages on the corresponding rest day which is being compensated.

74. Weekly holidays and attendance register

1 (1) The Manager shall enter the details of weekly holidays lost and compensated for in the prescribed attendance register in Form Nos. 12 and 13:

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 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.

1 (2) The register maintained under subrule (1) shall be preserved for a period of three years after the last entry in it and shall be produced before the Inspector on demand.

OVERLAPPING SHIFTS

75. 38[Deleted]

OVERTIME

76. 39[

1 (1) For the purposes of Section 59, the cash equivalent to the advantage accruing through the concessional sale to a worker of foodgrains and other articles during any wage period shall be computed by deducting:

2 (a) the total amount of the price payable at the concessional rates for the maximum quantity of foodgrains admissible to a standard family, as defined in Explanation 1 to subsection (4) of the said section;

(b) from the total amount of the price payable for the same quantity of foodgrains and other articles at the average market rates which shall be determined either on the basis of the retail prices for such foodgrains and other articles prevailing in the nearest market or according to the rates published by the Labour Commissioner, for the different weeks of the wage period, in the table relating to the Consumers Price Index Number for working classes at Kanpur.

(2) The computation of the cash equivalent to such advantage in the manner indicated in subrule (1) above, shall be made for every period:

Provided that subrules (1) and (2) shall not apply to any Federal Railway factory whose alternative method of computation has been approved by the State Government.

1 (3) The Manager of every factory in which workers are exempted under Section 64 or 65 from the provisions of Section 51 or 54 shall maintain at overtime register in Form No. 10.

2 (4)

3 (a) The register shall be correctly maintained and entries made daily in respect of each worker working overtime and shall be preserved for a period of three years after the date of last entry.

4 (b) The register prescribed under subrule (1) shall be produced on demand by an Inspector irrespective of the fact whether the Manager was present in the factory or not during inspection.

5 (5) 40[The exact period of the intended overtime work and the date and the time of commencement shall be entered in overtime slips, in duplicate, a copy of which signed by the Manager or by a person duly authorised by him, shall be given to the worker employed on such overtime before the commencement of the same. Time of completion of overtime work shall also be entered in the said slips by the Manager or his nominee immediately after the overtime work ends.]

NOTICE OF PERIOD FOR WORK FOR ADULTS

77.

The notice prescribed under Section 61 of the Act shall be in Form No. 11.

REGISTER OF ADULT WORKERS

78.

1 (1) The Manager of every factory shall keep, legibly written in ink and, if he so desires, separately by departments, a register of workers in Form No. 12 for adults, showing the dates, whether Sundays or week days on which the factory or any department thereof is closed and its employees are not working, the hours of work on each day of all the persons working in the factory, the time of commencing work, the rest period, the time of ending work, the days of absence and nature of employment of each

1 person. Entries relating to presence or otherwise of all workers shall be posted group wise in the register within four hours of the starting time of each working period of the factory, except on days when workers have been called to work on weekly holidays fixed under Section 52, when such entries shall be made within two hours but the name of each worker shall invariably be shown on the register before he or she is allowed to work in the factory on any day.

2 (2) The Manager shall be responsible for the production, on demand of the register, irrespective of the fact whether he (the Manager) is present or not in the factory during an inspection.

3 (3) If a Manager prefers, he may maintain the separate registers in two parts one for each half of the month.

4 (4) The registers shall be preserved for three years after the close of the year to which they relate.

41[PERSONS HOLDING POSITIONS OF SUPERVISION OR MANAGEMENT

79.

1 (1) The following persons in Factories, other than sugar factories, shall be deemed to hold positions of supervision or management, provided they are not required to perform manual labour as regular part of their duties:

2 (i) The Manager,

3 (ii) The Assistant Manager,

4 (iii) Mill Secretary,

5 (iv) Deputy Mill Secretary,

6 (v) Labour Officer,

7 (vi) Security Officer,

8 (vii) Heads of Technical Department,

9 (viii) Engineers,

10 (ix) Assistant Engineers,

11 (x) Foreman ;

12 (xi) Assistant Foreman,

13 (xii) Chargeman;

14 (xiii) Overseers;

15 (xiv) Jobbers in Textile Factories;
16 (xv) Supervisors;
17 (xvi) Shift Officer;

i (xvii) Shift Incharge
ii (xviii) Paper makers;
iii (xix) Head Storekeepers provided they are employed solely in a supervisory capacity;
iv (xx) Any other person, who in the opinion of the State Government holds a position of supervision or management and is so declared by it in writing.
v (2) In sugar factories, the following persons shall be deemed to hold positions of supervision or management:
vi (i) The General Manager,
vii (ii) The Manager,
viii (iii) The Mill Secretary,
ix (iv) The Deputy Mill Secretary,
x (v) The Cane. Manager,
xi (vi) The Cane Superintendent, where there is no Cane Manager,
xii (vii) The Chief Chemist,
xiii (viii) The Labour Welfare Officer,
xiv (ix) The Chief Engineer,
xv (x) The Secretary to the Managing Agent or the Personal Assistant to the General Manager,
xvi (xi) The Cane Development Officer,
xvii (xii) Heads of Commercial Department, like accounts, purchase, store, legal catering, etc.,
xviii (xiii) Any person who, in the opinion of the State Government, holds a position of supervision or management and is so declared by it in writing.

80.
The following persons shall be deemed to hold confidential positions in a Factory:
i (i) Stenographers,
ii (ii) Personal Assistants,
iii (iii) Personal Secretaries,
iv (iv) Office Superintendent,
v (v) Head Clerk, where there is no Office Superintendent,
vi (vi) Head Munim where there is no Office Superintendent or Head Clerk,
vii (vii) Head Accountant,

i (viii) Head Cashier,
ii (ix) Cashier,
iii (x) Head Timekeeper,
iv (xi) Telephone Operator,
v (xii) Receptionist,

vi (xiii) Any other person, who in the opinion of the State Government, holds a confidential position and is so declared in writing by it.

81. A list of all the workers in a factory to whom the provisions of Section 64(1) apply, shall be kept in Form No. 6 in the Inspection Book, after it has been approved by the Inspector.

URGENT REPAIRS

82.

Subject to the conditions stated below the work of adult male workers employed on urgent repairs in any factory shall be exempt from the provisions of Sections 51, 52, 54, 55 and 56.

Conditions

i (i) When the cast of urgent repairs has arisen, a notice shall be sent within 24 hours of the commencement of the employment of persons employed to carry out the said repairs to the inspector of factories of the region concerned in writing stating the names of persons employed, the precise nature of work and the exact time of commencement of such works. A copy of the said notice shall be affixed at the place mentioned in Section 108(2) before the workers are put on urgent repairs.

ii (ii) A rest period of one hour shall be given as work permits during the working hours.

iii (iii) No workers shall be employed for more than 14 consecutive days without a holiday of 24 consecutive hours.

iv (iv) All the workers working in excess of nine hours a day or 48 hours a week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate of pay in accordance with the provision of subsection (1) of Section 59 of the Act.

v (v) Every worker shall be given compensatory holiday in accordance with Section 53 of the Act.

Note: For the purpose of this rule expression "urgent repairs" means (a) any repair to the main driving machinery, and plant necessary to prevent or remedy a breakdown that may cause or has caused, a stoppage of the whole or part of manufacturing process or (b) repairs that are of such nature that failure to execute them would cause a stoppage or serious interruption of a public service:

Provided that periodical overhaul or repairs to any machinery in a factory shall not be deemed to be "Urgent Repairs".

LOADING AND UNLOADING OF RAILWAY WAGONS AND CERTAIN CATEGORIES OF CLERICAL STAFF

83.

The work of male adult workers engaged on loading and unloading of railway wagons, lorries or trucks and that of clerical workers employed in connection with the urgent work of stock taking and the preparation of returns the submission of which could not be foreseen shall be exempt from the provisions of Sections 51, 52, 54, 55 and 56 of the Act, Subject to the following conditions:

i (i) Where possible a message by telegram or telephone shall be sent immediately after such work has arisen, followed by a notice which shall be sent, within 24 hours of the commencement of the employment of the workers employed to carry out such work, to the

Inspector of Factories of the region concerned in writing stating the names of the workers employed, the precise nature of work and the exact time of commencement of such work. A copy of the said notice shall be affixed at the place mentioned in Section 108(2) before the workers are put on any such work.

ii (ii) Total daily hours of work shall not exceed 10, the total spread over being limited to 12 hours in any one day and total hours of overtime work shall not exceed 50 in any quarter.

iii (iii) The weekly hours of work shall not exceed 60.

iv (iv) A rest period of one hour shall be given as work permits during the working hours.

v (v) No worker shall be employed for such work for more than 14 consecutive days without a holiday of 24 consecutive hours.

vi (vi) All the workers working in excess of 9 hours per day or 48 hours per week shall be paid in respect of such additional hours at the rate of twice the ordinary rate of wages in accordance with the provisions of subsection (1) of Section 59 of the Act.

vii (vii) Every worker shall be given a compensatory holiday in accordance with Section 53 of the Act.]

MAINTENANCE STAFF

84.

(a) The work of the following classes of adult workers shall be deemed to be of the nature referred to in clause (b) of subsection (2) of Section. 64 of the Act, and such workers shall be exempt from the provisions of the sections of the Act mentioned against each:

(i) Engine drivers, firemen, coalmen, oilmen, rope and beltmen, fitters, welders, electricians, machine men, blacksmith, carpenters, masons and their assistants when employed solely for the purpose of maintenance of a power plant and transmission machinery of a factory, from the provisions of Sections 51, 55 and 56.

i (ii) Workers employed solely in water supply lighting, ventilating, air conditioning, humidifying, fire extinguishing and the cleaning of blow room flues, from the provisions of Section 56.

Explanation: "Maintenance" for the purpose of this rule means the upkeep and repairs to power plant, transmission machinery, electric motors and their switchgears and cables, but shall not include the repairs of adjustment of manufacturing machines and their ropes and belts.

(b) An exemption under this Rule shall be subject to the following conditions:

(i) A period of rest of one hour shall be given during each shift.

(ii) The total hours of overtime work shall not exceed 50 in any one quarter, the total spread over being limited to 12 hours in any one day.

(iii) All workers working in excess of 48 hours a week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate of wages in accordance with the provisions of subsection (1) of Section 59 of the Act.

(iv) The periods of work of maintenance staff shall be indicated before hand in Form No. 11.

FOUNDRIES

85.

The work of adult male workers employed in foundries on the cupola and casting on the day cupola is worked, shall be deemed to be of the nature referred to in clause (b) of subsection (2) of Section 64 and such workers shall be exempt from the provisions of Sections 51, 54, 55 and 56 subject to the following conditions:

i (i) A notice giving the names of such workers as are employed, showing their working hours on the day on which the exemption is availed of, should be displayed before the work beyond the hours fixed in Form No. 11 is commenced and a copy of the same should be sent to the Chief Inspector and the Inspector concerned.

ii (ii) Total daily hours of work shall not exceed 10 and the total hours of overtime work shall not exceed 50 in any one quarter, the total, spread over being limited to twelve hours in any one day.

iii (iii) A minimum interval of rest of half an hour shall be given at any time during the working hours.

iv (iv) The weekly hours shall not exceed 52.

v (v) All workers working excess of 9 hours a week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate of pay in accordance with the provisions of subsection (1) of Section 59 of the Act.

BRASSWARE FACTORIES

85A.

The work of male adult workers employed in Brassware Factories on melting moulding and rolling process on the day the nonferrous metal or alloy is melted in crucibles, shall be deemed to be of the nature referred to in clause (b) of subsection (2) of Section 64 and the provisions of Sections 51, 54, 55 and 56 shall not apply to such worker's subject to the following conditions:

i (i) The notice giving the names of such workers as are employed and showing their working hours on the day on which the exemption is availed on by the occupier of the factory should be displayed before the work beyond the hours fixed in Form No. 11 is commenced and a copy of the same should be sent to the Chief Inspector and the Inspector concerned.

ii (ii) Total daily hours of work shall not exceed 10 and the total hours of overtime work shall not exceed 50 in any one quarter, the total spread over being limited to 12 hours on any one day.

iii (iii) An interval of rest of at least half an hour shall be given at any time during the working hours.

iv (iv) The weekly hours of work shall not exceed 52.

v (v) All workers working in excess of 9 hours a day and 48 hours a week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate of pay in accordance with the provisions of subsection (1) of Section 59.

SHELLAC FACTORIES

85B.

The work of adult workers employed in filtering Shellac in Bhattaghar in Shellac factories shall be deemed to be of the nature referred to in clause (c) of subsection (2) of Section 64 and shall

be exempt from the provisions of Section 55, subject to the conditions that facilities for bathing and taking refreshment shall be allowed.

CONTINUOUS PROCESS FACTORIES

86. 42[

The following classes of work in the under mentioned classes of factories shall be deemed to be of the nature referred to in clause (d) of subsection (2) of Section 64 of the Act and shall be exempt from the provisions of Sections 51, 52, 54, 55 and 56 of the Act subject to the conditions stated below:

Classes of Factories		Class of work	
i	(i)	Electrical Generating stations and Distributing substations.	Work of male adult workers attending to boilers turbines, engines, generators, motors, boosters, switchboards, transmission machinery, cables, batteries and auxiliaries.

i	(ii)	Waterworks and water pumping stations.	Work of male adult workers attending to boilers, engines, motors, switchboards, pumps and auxiliaries.
i	(iii)	Sugar Factories and refineries working on the vacuum pan system	Work of male adult workers attending to:
i	(i) boilers, engines, motors, switchboards and pumps;		
i	(ii) handling and crushing cane and handling gur to melting blowups ;		
i	(iii) engaged in filtration, clarification and crystallization and cane juice and gur liquor;		
i	(iv) engaged in evaporation and concentration of cane juice and gur liquor;		
i	(v) engaged in curing the massacuite ;		
i	(vi) engaged in drying, crushing and bagging of sugar;		

i (vii) engaged in the burning of lime stone and sulphur, for production of carbon dioxide and sulphur dioxide gases, for the clarification of cane juice.		
i (iv)	Distilleries	The work of male adult workers attending to:
(a) boilers, engines, motors, switchboards and pumps;		
(b) diffusion of mahua ;		
(c) working of molasses ;		
(d) fermentation of wash ;		
(e) yeast propagation;		
distillation process.		
i (v)	Breweries	The work of male adult workers attending to:
(a) boilers, engines and pumps ;		
(b) melting, coppers, hopback, coolers and refrigerators		
i (vi)	Rosin and Turpentine	The work of male adult workers attending to:

(a) boilers, engines, pumps, motors and switchboard;		
(b) distillation of rosin;		
(c) refining of turpentine;		
(d) filtration and casting of rosin.		
i (vii)	Ice factories	The work of male adult workers attending to:
(a) boilers and icemaking machinery;		
(b) receptacles for the production of ice.		
i (viii)	Chemical works	The work of male adult workers attending to:
(a) boilers, pumps and compressors ;		
(b) the manufacture of sulphuric, nitric and hydrochloric acids, ammonia, magnesium sulphate, alum, hyposulphite and sulphite of soda, sodium sulphate, sodium sulphide, nitrate of potash, alumina and bichromate of potash.		
i (ix)	Distillation of sandal wood and essential oils.	The work of male adult workers attending to boilers and distillation processes.
i (x)	Plate and sheet glass factories and glass bangles factories.	The work of the following classes of male adult workers:

(a) gas producers, window and plate glass machinemen, tankmen, sheetglass carriers and lift attendants and workers employed on glass blowing machines in tank and pot furnaces when run in conjunction with the glass furnace;		
(b) firemen, engine and boiler attendants		
i (xi)	Strawboards factories.	The work of male adult workers attending to:
(a) boilers, engines, turbines, generators, motors, switchboards and pumps;		
(b) cooking, milling, beating and strawboard machines.		
i (xii)	Kiln, seasoning of timber and bobbin stone enamelling.	The work of male adult workers attending to:

(a) boilers, engines, pumps, motors, dynamos and switchboards;		
(b) Timber, seasoning Kiln.		
(c) stoneenamelling chamber.		
i (xiii)	Vegetable oil Hydrogenation factories.	The work of male adult workers attending to boilers, generators, motors, transformers, switchboards and water softening plants;
(a) refining, bleaching, distillation (deodorization) and hardening plants, soldering, labelling, packing and storing of containers ;		

(b) the production and compression of hydrogen and oxygen gases ;		
i (xiv)	Production and or compression of oxygen and acetylene gases.	The work of male adult workers attending to generator and compressors.
i (xv)	Soap factories	The work of male adult workers attending to:
(a) boilers, generators, motors, switchboards; and		
(b) boiling, scrutching and framing.		
i (xvi)	Paper mills	The work of male adult workers attending to:
(a) boilers, engines, turbines, generators, motors, switchboards and pumps;		
(b) cooking, milling, beating, strawboard and paper manufacturing machines.		
i (xvii)	Electrical steel smelting furnaces	Work of male adult workers attending to transformers, electrode controls, hydraulic pumps, scrap cutting and transporting, furnacemen, ladenmen, pitside workers and workers attending to moulds for ingot.
i (xviii)	Rolling mills	Ingot transporters, furnacemen, furnace coolies, tongsmen working at various rolling (such as roughers and loopers) workers on the cooling bed, motormen, straighteners, workers engaged in stacking of finished material and attendants of machinery

i (xix)	Starch factories	Work of male adult workers engaged in the manufacture of starch and its by products, except those employed in the engineering departments and workshops.
i (xx)	Glue and Gelatine mills.	Work of male adult workers engaged in the manufacture of glue and gelatine including soaking, boiling, spreading, chopping and drying.
i (xxi)	Biscuit factories	Work of male adult workers engaged in the mixing of the dough, baking, drying, and packing biscuits
i (xxii)	Cement factories	The work of male adult workers:
(a) attending to boilers, engines, motors, switchboards and pumps ;		
(b) engaged in preparation of raw materials, cement mills, working in conjunction with the continuous kilns, cement grinding, packing and storing.		
i (xxiii)	Cold storage factories.	Work of male adult workers attending to motors and compressors.
(xxiiiA)	Capacitors making factories.	Work of male adult workers engaged in Anodic, forming of Aluminium foils and other connected processes.
i (xxiv)	All factories	Work of male adult workers attending boilers.
i (xxv)	Manufacture of Audio-Video magnetic tape	The work of male adult worker:
(a) Engaged in operations and processes of mixing, coating, calendaring, and utility services; and		

(b) Attending to planetary mixing machine, high speed dissolver, puddle mixer, media mill tank mixer, sand mill, filter unit, coating machine, calendaring machine, air compressor, air handling unit, chilling plant and cooling towers.		
i (xxvi)	Manufacture of fruit based beverages	The work of male adult workers engaged in processes of the:

(a) Raw material section;		
(b) Processing section;		
(c) Packaging section; and		
(d) Work of male adult workers attending to		
Weighing machine, fork lift for material handling, battery, charging machine, D.M. plant, pulper pulp pressuriser and cooler, pulp and syrup tanks, blending tank, pasturiser, ready juice tank, homogenizer, filling and packing machines, shrink wrapping, tray packing, oil packing and air blower and control boards.		
i (xxvii)	Manufacture of polyester filament yarn	The work of male adult workers:
(a) Engaged in operations and processes of:		
Polymerization;		
Spinning and Take-up;		

Draw twisting/drawtexurizing		
(b) Attending to boiler, diesel generator set, heat transfer media, compressor used in processes specified in (a) above.		
i (xxviii)	Manufacture of Television monitors	The work of male adult worker:
(a) Engaged in operations and processes of;		
Shadow/Panel Mark Assembly; Stabilizing and Baking; Black matrix; Screen Coating; Aluminizing; Panel Baking; Internal Magnetic Shield and Funnel Preparation; Frit Sealing; Gun Sealing; Exhaust; and Aging Processes.		
(b) Attending to Annealing furnace; Blackening, furnace; Mask washing machine; Spot welding machine; Phospher recovery unit; Frit sealing/furnace; Exhaust furnace; Frit mixer; Blending and taping machine; Scrubbers; Heat exchangers; Air handing units; Pumps; Motors and Chillers.		

i (xxix)	Manufacture of Polyster film/polypropylene film rolls	The work of male adult workers:
(a) Engaged in operations and processes of: Batch Mixing; Crystallizing and Drying; Extrusion, Casting and Primary Gauzing; Orientation of Molecule in Machine Direction/Transverse Direction; Secondary Gauge System; Winding; Film Trim Cutting and Gauge Monitoring; Winding of Film on Steel Core; Slitting and Packing.		

(b) Attending to: Feeder, Mixer; Crystallizer; Dryer; Extruder; Casting and Primary Gauge Machine; Machine Direction Orientater; Transverse Direction; Secondary Gauge System; Winding; Film Trim Cutting and Gauge Monitoring; Winding of Film on Steel Core; Slitting and Packing.		
i (xxx)	Manufacture of CD-R and CD-RW	The work of male adult workers:
(a) engaged in operations and processes of: Mixing; Moulding; Dye Coating; Image Printing; Drying; Sputtering; Lacquer Dispensing; and UV Curing.		
(b) Attending to:		
Plannery; Tere mixing; High speed dissolver; Puddle mixture; Media mill; Tank mixer; Sand mill filter unit; Coating machine; Calendering machine; Air compressors; Air handling units; Chilling plant; D.G. sets; and Cooling towers.		
i (xxxi)	Manufacture of Refrigerators	The work of male adult workers:
(a) engaged in Vacuum Forming Process, PU Foaming Process, Assembly Line, Brazing and Cold Roll Forgoing (CRF) operations.		
(b) Attending to Vacuum Forming Process, PU Foaming Process, Assembly Line, Brazing Machine, Pick and Place Machine, Paint booths, Coolers/Chiller, air compressors,		

Cooling Towers, Diesel, Generating sets, Cold Roll Forgoing (CRF) Machine and Press Machines.

i (xxxii)	Manufacture of Washing Machine	The work of male adult workers:
(a) Engaged in Injection Moulding Operations, Cold Roll Forgoing (CRF) and assembly operation.		
(b) Attending to Moulding Machine, Pick and Place Machine, Curing Machine, Coolers/Chiller, Air Compressor, heat exchanger, Paint booths, Diesel.		

Conditions:

i (i) Such workers shall be employed on three eighthour shifts system. An interval for rest of half an hour shall be allowed to every such worker some time during each shift he is required to work.

ii (ii) No such workers shall be employed for more than fourteen consecutive days without a holiday of twentyfour consecutive hours.

iii (iii) The total daily hours of work shall not exceed 10 with a spread over of 12 hours except in an emergency when it is necessary to employ a shift worker for more than 8 hours in any day to enable him to work whole or part of the subsequent shift. In no case shall the worker be employed for more than 16 hours in a period of 24 hours from the commencement of work, and the total number of hours of overtime shall also not exceed 50 in any quarter:

Provided that where subsequent shift or any part thereof during which a shift worker is employed as aforesaid falls on a weekly holiday, compensatory period of rest shall also be given on a day which is neither a festival nor a weekly holiday. Also when a worker is so employed the Manager shall within seven days inform the Inspector of Form No. 10 and shall intimate the date of compensatory period of rest to be given. The Manager shall also enter the period of extra time worked and the extent of compensatory period of rest in the respective registers and shall note therein the time of commencement of such extra time work before its commencement.

i (iv) The system of shifts shall be approved by an Inspector before enforcement.

ii (v) All workers working in excess of 9 hours a day or 48 hours a week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate of any in accordance with the provisions of subsection (1) of Section 59 of the Act.

iii (vi) Every worker shall be given a compensatory holiday in accordance with Section 53 of the Act.]

WOOD PRODUCTS (CUTCH AND KATHA) FACTORIES

87.

The work of adult male workers employed on engines, boilers, motors, switch boards, pumps, mechanical sawing and chipping, autoclaves, evaporation, refrigeration, Alteration and drying in wood product factories shall be deemed to be of the nature referred to in clause (d) of subsection (2) of Section 64 of the Act and shall be exempt from the provisions of Sections 51, 54 and 56 subject to the conditions stated below:

i (i) The total daily hours of work shall not exceed 10 with a spread over of 12 hours except in an emergency when it is necessary to employ a shift worker for more than 8 hours in any day to enable him to work the whole or part of the subsequent shift. In no case shall the worker be employed for more than 16 hours in a period of 24 hours from the commencement of work and the total number of hours of overtime shall also not exceed 50 in any quarter:

Provided that where subsequent shift or any part thereof during which a shift worker is employed as aforesaid falls on a weekly holiday, compensatory period of rest shall also be given.

Also when a worker is so employed the Manager shall within seven days inform the Inspector of Factories in Form No. 10 and shall intimate the date of compensatory period of rest to be given. The Manager shall also enter the period of extra time worked and the extent of compensatory. period of rest in the respective register and shall note therein the time of commencement of such extra time work before its commencement.

i (ii) All the workers working in excess of 9 hours a day or 48 hours a week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate of pay in accordance with the provisions of subsection (1) of Section 59 of the Act.

GLASS WORKS

88.

The work of all adult workers, employed in glass factories on all work and processes from the mixing of the batch to the removal of the manufactured glassware from the lehrs or annealing chamber, shall be deemed to be of the nature referred to in clause (d) of subsection (2) of Section 64 of the Act and shall be exempt from the provisions of Sections 51 and 52 subject to the conditions stated below:

Conditions

i (i) The daily hours of work shall not exceed 8 and the weekly hours of work 56. The total hours of overtime shall not exceed 50 in any one quarter.

ii (ii) No persons shall be employed for more than 14 consecutive days4 without a holiday of 24 consecutive hours.

i (iii) All workers working in excess of 18 hours per week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate of pay in accordance with the provisions of subsection (i) of Section 59 of the Act.

ii (iv) Every worker shall be given a compensatory holiday in accordance with Section 53 of the Act.

VEGETABLE OIL MILLS

89.

The work of adult male workers employed on manufacturing processes in mills, shall be deemed to be of the nature referred to in clause (d) of subsection (2) of Section 64 of the Act and shall be exempt from the provisions of Section 55 of the Act subject to the conditions stated below:

Conditions

i (i) The shift system shall be approved by an Inspector of Factories.

ii (ii) A rest period of halfanhour shall be given to each worker during each shift.

SIZING, DYEING, BLEACHING AND CLOTH PRINTING

90.

The work of adult workers employed on the process of keirboiling, chemicking, scouring, washing, jig and yarn dyeing, padding, drying, mercerising, printing, colour mixing, steaming, singeing, edging, calendering, sizing and size mixing, dyeing and bleaching shall be deemed to be of the nature referred to in clause (d) of subsection (2) of Section 64 of the Act, and shall be exempt from the provisions of Sections 51 and 55 subject to the following conditions:

i (i) The daily hours of work shall not exceed 9 and the weekly hours of work 54. A rest interval of half an hour shall be given during each shift. The total hours of overtime shall not exceed 50 in any quarter.

ii (ii) All workers working in excess of 48 hours per week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate of pay in accordance with the provisions of subsection (1) of Section 59 of the Act.

TANNERIES

91.

The work of adult workers employed in soaking, liming, washing, bathing, tanning and drying of hides, kips and skins in tanneries shall be deemed to be of the nature referred to in clause (d) of subsection (2) of Section 64 of the Act, and shall be exempt from Sections 51 and 52 of the Act subject to the conditions stated below:

Conditions

i (i) No worker shall be employed for more than 4 hours on any Sunday.

i (ii) No worker shall be employed for more than 14 consecutive days without a holiday of 24 consecutive hours.

ii (iii) The total hours of overtime work shall not exceed 50 in any one quarter.

iii (iv) All workers working in excess of 48 hours per week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate of the pay in accordance with the provisions of subsection (1) of Section 59 of the Act.

iv (v) Every worker shall be given a compensatory holiday in accordance with Section 53 of the Act.

PREPARATION PACKING AND DESPATCH OF SERUM AND VACCINE

92.

The work of adult workers employed in the preparation, packing and despatch of serum and vaccine in factories manufacturing serum and vaccine shall be deemed to be of the nature

referred to in clause (e) of sub-section (2) of Section 64 of the Act, and shall be exempt from the provisions of Section 52 subject to the following conditions:

i (i) No such worker shall be employed for more than 14 consecutive days without a holiday of 24 consecutive hours.

ii (ii) Every worker shall be given a compensatory holiday in accordance with Section 53 of the Act.

DAIRIES

93.

The work of adult male workers employed in dairy factories other than those engaged in printing and in the manufacturing of containers for milk, cream, cheese and butter shall be deemed to be of the nature referred to in clause (e) of subsection (2) of Section 64 of the Act, and shall be exempt from Section 52 subject to the conditions stated below:

Conditions

i (i) No such worker shall be employed for more than 8 hours on Sunday.

ii (ii) No such worker shall be employed for more than 14 consecutive days without a holiday of 24 consecutive hours.

iii (iii) Every such worker shall be given a compensatory holiday in accordance with Section 53 of the Act.

RICE MILLS

94.

The work of adult workers employed in moving the railway wagons and on drying platforms in the rice mills shall be deemed to be of the nature referred to in class (f) of subsection (2) of Section 64 of the Act, and shall be exempt from the provisions of Section 52 subject to the conditions stated below:

Conditions

i (i) No such worker shall be employed for more than 14 consecutive days without a holiday of 24 consecutive hours.

ii (ii) Every worker shall be given a compensatory holiday in accordance with Section 53 of the Act.

OPIUM FACTORIES

95.

The work of adult workers employed in opium factories and engaged in removing opium from railway wagons to the import shed, from April 1 to June 30, in each year, shall be deemed to be of the nature referred to in clause (f) of subsection (2) of Section 64 of the Act, and shall be exempt from the provisions of Section 52 of the Act subject to the conditions stated below:

Conditions

i (i) No worker shall be employed for more than 14 consecutive days without a holiday of 24 consecutive hours.

ii (ii) Every worker shall be given a compensatory holiday in accordance with Section 53 of the Act.

TEA FACTORIES

96.

The work of adult workers attending u; boilers or engines or engaged in the process of rolling, fermenting, firing, sieving, stewing, picking and packing in factories situated on, and used solely for the purposes of tea plantations shall be deemed to be of the nature referred to in clause (g) of subsection (2) of Section 64 of the Act, and shall be exempt from the provisions of Sections 52 and 55 from April 1 to November 30 each year, provided that the following conditions are observed:

Conditions

i (i) The number of workers employed on a particular piece of work shall always be at least 25 per cent greater than the number actually required to do the work at any given time.

ii (ii) No worker shall be employed for more than 14 consecutive days without a holiday of 24 consecutive hours.

iii (iii) A rest interval of halfanhour shall be given during the working hours.

iv (iv) Every worker shall be given a compensatory holiday in accordance with Section 53 of the Act.

KHANDSARI FACTORIES

96A.

The work of adult workers employed on drying of sugar in Khandsari Factories shall be deemed to be of nature referred to in clause (g) of subsection (2) of Section 64 and shall be exempt from the provisions of Sections 52 and 55 subject to the following conditions:

Conditions

i (i) No worker shall be employed for more than 14 consecutive days without a holiday of 24 consecutive hours.

ii (ii) A rest interval of halfanhour shall be given during the working hours.

iii (iii) Every worker shall be given a compensatory holiday in accordance with Section 53.

PRINTING PRESS

96B.

The work of male adult workers engaged in the printing of newspapers, who are held up on account of breakdown of machinery shall be deemed to be of the nature referred to in clause (i) of subsection (2) of Section 64 and shall be exempt from the provisions of Sections 51, 54 and 56 subject to the conditions stated below:

Conditions

i (i) Total hours of work shall not exceed 10 and the total hours of overtime work shall not exceed 50 in any one quarter, the total spreadover being limited 12 hours inclusive of rest interval in any one day.

ii (ii) All workers working in excess of 9 hours a day or 48 hours a week in a factory, shall be paid in respect of additional hours at the rate of twice the ordinary rate of wages in accordance with the provisions of subsection (1) of Section 59 of the Act.

96C.

The male adult workers, employed in any factory, clause or description of factory and engaged in the work notified in the Official Gazette by the State Government as a work of national importance under clause (k) of subsection (2) of Section 64 shall be exempt, from the provisions of Section 51, Section 52, Section 54, Section 55 and Section 56 of the said Act subject to the conditions that:

i (i) The total number of hours of work shall not exceed ten hours in any one day;

ii (ii) the period of work inclusive of intervals for rest shall not spread over more than twelve hours in any one day;

iii (iii) the total number of hours of work in any one week, including overtime, shall not exceed sixty;

iv (iv) the total number of hours of overtime shall not exceed fifty for any one quarter;

v (v) every worker shall be given compensatory holidays as provided under Section 53 of the Factories Act, 1948;

i (vi) an interval for rest of at least half an hour in a day shall be given to a worker during the working hours after five hours of work;

ii (vii) all workers working in a factory for more than nine hours in a day or for more than forty-eight hours in a week shall be paid in respect of such additional hours at the rate twice his ordinary rate of wage as provided under subsection (1) of Section 59 of the Factories Act, 1948; and

iii (viii) no worker shall be employed for more than fourteen consecutive days without a holiday of twenty-four consecutive hours.]

JUTE AND HEMP BALING FACTORIES

97.

The work of adult workers exclusively employed in the progress of hemp cleaning, assorting and combing (with the exception of mechanical and press house staff) shall be deemed to be of the nature referred to in subsection (1) of Section 65 and such workers shall be exempted from the provisions of Section 61 subject of the following conditions:

Conditions

i (i) No such adult workers shall be employed on Sunday.

ii (ii) The periods of work for adult workers shall be within the limits of 6 a.m. and 6 p.m. or where the Chief Inspector of Factories by order in writing so directs within the limits of 7 a.m. and 7 p.m.

iii (iii) The Manager or occupier of any such factory shall before he avails himself of an exemption granted under the preceding condition by the Chief Inspector of Factories, serve on the Inspector and display in the factory a notice of his intention to do so, in accordance with the provisions of subsection (2) of Section 108 of the Act, and shall keep the notice so displayed for such period as he avails himself of the exemption.

iv (iv) No person shall be allowed to work in a factory until the exact time of commencement of work and its duration has already been posted in the register in Form No. 12 against the name of each worker before its commencement.

PROVISIONS FOR EXCEPTIONAL PRESSURE OF WORK

98.

When a written exemption order is issued by the Chief Inspector under Section 65(2), he shall at once submit a copy of his order, together with a report of the circumstances, to the State Government, which may confirm or modify or rescind the order.

CHAPTER VII

NOTICE OF PERIODS OF WORK FOR CHILDREN

99.

The notice prescribed under Section 72 of the Act shall be in Form No. 11.

REGISTER OF CHILD WORKERS

100.

The Manager of every factory shall keep legibly written in ink, and, if he so desires, separately by departments, a register in Form No. 13, for child workers, showing the dates, whether Sundays or week days, on which the factory, or any department thereof, is closed and its employees are not working, the hours of work on each day of all the person working in the factory, the time of commencing work, rest periods, the time of ending work, the days of absence, and the nature of the employment of each person. Entries relating to presence or otherwise of all workers shall be posted in the register within four hours of the starting time of each working period of the factory, except on days when workers have been called to work on weekly holidays fixed under Section 52 when such entries shall be made within two hours but the name of each worker shall invariably be shown on the register before he or she is allowed to work in the factory.

101.

(a) The duties of a certifying surgeon appointed under Section 10(1) of the Act shall comprise the examination of young persons, desirous of being employed, and the reexamination of young person in respect of whom a notice under Section 75 has been served upon the Manager or who desires to be reemployed. Certificate of age and fitness shall be given only to such young persons as are found qualified to receive them on a fee of annas eight per young person being charged for such examination from the occupier or Manager of the factory.

(b) The certifying surgeon shall fix such date and place and time as may be mutually convenient for the attendance of persons wishing to obtain certificates of age and physical fitness. He shall give notice of the place, date and time thus fixed to the Manager of the factory within the local limits for which he is appointed.

CHAPTER VIII

LEAVE WITH WAGES

102. Leave with wages

(a) The Manager shall keep a register in Form No. 14 hereinafter called the leave with wages register, which shall be filled weekly or fortnightly or at least once a month:

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 the workers in the factory the particulars required for the 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
(b) 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.

102A. [43]Manner of choosing representative
The representative of the workers of committee for the purposes of subsection (8) of Section 79 shall be chosen by election through ballot.
103. Leave book
i (i) The Manager shall provide each worker with a book in Form No. 15 (hereinafter called the leave book). The leave books 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 leave or interruption in service and shall not keep it for more than a week at a time. Workers shall submit the leave book when required by the Manager within three days.
ii (ii) If a worker loses his leave book, the Manager shall provide him with another copy on the payment of four annas and shall complete it from his record.

104. 44Medical 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 a part of the period of his illness under the provisions of clause (7) of Section 79, he shall, if required by the Manager produce a medical certificate signed by a registered medical practitioner or by a registered or recognized Vaid or Hakim, stating the cause of the absence and the period for which the worker is, in the opinion of such medical practitioner unable to attend to his work, or other reliable evidence to prove that he was actually sick during the period for which the leave is to be availed of.
105.
The cash equivalent to the advantage accruing through the concessional sale of foodgrains and other articles, payable to the workers proceeding on leave, shall be the difference between the value at the average market rates, prevailing during the month immediately preceding his leave and the value at the concessional rates of foodgrains and other articles to which he is entitled. For the purpose of the cash equivalent, monthly average market rates of foodgrains and other articles shall be computed at the end of every month.
The average market rates shall be determined in accordance with the cost of living indices published from time to time by the Labour Commissioner, UTTAR PRADESH:
Provided that if retail prices for any particular centre are not published by the Labour Commissioner, UTTAR PRADESH, retail prices prevailing in the main market in that centre, or, if there is no market in the centre, the nearest market, shall be taken into account for this purpose.
106. Grant of leave with wages

A worker may exchange, the period of his leave with another worker, subject to the approval of the Manager.
107. 45Payment of wages if the worker dies

1 (1) Where 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 month of the receipt of intimation of the death of the worker.

2 (2) Each worker shall submit a nomination in Form No. 16, duly signed by himself or herself and attested by two witnesses. The nomination shall remain in force until it is revised or cancelled by another nomination.

108. Register for exemption under Section

1 (1) Where an exemption is granted under Section 84, the Manager shall maintain a register showing the position of each worker as regards leave due, taken and wages granted.

2 (2) He shall display at the place indicated in Section 108(2) 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 (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

109. 46Dangerous manufacturing process of operations

The following manufacturing processes or operations when carried on in any factory are declared to be dangerous manufacturing process or operations under Section 87:

i (i) Manufacture of aerated water and processes incidental thereto.

ii (ii) Electrolytic plating or oxidation of metal articles by use of an electrolyte containing chromicacid or other chromium compounds.

iii (iii) Manufacture and repair of electric accumulators.

iv (iv) Glass manufacture.

v (v) Grinding or glazing of metals.

vi (vi) Manufacture and treatment of lead and certain compounds of lead.

vii (vii) Generation of gas from dangerous petroleum.

viii (viii) Cleaning or smoothing of articles by a jet of sand, metal shot or grit or other abrasive propelled by a blast of compressed air or steam.

ix (ix) Liming and tanning or raw hides and skins and processes incidental thereto.

x (x) Certain lead processes carried on in Printing Presses and Type Foundries.

i (xi) Dichromate manufacture.

ii (xii) Chemical works.

iii (xiii) Manufacture or manipulation of Carcinogenic Dye Intermediates.

iv (xiv) Manufacture, handling and usage of benzene and substances containing benzene.

v (xv) Manufacture of pottery.

vi (xvi) Manipulation of stone or any other material containing free silica.

vii (xvii) Handling and processing of asbestos, manufacturing of any article of asbestos and any other processes of manufacture or otherwise in which asbestos is used in any form.

viii (xviii) Handling or manipulation of corrosive substances.

ix (xix) Compression of oxygen and hydrogen produced by electrolysis of water.

x (xx) Process of extracting oils and fats from vegetable and animal sources in solvent extraction plants.
xi (xxi) Manufacture of manipulation of manganese and its compounds.
xii (xxii) Manufacture or manipulation of dangerous pesticides.
xiii (xxiii) Manufacturing process or operations in carbon disulphide plants.
xiv (xxiv) Operation involving High Noise Levels.
xv (xxv) Manufacture of Rayon by Viscose process.
xvi (xxvi) Highly Flammable Liquids and Flammable Compressed Gases.
xvii (xxvii) Carpet and woollen drugget making or any work incidental thereto or connected therewith.
xviii (xxviii) Brassware making or any work incidental thereto or connected therewith.
xix (xxix) Lock and hardware making or any work incidental thereto or connected therewith.]

CHAPTER X
ACCIDENTS
110. 47Notification of accidents and dangerous occurrences
1 (1) When any accident which results in the death of any person or which results in such bodily injury to any person as is likely to cause his death, or any dangerous occurrence specified in the Schedule takes place in a factory, the Manager of the factory shall forthwith send a notice thereof by telephone, special messenger or telegram to the Inspector of Factories of the region concerned and the Chief Inspector of Factories.
2 (2) When any accident or any dangerous occurrence specified in the schedule, which results in the death of any person or which results in such bodily injury to any person

1 as is likely to cause his death, takes place in a factory notice as mentioned in subrule (1) shall also be sent to:
2 (a) the District Magistrate or SubDivisional Officer,
3 (b) the Officerincharge of the nearest police station, and the relatives of the injured or deceased person.
4 (c) the relatives of the injured or deceased person.
5 (3) Any notice given as required under subrules (1) and (2) shall be confirmed by the Manager of the factory to the authorities mentioned in the above subsides within 12 hours of the accident or the dangerous occurrence by sending them a written report in Form 18 in the case of an accident or dangerous occurrence causing death or bodily injury to any person and in Form 18A in the case of a dangerous occurrence which has not resulted in any bodily injury to any person.
6 (4) When any accident or dangerous occurrence specified in the Schedule takes place in a factory and it causes such bodily injury to any person as prevents the persons injured from working for a period of 48 hours or more immediately following the accident or the dangerous occurrence, as the case may be, the Manager of the factory shall send a report thereof to the Inspector of Factories of the region concerned as well as to the Chief Inspector of Factories in Form No. 18 within 24 hours after the expiry of 48 hours from the time of the accident or the dangerous occurrence:

Provided that if in the case of an accident or dangerous occurrence, death occurs of any person injured by such accident or dangerous occurrence after the notice and reports referred to in the foregoing subrules have been sent, the Manager of the factory shall forthwith send a notice thereof by telephone, special messenger or telegram to the authorities and persons mentioned in subrules (1) and (2) and also have this information confirmed in writing within 12 hours of the death:
Provided further that, if the period of disability from working for 48 hours or more referred to in subrule (4) does not occur immediately following the accident, or the dangerous occurrence but later, or occurs in more than one spell, the reports referred to shall be sent to the Inspector of Factories of the region concerned as well as to the Chief Inspector of Factories in Form No. 18 within 24 hours immediately following the hour when the actual total period of disability from working results from the accident or the dangerous occurrence becomes 48 hours.

SCHEDULE

The following are the classes of dangerous occurrences, whether or not they are attended by personal injury or disablement:
(a) Bursting of a plant used for containing or supplying steam under pressure greater than atmospheric pressure.
(b) Collapse or failure of a crane, derrick, winch hoist or other appliances used in raising or lowering persons or goods, or any part thereof, on the overturning of a crane.

(c) Explosion, fire, bursting out, leakage or escape of any molten metal, or hot liquid or gas causing bodily injury to any person or damage to any room or place in which persons are employed, or fire in rooms of cotton pressing factories when a cotton opener is in use.
(d) Explosion of a receiver or container used for the storage at a pressuse greater than atmospheric pressure of any gas or gases (including air) or any liquid or solid resulting from the compression of gas.
(e) Collapse or subsidence of any floor, gallery, roof, bridge, tunnel, chimney, wall, building or any other structure.]

111.

No person shall be allowed to disturb the site at which a fatal accident has occurred or any objects involved in the accident before the arrival of the Inspector, or a police officer, not below the rank of a SubInspector, or without the consent of such officer, provided that such action may be taken as may be necessary to prevent a further accident or to secure persons from danger.

NOTICE OF POISONING FROM NOTIFIABLE DISEASES

112.

1 (1) A notice in Form No. 19 should be sent forthwith [48][to the Chief Inspector, the Inspector of Factories of the region concerned] and the certifying surgeon of the district by the Manager of factory in which there occurs a case of lead, phosphorus, mercury, manganese, arsenic, carbon bisulphide or benzene poisoning; or 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 opitheliomatous cancer of the skin, or pathological manifestations due to radium or other radioactive substances or xrays.

2 (2) [49]For every report, which, is sent by a medical practitioner to the Chief Inspector in accordance with the provisions of subsection (2) of Section 89 of the Act, and which is confirmed to the satisfaction of the Chief Inspector by the certificate of a certifying surgeon or otherwise, as required under subsection (3) thereof, the medical practitioner shall be paid a fee of Rs. 2 by the Chief Inspector.]

CHAPTER XI
SUPPLEMENTAL
PROCEDURE IN APPEALS

113.

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 Labour Commissioner, U. P. and shall be in that form of a memorandum setting forth concisely the grounds of objection to the order and bearing courtfees stamp in accordance with Article II of

Schedule II to the Court Fees Act, 1870, and shall be accompanied by a copy of the order appealed against.

114.

The Employers' Association of Northern India, Kanpur, Indian Sugar Mills Association, 23B Netaji Subhas Road, Calcutta, the Upper India Chamber of Commerce, Kanpur, the Merchants' Chamber of Commerce, Kanpur, the U. P. Chamber of Commerce, Kanpur, the U. P. Glass Manufacturers' Syndicate, Shikohabad, the Western U. P. Chamber of Commerce, Meerut, [48]National Chamber of Industries and Commerce, U. P., Agra, [49]Glass Industries Syndicate, Firozabad, Agra, are hereby prescribed as bodies empowered to appoint one of the two assessors referred to in subsection (2) of Section 107.

115.

The appellant shall state in the memorandum presented under Rule 113 whether he is a member of any of the aforesaid bodies, and if, he is member of two such bodies which of these two bodies he desires should appoint one of the two assessors as aforesaid; and the body empowered to appoint such assessors shall:

i (i) if the appellant is a member of one of such bodies, be that body;

ii (ii) if he is not a member of any of the aforesaid bodies, or is a member of two such bodies, be the body of which the appellant desires should appoint such assessor ; and

iii (iii) if the appellant does not state in the memorandum which of such bodies he desires should appoint the assessor be the body which the appellate authority considers as the best fitted to represent the industry concerned.

APPOINTMENT OF ASSESSORS

116.

On receipt of the memorandum of appeal, the appellate authority may, if it thinks fit, or if the appellant has requested that the appeal should be heard with the aid of assessors, call upon the body, declared under Rule 115 to be the body representative of the industry concerned under

subsection (2) of Section 107 to appoint an assessor within a period of 14 days. If an assessor is nominated by such body, the appellate authority shall itself appoint a second assessor, who shall be independent. It shall then fix a date for the hearing of the appeal and shall give due notice of such date to the appellant and to the Inspector whose order is appealed against and shall call upon the two assessors to appear upon such date to assist in the hearing of the appeal.

REMUNERATION OF ASSESSORS

117.

An assessor appointed in accordance with the provisions of Rules 114 and 115 shall receive for the hearing of the appeal, a fee to be fixed by the appellate authority, subject to a maximum of fifty rupees per diem. He shall also receive reasonable travelling expenses to be fixed by the appellate authority. The fees and travelling expenses shall ordinarily be paid

to the assessor by Government; but where assessors have been appointed at the request of the appellant the fees and travelling expenses of the assessors shall be paid in full by the appellant if the appeal has been decided wholly against the appellant and if the appeal is only partly decided against the appellant, the appellate authority may direct what part of the fees and travelling expenses of the assessors shall be paid by the appellant and what part by the Government.

DISPLAY OF NOTICES

118.

The abstract of the Act and the rules required by Section 108(1) to be displayed in every factory shall be in the prescribed Form No. 20.

MANNER OF SERVICE OF NOTICE

119.

The despatch by post, under register cover acknowledgment due, of any notice, order of extract of an Inspector's report send under the Act or under these rules shall be deemed sufficient service on the occupier or Manager the factory of such notice or order or of any directions contained in such extract.

RETURNS

120.

The owner, occupier or Manager of every factory shall furnish to the Chief Inspector of Factories and any other officer or officers designated by Government the following returns namely:

i (i) On or before January 15, every year an annual return in duplicate in the Form No. 21:

ii (ii) 50[On or before July 15, each year, a halfyearly return for the period January 1 to June 30 in duplicate in the Form No. 22:]

Provided that in the case of a factory in which work is carried on only during a certain season or seasons of the year, the occupier or Manager shall submit the return within 15 days after the close of that season or last of these seasons, as the case may be.

THE INFORMATION REQUIRED BY THE INSPECTOR

121.

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 carried out by an Inspector for 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 receipt thereof.

REGISTER OF ACCIDENTS AND DANGEROUS OCCURRENCES

122.

The Manager of every factory shall maintain a register of all accidents and dangerous occurrences, which occur in the factory in Form No. 23.

INSPECTION BOOK

123.

(a) The Manager of every factory shall maintain a bound Inspection Book as described below and shall be responsible for its production on demand by an Inspector or a Certifying Surgeon irrespective of the fact whether the Manager is present in the factory at the time of the inspection or not. The Manager shall also be responsible for any damage to, loss of or tempering with the Inspection Book.

The Inspection Book shall be of the size 13"x8 1/2''. It shall contain at least 180 sheets. Every fourth sheet thereof shall be serially numbered and the two unnumbered sheets, between each two serially numbered sheets, shall have a vertical perforated straight line on the lefthand side at a margin of 1".

It shall also contain in the beginning at least six copies each of Form Nos. 1,4, 6, 8 and 9, prescribed under these rules. Form No. 1, shall be kept posted up to date and Form No. 4, shall be filled in every year or whenever there is change of Manager or occupier. All exemptions granted to the factory shall be posted in Form No. 6 and entries in Form Nos. 8 and 9 shall be made periodically according to the relevant rules.

(b) In case the Inspection Book containing the remarks passed by an Inspector or a Certifying Surgeon is lost, the Manager of the factory shall within a week report in writing the loss of Inspection Book to the Chief Inspector and the Inspector Incharge of the region stating the circumstances in which it has been lost and shall immediately start maintaining a new Inspection Book.

PRODUCTION OF REGISTERS AND RECORDS

124. Production of Registers and Records

1 (1) [51][All registers, records required to be maintained under the Act and these rules shall be produced on demand by an Inspector or Certifying Surgeon.

2 (2) All registers, forms, certificates, records required to be maintained under the Act and these rules shall be preserved for three years to which they relate except the records of testing and medical examination of workers for a period of which is expressly provided in the Act and these rules.]

RECORDS OF INSPECTION

125.

[52][A note of all defects and irregularities discovered at the time of inspection by an Inspector, or a Certifying Surgeon, shall be prepared by him, in triplicate in the Inspection Book maintained under Rule 123, giving reference to relevant sections of the Act and Rules, the breach of which has been committed. He shall detach the two copies on the unnumbered perforated pages for sending one to the Chief Inspector and retaining the

1 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.

1 2. Faceguards and gauntlets (1) The occupier shall provide and maintain in good condition for the use of all persons engaged in filling bottles or syphons:

other for record in his office. The original on the numbered pages shall be left intact in the Inspection Book.]

126.

All Additional Inspectors appointed under Section 8(4) and 8(5) shall inspect factories for breaches of sections mentioned in Rule 15(c) and their relevant rules and shall submit their inspection reports to the Chief Inspector of Factories, who shall pass final orders thereon.

INFORMATION OF CLOSURE OF FACTORIES

127.

The occupier or Manager of every factory shall report to the Inspector any intended closure of the factory or any section or department thereof immediately it is decided to do so, intimating the reason for the closure, the number of workers on the register on the date of report, the number of workers likely to be effected by the closure and the probable period of the closure. An intimation shall 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.

128.

[53][Plantation of Trees: The occupier of a factory, employing ordinarily 100 or more workers, shall plant and maintain trees within the precincts of the factory. The number, type and layout of the trees to be planted shall be got approved by the Forest Officer of the area or any other qualified Horticulturist.]

SCHEDULE I

MANUFACTURE OF AERATED WATERS AND PROCESSES INCIDENTAL THERETO

(a) suitable faceguards to protect the face, neck and throat, and

(b) suitable gauntlets for both arms to protect the wholehand and arms: Provided that:

(i) Paragraph 2(1) shall not apply where 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 bottler at work upon it is exposed to danger, a gauntlet need not be provided for the arm, which is not exposed to danger.

1 (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:

3. Wearing of faceguards and gauntlets: All persons engaged in any of the processes specified in paragraph 2 shall while at work in such processes, wear the faceguards and gauntlets provided under the provisions of the said paragraph.

(a) suitable faceguards to protect the face, neck and throat, and
(b) suitable gauntlets for both arms to protect the arm and at least half of the palm and the space between the thumb and forefinger.

54[SCHEDULE II

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

1 1. Definition: For the purposes of this schedule,
2 (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.
3 (b) "Bath" means by vessel used for an electrolytic chromium process or for any subsequent process.
4 (c) "Employed" means in paragraphs 5, 7, 8 and 9 of this schedule, employed in any process involving contact with liquid from a bath.
5 (d) “First employment” shall mean first employment in the electrolytic chromium process and shall also include re-employment in the said process following any cessation of employment for a continuous period excluding three calendar months.
6 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.
7 3. Prohibition relating to women and young persons: No woman, adolescent or child shall be employed or permitted to work at a bath.
8 4. Floor of workrooms: The floor or 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.
9 5. Protective clothing
10 (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

1 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:
2 (a) Waterproof aprons and bibs, and

3 (b) for persons actually working at a bath, loose fitting rubber gloves and rubber boots or other waterproof foot wear.
4 (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.
5 6. Medical facilities and records of examinations and tests
6 (1) The occupier of every factory in which electrolytic chromium processes are carried on shall:
7 (a) Employ a qualified medical practitioner for medical surveillance of the workers engaged therein whose appointment shall be subject to the approval of the Chief Inspector of Factories:
8 (b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a): and
9 (c) Provide and maintain a sufficient supply of suitable ointment and impermeable waterproof plaster in a separate box readily accessible to the workers and used solely for the purpose of keeping the ointment and the plaster.
10 (2) The medical practitioner shall examine all workers before they are employed in electrolytic chromium processes. Such examination shall include inspection of hands, forearms and nose and will be carried out at intervals of not more than one week.
11 (3) The record of the examinations referred to in sub-paragraph (2) shall be maintained in a separate register approved by the Chief Inspector of Factories which shall be kept readily available for inspection by the Inspector.
12 7. Medical examination by the Certifying Surgeon
13 (1) Every worker employed in the electrolytic chromium processes shall be examined by a Certifying Surgeon within 15days of his first employment. Such examination shall include tests for chromium in urine and nasal septum perforation. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
14 (2) Every worker employed in the said process shall be re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests as specified under sub-paragraph (1).

1 (3) The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in Form 26. The record of examination and re-examinations carried out shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a Health Register in Form27.
2 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.
3 (5) If at any time, the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the Health Register. The entry of his findings in these documents should also

include the period for which he considers that the said person is unfit for work in the said processes.

4 (6) No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon after further examination, again certifies him fit for employment in these processes.

5 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 ii can be easily and conveniently read by the workers.

SCHEDULE III

MANUFACTURE AND REPAIRS OF ELECTRIC ACCUMULATORS

1 1. Savings: This schedule shall not apply to the manufacture or repair of electric accumulators or parts 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 2. Definitions: For the purposes of this schedule:

3 (a) “first employment” shall mean first employment in the lead process and shall also include re-employment in the said process following any cessation of employment for a continuous period exceeding three calendar months;

4 (b) "Lead Process" means the melting of lead or any material containing lead, casting, pasting, lead burning, or any other work, including tibbling, or any other abrading or cutting of pasted plates, involving the use, movement or manipulation of, or contact with any oxide of lead.

5 (c) "Manipulation of raw oxide of lead" means any lead process involving any manipulation or movement of raw oxides of lead other than its conveyance in a receptacle or by means of an implement from one operation to another.

1 3. Prohibition relating to workmen and young persons: No women 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.

2 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:

3 (a) manipulation of raw oxide of lead;

4 (b) pasting;

5 (c) drying of pasted plates;

6 (d) formation with lead burning ("tacking") necessarily carried on in connection therewith;

7 (e) melting down of pasted plates;

8 5. Air space: In every room in which a lead process is carried on, there shall be at least 14.2 cubic meters of air space for each person employed therein, and in computing this air space no height over 3.65 meters shall be taken into account.

9 6. Ventilation: Every workroom shall be provided with inlets and outlets of adequate size so as to secure and maintain efficient ventilation to all parts of the room.

10 7. Distance between workers in pasting room: In every pasting room the distance between the centre of the working position of any paster and that of the paster working nearest to him shall not be less than 1.5 metres.
11 8. Floor of workrooms
12 (1) The floor of every room in which a lead process is carried on shall be,
13 (a) of cement or similar material so as to be smooth and impervious to water;
14 (b) maintained in sound conditions ;
15 (c) kept free from materials, plant or other obstruction not required for, or produced in, the process carried on in the room.
16 (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 other work is being carried on in the room.
17 (3) In grid casting shops the floor shall be cleansed daily.
18 (4) Without prejudice to the requirements of subparagraphs (1), (2) and (3), where manipulation of raw oxide of lead of pasting is carried on the floor shall also be:
19 (a) kept constantly moist while work is being done:
20 (b) provided with suitable and adequate arrangements for drainage:
21 (c) thoroughly washed daily by means of a hosepipe.

1 9. Work benches: The work benches at which any lead process is carried on shall,
2 (a) have a smooth surface and be maintained in sound condition;
3 (b) be kept free from all materials or plant not required for, or produced in, the process carried on thereat;

and, all such workbenches other than those in grid casting shops shall.
(c) 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;

and, all such workbenches in grid casting shops, shall.
(d) be cleansed daily;

and every workbench used for pasting shall.
(e) be covered throughout with sheet lead or other impervious material.
(f) be provided with raised edges:
(g) be kept constantly moist while pasting is being carried on.
10. Exhaust draught
(1) The following process shall not be carried on without the use of an efficient, exhaust draught,
(a) Melting of lead 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 workroom;
(c) Pasting;
(d) Trimming, brushing, filing or any other abrading or cutting of pastered 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.
(2) Such exhaust draught shall be effected by mechanical means and shall operate on the dust of fume given off as nearly as may be at its point of origin, so as to prevent it entering the air of any room in which person's 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 person's work.

1 12. Container of dross: A suitable receptacle with tightly fitting cover shall be provided and used for dross as it is removed from every melting pot. Such receptacle shall be kept covered while in the workroom except when dross is being deposited therein.
2 13. Container for lead waste: A suitable receptacle shall be provided in every workroom in which old plates and waste material, which may give rise to dust shall be deposited.
3 14. Racks and shelves in drying room
4 (1) The racks or shelves provided in any drying room shall not be more than 2.4 metres from the floor and not more than centimetres in width, provided that as regards racks or shelves set or drawn from both sides, the total width shall not exceed 1.2 metres.
5 (2) Such racks or shelves shall be cleansed only after being thoroughly damped unless an efficient suction cleaning apparatus is used for the purpose.
6 15. Medical facilities and records of examinations and tests
7 (1) The occupier of every factory in which manufacture and repair of electric accumulators is carried on shall:
8 (a) employ a qualified medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories; and
9 (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
10 (2) The record of medical examination appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories which shall be kept readily available for inspection by the Inspector.
11 16. Medical examination by Certifying Surgeon
12 (1) Every worker employed in lead processes shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for lead in urine and blood. ALA in urine, haemoglobin content, stippling of cells and steadiness test. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
13 (2) Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every three calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests specified in sub-paragraph (1)
14 (3) The Certifying Surgeon after examining workers shall issue Certificate of Fitness in Form 26. The record of examination and re-examinations carried out shall be entered in the certificate and the certificate shall be kept in the custody of the

1 Manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the rests, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.
2 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.
3 (5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker he shall make a record of his findings in the said Certificate and the Health Register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.
4 (6) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.
5 17. Protective clothing
6 (1) Protective clothing shall be provided and maintained in good repair for all persons employed in.
7 (a) manipulation of raw oxide of lead;
8 (b) pasting;
9 (c) the formation room;

and such clothing shall be worn by the persons concerned
1 (2) The protective clothing shall consist of a waterproof apron and waterproof footwear; and, also, as regards persons employed in the manipulation of raw oxideof lead or in pasting, head covering. The head coverings shall be washed daily.
2 18. Messroom: There shall be provided and maintained for the use of all persons employed in a lead process and remaining on premises during the meal intervals, a suitable messroom, which shall be furnished with sufficient tables and benches, and adequate means for warming food.

The messroom shall be provided under die charge of a responsible person, and shall be kept clean.
1 19. Cloakroom: There shall be provided and maintained for the use of all persons employed in a lead process.
2 (a) a cloakroom for clothing put off during working hours with adequate arrangements for drying the clothing, if wet.

Such accommodation shall be separate from any messroom and

(b) separate and suitable arrangements for the storage of protective clothing provided under paragraph 17.
20. Washing facilities
(1) 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 60 centimetres 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 60 centimetres 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.
(b) a sufficient supply of clean towels made of suitable materials renewed daily which supply, in die case of pasters and persons employed in die manipulation of raw oxide of lead, shall include a separate marked towel for each such worker; and
(c) a sufficient supply of soap or other suitable cleansing material and of nail brushes.
(2) There shall in addition be provided means of washing in close proximity to die rooms in which manipulation of raw oxide of lead or pasting is carried on if required by notice in writing from the Chief Inspector.
21. Time to be allowed for washing: Before each meal and before the end of the days, 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 bough for each such person this rule shall not apply.
1 22. Facilities for bathing: Sufficient bath accommodation to the satisfaction of the Chief Inspector shall be provided for all persons engaged in the manipulation of raw oxide of lead or in pasting and a sufficient supply of soap and clean towels.
2 23. Food, drink, etc. prohibited in workroom: No food, drink, pan and supari or tobacco shall be consumed or brought by any worker into any workroom in which any lead process is carried on.

SCHEDULE IV
GLASS MANUFACTURE

1 1. Exemption: If the Chief Inspector is satisfied in respect of any factory or any class of process that, owing to the special methods of work or the special conditions in a factory or otherwise, any of the requirements of this schedule can be suspended or relaxed without 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 a 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 2. Definitions: For the purposes of this schedule,
3 (a) "Efficient exhaust draught'" means localized 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.

4 (b) “first employment” shall mean first employment in process specified in paragraph 3 and on glass blowing and shall also include re-employment in the said processes following any cessation of employment for a continuous period exceeding three calendar months: and
5 (c) "Lead compound"' means any compound of lead other than galena, which, when treated in the manner described below, yields to an aqueous solution of hydrochloric acid a quantity of 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°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 filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate.
1 3. [55][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:
2 (a) The mixing of raw materials to form a "batch".
3 (b) The dry grinding, glazing and polishing of glass or any article of glass.
4 (c) All process in which hydrofluoric acid fumes or ammonical vapours are given off.

(d) All processes in the making of furnace mould or "pots" including the grinding or crushing of used "pots".
(e) All processes involving the use of a dry lead compound.
(f) Any other operation which omits dust or vapour, or gas or mist or smoke or soot while further processing the glass bangles or other glass products by jointing, grinding, decorating, annealing, remelting, painting, printing, abrasive blasting, etching, marking, etc.]
4. Prohibition relating to women and young persons: No women or young person shall be employed or permitted to work in any of the operations specified in paragraph 3 or at any place where such operations are carried on.
5. Floors and workbenches: The floor and workbenches 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:
(a) the floors shall be,
(i) of cement or similar material so as to be smooth and impervious to water:
(ii) maintained in sound conditions; and
(iii) cleansed daily after being thoroughly sprayed with water at a time when no other work is being carried on in the rooms, and
(b) The workbenches shall,
(i) have a smooth surface and be maintained in sound condition, and
(ii) be cleansed daily either after being thoroughly damped 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 places shall be so enclosed in projecting hoods that openings required for bringing in the objects to be treated shall be as small as practicable; and
(d) the efficient exhaust draught shall be so contrived that the gases are exhausted downwards.
7. Storage and transport of Hydrofluoric Acid: Hydrofluoric acid shall not be stored or transported except in cylinders or reception made of lead or rubber.

1 8. Food, drinks, etc. prohibited in workroom: 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 carried on.
2 9. 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.
3 10. Washing facilities: There shall be provided and maintained in cleanly state and in good repair for the use of all persons employed in the processes specified in paragraph 3:
4 (a) a wash place with either,
5 (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 2 feet; or
6 (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:
7 (b) a sufficient supply of clean towels made of suitable materials renewed daily with a sufficient supply of soap or other suitable cleansing material and of nail brushes: and
8 (c) a sufficient number of standpipes with taps. The number and location of such standpipe shall be to the satisfaction of the Chief Inspector.
9 11. Medical facilities and record of examination and tests
10 (1) The occupier of every factory in which glass manufacturing processes are carried out, shall:
11 (a) employ a qualified medical practitioner for medical surveillance of the workers employed therein whose appointment shall be subject to the approval of the Chief Inspector of Factories, and
12 (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
13 (2) The records of medical examinations and appropriate tests carried out by said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection the Inspector.

14 12. [56][Medical examination by Certifying Surgeon

1 (1) Every worker employed in Processes specified in paragraph 3, processes specified below and on glass blowing shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examinations shall include examination of eyesight, pulmonary functions tests and in suspected cases chest X-rays as well as tests for lead in urine of workers except the working on glass blowing. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon:

Processes:
—Preparation of Ghundi/Gulli and barns from the red-hot molten glass,
—Colouring, designing of loams, reheating and reshaping of loams;
—Manipulation of "Bangle-Coils" from reheated/designed barns on the belan or bangle drawing machines;
—Rotation of belan;
—Setting/separation of bangle-coils while manipulation of bangle is being done;
—Collection of bangle-coils at the other end of bangle drawing belan rod;
—Cutting of bangle-coils.
1 (2) Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every twelve calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests as specified in sub-paragraph (1).
2 (3) The Certifying Surgeon after examining a worker shall issue Certificate of Fitness in Form 26. The record of examination and re-examination carried out shall be entered in the certificate and the certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results of the tests, shall also be enter-by the certifying Surgeon Health Register in Form 27
3 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.
4 (5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of worker, he shall make a record of his finding in the said certificate and the Health Register The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes,
5 (6) No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed. or permitted to work in the said processes unless the Certifying

1 Surgeon after further examination, again certifies him to be fit for employment in those processes.
2 13. Blow pipes: Every glass blower shall be provided with a separate blow pipe Dearing the distinguishing mark of the person to whom it is issued and suitable facilities shall be readily available to every glass blower for sterilizing his blow pipe.

SCHEDULE V

GRINDING OR GLAZING OF METALS AND PROCESS INCIDENTAL THERETO

1 1. Definitions: For the purposes of this schedule,

2 (a) "Abrasive wheel" means a wheel manufactured of bounded emery or similar abrasive.

3 (b) First employment" shall mean first employment in grinding or glazing of metals and processes incidental thereto and shall also include re-employment in the said processes following any cessation of employment for a continuous period exceeding three calendar months.

4 (c) "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.

5 (d) "Grinding" means the abrasion by aid of mechanical power, of metal, by means of a grindstone or abrasive wheel.

6 (e) "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.

7 (f) "Hacking" means the chipping of the surface of a grindstone by a hack or similar tool.

8 (g) "Racing" means the turning up, cutting or dressing of a revolving grindstone before it is brought into use for the first time.

9 (h) "Rodding" means the dressing of the surface of revolving grindstone by the application of a rod, bar or strip of metal to such surface.

10 2. Exceptions

11 (a) 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.

12 (b) Nothing in this schedule except paragraph 4, shall apply 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.

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

(a) a hood or other appliance so constructed, arranged, placed and maintained as substantially to intercept the dust thrown off:

(b) a duct of adequate size, airtight 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.

1 4. Restriction on 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.

1 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.

2 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, (b) adequate appliances for the interception of dust are provided in accordance with the requirements of paragraph 3.

3 7. Examination of dust equipment

4 (1) All equipment for the extraction or suspension of dust shall, at least once in every six months, be examined and tested by competent person, and any defect disclosed by such examination and test shall be rectified as soon as practicable.

5 (2) A register containing particulars of such examination and test shall be kept in a form approved by the Chief Inspector.

6 8. Medical facilities and record of examinations and tests

7 (1) The occupier of every factory in which grinding or glazing of metals are carried out, shall

8 (a) employ a qualified medical practitioner for Medical surveillance of the workers employed therein whose appointment shall be subject to the approval of the Chief Inspector of Factories; and

(b) provide to the said medical practitioner all the necessary facilities for the purposes referred to in clause (a).

(2) The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shalt be-kept readily available for inspection by the Inspector.

9. Medical examination by Certifying Surgeon

(1) Every worker employed grinding or glazing of metal and processes incidental thereto shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examinations shall include pulmonary function tests and in suspect cases chest X-rays. No worker. Shall Be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2) Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every 12 calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests as specified in sub-paragraph (1).

(3) The Certifying Surgeon after examining a worker shall issue a Certificate Fitness in Form 26. The record of examination and re-examinations carried out shall be entered in the certificate and the certificate shall be kept in the custody of the Manager of the factory. The record of

each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the test, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.
(4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.
(5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the Health Register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.
(6) No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.
10. Exemption: The Chief Inspector may by certificate in writing, subject to such conditions as he may specify therein, relax or suspend any provisions of this Schedule in respect of any factory, if owing to the specially methods of work otherwise such relaxation or suspension is practicable without this of the provisions of or safety of the persons employed.

SCHEDULE VI
MANUFACTURE AND TREATMENT OF LEAD AND CERTAIN COMPOUNDS OF LEAD

1 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 such provisions, subject to such condition as he may specify therein.

2 2. Definitions: For the purposes of this schedule,

3 (a) "Efficient exhaust draught" means localized 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 condition 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 vapour, fumes or dust originate.

4 (b) “First employment” shall mean first employment in processes referred to in paragraph 3 and shall also include re-employment in the said process following any cessation of employment for a continuous period following any cessation of employment for a continuous period exceeding three calendar months: and

5 (c) "Lead Compound" means any compound of lead other than galena which when treated in the manner described below, yields to an aqueous solution of hydrochloric acid, a quantity of 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 points and similar products and other mixture containing oil or fat the "dry weight" means the dry weight of the material remaining after the substance has been thoroughly mixed and treated with suitable solvents to remove oil, fats, varnish or other media.

The method of treatment shall be as follows:

A 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 filtered shall then be precipitated as lead sulphide and weighed as lead sulphate.

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

2 (a) Work at a furnace where the reduction or treatment of zinc or lead ores is carried on.

3 (b) The manipulation treatment or reduction of ashes containing lead, the delivering 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) Handling or mixing of lead tetraethyl.

(f) Any other operation involving the use of a lead compound.

(g) The cleaning of workrooms where any of the operations aforesaid are carried on.

4. Prohibition relating to women and young persons: No women or young persons 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

(1) The occupier of every factory to which the schedule applies shall,

(a) Employ a qualified medical practitioner for medical surveillance of the workers employed therein whose appointment shall be subject to the approval of the Chief Inspector of Factories and

(b) Provide the said medical practitioner all the necessary facilities for the purpose referred to in clause (a)

(2) The record of medical examination and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

8. Medical examination

(1) Every worker employed in the processes referred to in paragraph 3 shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for lead in blood and urine, ALA in urine, haemoglobin content, stippling of cells and steadiness

test. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
(2) Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every three calendar months. Such re-

1 examination shall, wherever the Certifying Surgeon considers appropriate include tests specified in sub-paragraph (1)
2 (3) The Certifying Surgeon after examining a worker will issue a Certificate of Fitness in Form 26. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the Manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results of the test shall also be entered by the Certifying Surgeon in a Health Register in Form 27.
3 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.
4 (5) 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 of worker, he shall make a record of his findings in the said Certificate and the Health Register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.
5 (6) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon after further examination again certifies him fit for employment in those processes.
6 9. Food, drinks, etc., prohibited in workrooms: No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any workroom in which any of the processes specified in paragraph 3 are carried on and no person shall remain in any such room during intervals for meals or rest.
7 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 covering shall be worn by the persons employed.
8 11. Cleanliness of workrooms, tools, etc: The rooms in which the persons are employed and all tools, and apparatus used by them shall be kept in a clean state.
9 12. Washing facilities
10 (1) The occupier shall provide and maintain for the use of all persons employed suitable washing facilities consisting of:
11 (a) A trough with a smooth impervious surface fitted with a waste pipe without plug and of sufficient length to allow at least two feet for every ten persons employed at any one time, and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 60 centimetres:
12 (b) at least one washbasin for every ten persons employed at any one time, fitted with a wastepipe and plug and having a constant supply of clean

water together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleaning material and clean towels;

(2) The facilities so provided shall be placed under the charge of 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.

SCHEDULE VII

57[GENERATION OF GAS FROM DANGEROUS PETROLEUM

1 1. Prohibition relating to women and young persons: No women or young persons 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 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 all pipes and valves shall be installed and maintained free from leaks.

3 3. Generating building or room: All plants for generation of gas from dangerous petroleum erected after the coming into force of the provision 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 4. Fire extinguishers: An efficient means of extinguishing petrol fires shall be maintained in any easily accessible position near the plant for generation of gas from dangerous petroleum.

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

1 6. Escape of petrol: Effective steps shall be taken to prevent petrol from escaping into any drain or sewer.

2 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 warning notice in the language understood by the majority of the workers shall be posted 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.

3 8. Access to petrol or containers: No unauthorized person shall have access to any petrol or to a vessel containing or having actually contained petrol.
4 9. Electric fittings: All electric fitting shall be of flame proof construction and all electric conductors shall either be enclosed in metal conduites or be lead-sheeted.
5 10. Construction of doors: All doors in the generating room or building shall be constructed to open outward; 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.
6 11. Repair of containers: No vessel that has contained petrol shall be repaired in a generating room or building and no repairs to any such vessels shall be undertaken unless live steam has been blown into the vessel and until the interior thoroughly steamed out or other equally effective steps have been taken to ensure that it has been rendered free from petrol or inflammable vapour.

58[SCHEDULE VIII

CLEANING OR SMOOTHING OF ARTICLES BY A JET OF SAND METAL SHOT OR GRIT OR OTHER ABRASIVE PROPELLED BY A BLAST OF COMPRESSED AIR OR STEAM

1 1. Definition: For the purpose of this schedule,
2 (a) "blasting" means cleaning, smoothing, roughening or removing of any part of the surface of any article by the use of an abrasive jet of sand, metal shot, or graft or other material, propelled by a blast of compressed ait or steam:
3 (b) “blasting chamber” means a blasting enclosure in which any person may enter at any time in connection with any work or otherwise
4 (c) “blasting enclosure” means a chamber, barrel, cabinet or any other enclosure designed for the performance of basting therein:
5 (d) “cleaning of castings” done as an incidental or supplemental processes in connection with the making of 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: and
(e) “first employment” shall mean first employment in any of the processes to which this schedule applies and shall also include re-employment in the said process following any cessation of employment for continuous period exceeding their calendar months.
2. Prohibition of sand blasting: Sand or any other substance containing silica shall not be introduced as an abrasive into any blasting apparatus and shall not be used for blasting:

Provided that this clause 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
1 3. Precautions in connection with blasting operations,
2 (1) Blasting shall not be done except in the blasting enclosure and no work other than blasting and any work immediately incidental thereto as sand clearing and repairing of the

enclosure including the plant and appliances situated therein, shall be kept closed and airtight while blasting is being done therein.

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

4 (3) There shall be provided and maintained 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 chamber, 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.

1 (4) 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.

1 (5) 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 blasting chamber, it shall be in operation even when any person is inside the chamber for the purpose of cleaning.

2 4. Inspection and examination

3 (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 competent person at least once in every month.

4 (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 an Inspector or any workman employed 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 equipments of this schedule, shall be removed without any delay.

5 5. Provision of protector helmets, gauntlets and overalls

6 (1) These 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, protector helmets of a type approved by a certificate of the Chief Inspector

and every such person shall wear the helmet provided for his use whilst he is in the chamber and shall not remove until he is outside the chamber.

7 (2) Each protective helmet shall carry a distinguishing mark indicating the person by which 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.

8 (3) Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate of not less than 170 litres per minute.

9 (4) Suitable gauntlets and overall 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 provided.

10 6. Precautions in connection with cleaning and other work

11 (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

1 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 (2) In connection with any cleaning operation referred to in paragraph 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. Vaccum cleaners shall be provided and used wherever practicable for such cleaning operations.

3 7. Storage accommodation for protective wear: Adequate and suitable storage accommodation for the helmets, gauntlets and overalls required to be provided by paragraph 5 shall be provided outside and conveniently near to every blasting enclosure and such accommodation shall be kept clean. Helmets, gauntlets and overalls when not in actual use shall be kept in this accommodation.

4 8. Maintenance and cleaning of protective wear: All helmets, gauntlets, overalls and other protective devices or clothings provided and worn for the purposes of this schedule, shall be kept in good condition and so far, as is reasonably practicable shall be cleaned on every week day in which they are used. Where dust arising from the clearing 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.

5 9. Maintenance of vacuum cleaning plant: Vacuum cleaning plant used for the purpose of this schedule shall be properly maintained.

6 10. Medical facilities and records of examination and test

7 (1) The occupier of every factory to which the schedule applies shall,

8 (a) employ a qualified medical practitioner for medical surveillance of the worker employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories; and

9 (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).

10 (2) The record of medical examinations and appropriate test carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.
11 11. Medical examination by Certifying Surgeon
12 (1) Every worker employed in any of the processes to which this schedule applies shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include pulmonary function test and chest

1 X-ray. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
2 (2) Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every 12 calendar months and such re-examination shall, wherever the Certifying Surgeon considers appropriate, include pulmonary function test and chest X-ray once in every three years.
3 (3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 26. The record of examination and re-examinations carried out shall be kept in the custody of the Manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the test, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.
4 (4) The Certificate of Fitness and the Health Register shall be readily available for inspection by the Inspector.
5 (5) If at any time Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said Certificate and the Health Register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.
6 (6) No person who has been found unfit to work in the said processes as said in sub-paragraph (5) above shall be re-employed or permitted to work unless the Certifying Surgeon, after further examination, again certified him fit for employment in those processes.
7 12. Restrictions in employment of young persons
8 (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.
9 (2) No person under 18 years of age shall be employed to work regularly within 6 metres of any blasting enclosures unless the enclosure is in a room and he is outside that room where he is effectively separated from any dust corning from the enclosure.
10 13. Power to exempt or relax
11 (1) If the Chief Inspector is satisfied that in any factory or any class of factories, the use of sand or other substance containing free silica as an abrasive 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 without the use of such abrasive or

1 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 of 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 factories from such provisions of this schedule to such an extent and subject to such conditions and for such period as may be specified in the said order.

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

SCHEDULE IX

LIMING AND TANNING OF RAW HIDES AND SKINS AND PROCESS INCIDENTAL THERETO

1 1. Cautionary notices

2 (1) Cautionary notices as to anthrax in the form specified by the Chief Inspector shall be affixed in prominent position in the factory where they may be easily and conveniently read by the person employed.

3 (2) A copy of a 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.

4 (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.

5 (4) Notices shall be affixed in prominent places in the factory stating the position of the "FirstAid" box or cupboards and the name of the person in charge of such box or cupboard.

6 (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 paragraphs 1, 2 and 4 and if chrome solutions are used in the factory, die contents of the notice specified in paragraph (3) as well.

7 2. Protective clothing: The occupier shall provide and maintain in good condition the following articles of protective clothing,

8 (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) Gloves and boots for persons employed in lime yard; and

(c) protective footwear, aprons and gloves for persons employed in the handling of hides or skins other than in processes specified in clause (a) and (b) above

Provided that the gloves, aprons, leg coverings or boots may be of rubber or leather, but the gloves and boots to be provided under clauses (a) (b) shall be of rubber:

Provided that the gloves shall may not be provided to persons flushing by hand or employed in, processes in which there is no risk of contact with lime, sodium sulphide or other caustic liquor.

1 3. Washing facilities, mess-room and cloakroom: There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed.

2 (a) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimetres 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 60 centimetres or 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 cleaning materials and clean towels;

3 (b) a suitable mess-room adequate for the number remaining on the premises during the meal intervals, which shall be furnished with sufficient tables and benches and adequate means for warming food and for boiling water: The mess-room shall,

4 (i) be separate from any room or shed in which hides or skins are stored, treated or manipulated;

5 (ii) be separate from the cloakroom, and

6 (iii) be placed under the charge of a responsible person: and

7 (c) suitable accommodation for the clothing not worn during working hours with adequate arrangements for drying the clothing, if wet.

The accommodation so provided shall be placed under the charge of a responsible person.

1 4. Food, drinks, etc. prohibited in work-rooms: No food, drinks, pan and supari or tobacco shall be brought into or consumed by any worker in any workroom or shed in which hides or skins are stored, treated or manipulated.

2 5. Medical facilities and records of examination and tests

3 (1) The occupier of every factory to which the schedule applies, shall,

(a) Employ a qualified medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories,
(b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a),
(c) arrange for an inspection of the hands of all persons keeping in contact with the chromium substances is to be made twice a week, and
(d) 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.
(2) The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Inspector.
6. Medical examination by Certifying Surgeon
(1) Every worker employed in any of the processes to which the Schedule applies shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include skin test for dermatitis and detection of anthrax bacillus from local lesion by gram

stain. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

Explanation: “First employment” shall mean first employment in any of the processes to which the schedule applies and shall also include re-employment in the said processes following any cessation of employment for a continuous period exceeding three calendar months.

1 (2) Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every twelve calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests as specified in sub-paragraph (1).

2 (3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 26. The record of examination and re-examination carried out shall be entered in the certificate and the certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.

3 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.

4 (5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record

1 of his findings in the said certificate and the Health Register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.

2 (6) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.

SCHEDULE X

PRINTING PRESSES AND TYPE FOUNDRIES AND CERTAIN LEAD PROCESS CARRIED ON THEREIN

1 1. Exemption: Where the Chief Inspector is satisfied that all or any of the provisions of this Schedule are not necessary for the protection of persons employed, he may, 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 2. Definitions: In these regulations

3 (a) "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 secure gas, vapour, fumes or dust at the point where they originate:

4 (b) "First employment" shall mean first employment in lead process and shall also include re-employment in the said manufacturing process following any cessation of employment for a continuous period exceeding three calendar months;

5 (c) "Lead material" means materials containing not less than five percent of lead; and

(d) “Lead process” means,

(i) the melting of lead or any lead material for casting and mechanical composing; and

(ii) the recharging of machines with used lead material, or

(iii) any other work including removal of dross from melting pots, cleaning of plungers;

(iv) manipulation, movement or other treatment of lead material.

3. Exhaust draught

(1) None of the following processes shall be carried on except with an efficient exhaust draught 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,

(a) Melting lead material or slugs; and

(b) Heating lead material so that vapour containing lead is given off.

(2) Such exhaust draught be effected by mechanical means and so contrived as to operate on the dust, fume, gas or vapour given off as closely as many be at the 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 process: 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 workroom near the machine except when the dross is being deposited therein.

7. Floor of workroom: The floor of every workroom 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 clean 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 60 centimetres 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 60 centimetres; or

i (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 and adequate supply of water laid on or always readily available; and

ii (b) a sufficient supply of clean towels made of suitable material renewed daily with a sufficient supply of soap or other suitable cleansing material.

iii 10. Medical facilities and records of examinations and test

iv (1) The occupier of every factory to which the Schedule applies, shall:

v (a) Employ a certified medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories: and

vi (b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).

vii (2) The record of medical examination and appropriate tests carried out by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

viii 11. Medical examination by Certifying Surgeon

ix (1) Every worker employed in a lead process shall be examined by a Certifying Surgeon within 15 days' employment. Such examination shall include tests for lead in urine and blood, ALA on urine-haemoglobin, stippling of cells and steadiness test. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

x (2) Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every six calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests as specified in sub-paragraph (1).

xi (3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 26. The record of examination and re-examinations carried out shall be entered in the certificate and the certificate shall be kept in the custody of the Manager of the factory. The record of such examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a Health Register in-Form 27.

xii (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.

xiii (5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the Health Register. The entry of his

1 findings in those documents should include the period for which he considers that the said person is unfit for work in the said processes.

2 (6) No person who has been found unfit to work as under sub-paragraph (5) above, shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.

3 12. Food, drinks, etc. prohibited in workrooms: No food, drink, pan and supari or tobacco shall be consumed or brought by any worker into any work-room in which any lead process is carried on.

59[SCHEDULE XI

DICHROMATE MANUFACTURE

1 1. Separation of certain processes: Processes as indicated below which give rise to noxious dust, fume, vapour or mist should be isolated from others end should either be totally enclosed or provided with hoods with suitable exhaust ventilation arrangements where necessary:

2 (i) Soda-mix section, including the place of storage of the mixed chromite soda-ash powder.

3 (ii) Reacted frit storing.

4 (iii) Frit dissolving.

5 (iv) Evaporation of the dischromate solution.

6 (v) Dichromate weighing and packing or otherwise handling of the dichromate powders.

7 2. Use of respirators: In operations, which are of shorter duration and in which mechanical exhaust is not practicable, the occupier shall provide respirators for the use of workers.

8 3. Protective equipment: There shall be provided for the use of all workers suitable footwear, gloves and aprons engaged in the following processes:

9 (a) Acidification.

10 (b) Concentration.

11 (c) Centrifugalization.

12 (d) Crystallization.

13 (e) Packing.

14 4. Floor of work-rooms: The floor of every workroom shall be:

15 (a) of impervious material and allow of easy drainage,

16 (b) maintained in sound condition,

(c) kept free from materials, plank or other obstruction not required for or produced, in the process carried on in the room.

5. Cloak-room: There shall be provided and maintained for the use of all persons employed in dichromate department a cloakroom for clothing put off during working hours.

6. Washing facilities: There shall be provided and maintained in a clean state and a good repair, for the use of all persons employed in dichromate process:

(a) trough with an 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, sufficient supply of soap or other suitable cleansing material and clean towels.

7. Medical requisites: The occupier shall provide and maintain a sufficient supply of suitable protective skin cream and nasal ointment, readily available to the workers engaged on dichromate processes at the discretion of the Certifying Surgeon.

1 8. Medical examination

2 (1) Every person employed in a dischromate process shall be examined by the Certifying Surgeon within fourteen days of his first employment in such processes and thereafter shall be examined by the Certifying Surgeon at intervals of not more than three months and a record of each examination shall be entered by the Certifying Surgeon in the Health Register in Form No. 17.

3 (2) A Health Register containing names of all persons employed in any dichromate process shall be kept in Form No. 17.

4 (3) If any time the Certifying Surgeon is of opinion that any person is no longer fit for employment on any dichromate process, on the ground that his continuance in such employment will involve special danger to his health he shall make an entry to this effect in the Health Register against the name of such person. No such person shall be employed on dichromate process without the written sanction of the Certifying Surgeon, entered in the Health Register.

5 9. Cautionary notices: Cautionary notices on the nature of health hazards involved together with the control measures for their protection shall be fixed at a prominent position of the factory.]

60[SCHEDULE XII

CHEMICAL WORKS

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

2 2. Definitions

3 (a) Chemical works means any factory or such parts of any factory as are named in sub-schedule A of this schedule.

4 (b) Breathing apparatus means (1) 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 the Chief Inspector.

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

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

7 (e) Surgeon means a Certifying Surgeon appointed under Section 10 of the Factories Act, 1948.

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

9 (g) Bleaching powder means the bleaching powder commonly called chloride of lime.

10 (h) Chlorate means chlorate or perchlorate.

11 (i) Caustic means hydroxide of potassium or sodium

12 (j) Caustic pot means a metal pot fixed over a furnace or flue and surrounded by brickwork, such as is commonly used for concentrating caustic liquor, whether such pot be used for concentrating or boiling caustic or other liquor.
13 (k) 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.
14 (l) Nitro or amino process means the manufacture of nitro or amino derivatives of phenol and of benzene or its homologues and the making of explosives with the use of any of these substances.

1 3. Exceptions: If the Chief Inspector is satisfied in respect of any factory or any process that, owing to the special conditions or special methods of work, or by reason of the infrequency of the process or for other reasons, all or any of the requirements of the provisions of the schedule 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 this schedule, subject to such conditions as he may by such order prescribe.

PART I
APPLYING TO ALL THE WORKS IN SUB-SCHEDULE A
GENERAL
1 1. House-keeping
2 (a) Every part of the ways, works, machinery and plant shall be maintained in a clean condition.
3 (b) Any spillage of material shall be cleaned up without delay.
4 (c) Floors, platforms, stairways, passages and gangways shall be kept free of temporary obstructions.
5 (d) There shall be provided easy means of access to all parts of the plant to facilitate cleaning, maintenance and repairs.
6 2. Improper use of chemicals
7 (a) No chemicals or solvents shall be used by workers for any purposes apart from the process for which they are supplied.
8 (b) Workers shall be instructed on the possible dangers arising from such misuse. These instructions shall further be displayed in bold letters in prominent places in the different sections.
9 3. Storage of food
10 (a) No food, drink, tobacco, pan or similar articles shall be stored or consumed on or near any part of the plant.
11 (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.
12 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 provision shall be made for dealing with any hazards including effects on workers, which may arise during manufacture. The design of the building and plant shall be based on the information so obtained.

1 5. Unauthorised personnel
2 (a) Unauthorised persons shall not be permitted to enter any section of the factory or plant where there are special dangers.
3 (b) Visitors: Visitors shall be provided, where necessary with suitable safety equipment and shall be accompanied round dangerous plant by a responsible official.
4 6. Instruments: All instruments such as pressure gauges, thermometres, flow metres and weighing machines shall be tested at regular intervals by a competent person, and records of these tests shall be kept in a register.
5 7. Cocks and valves: Suitable valves shall be provided in all service lines at sufficiently short intervals for convenience in blanking off, etc. All cocks and valves shall be operated at least once a month, and tested periodically by a competent person, and records of these tests shall be kept in a register. A plan of all service installations shall be kept readily available for perusal.
6 8. Manholes: No manholes shall be opened for entry until effective fencing has been erected round it.
7 9. Emergency instructions: Simple and special instructions shall be trained to ensure that effective measures will be carried out in cases of emergency to deal with escape 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 in the general hazards of their employment.
8 10. Protection of reaction mixtures: Suitable arrangements shall be made to ensure that no foreign matter of any sort can fall into reaction mixtures.
9 11. Electrical apparatus: Electrical plant, fittings and conductors shall, if exposed to a damp or corrosive atmosphere, be adequately protected. Periodic tests shall be carried out on all circuits.
10 12. Places of work
11 (a) Workers shall only be allowed in those places in which they have been given orders to work.
12 (b) In dangerous sections of a factory, the number of workers shall be kept to a minimum compatible with the process.
13 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 may be stored and transported in such a manner as to ensure that, in the event of spillage, they will neither produce a reacting mixture, nor cause the development of toxic chemicals or fire risk in contact with other products in its vicinity or with walls, floors or dust thereon.

FIRE AND EXPLOSION RISKS

1 14.

2 (a) Site: Buildings and plant shall be located with due regard to the dangers which may arise from the process involved, and in particular shall be spaced at distances which are deemed safe for the fire and explosive risks connected with the processes in adjacent buildings. Due consideration shall be given to the effect on any processes carried out in adjacent factories.

3 (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 distances apart and shielded to prevent damage to each other in the event of fire or explosion, and shall be safeguarded by the provision of suitable blowout panels or roofs. Where the risk of fire or explosion is considerable, the building shall be divided by blast or protective screen walls.

4 (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 floors shall be of impervious fire-resistant material and shall be regularly maintained in such condition.

5 15. Dangers of ignition (including building installation)

6 (a) No internal combustion engine and no electric motor or other electric equipment, capable of generating spark or otherwise causing combustion shall be installed or used in a building or danger zone. Electric conductors shall be fitted with screwed steel conduit.

7 (b) All hot exhaust pipes shall be installed outside a building and other hot pipes shall be suitably protected.

8 (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 flames proof type.

9 (d) Where an inflammable atmosphere may occur the soles of footwear worn by workers shall have no metal on them, and the wheels of trucks or conveyers shall be of conducting non-sparking materials. Adequate precautions shall be taken to prevent the ignition of explosive or inflammable substances by sparks emitted from locomotives or other vehicles operated in the factory or on public lines.

10 (e) No electric arc lamps 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 a naked light or sparking 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 airtight 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 lights and the carrying of matches or any apparatus for producing a naked light or spark, shall he affixed at the entrance of every room or place where there is the risk of fire or explosion from inflammable gas, vapour or dust. In the case of illiterate workers, the contents of the notices shall be fully and carefully explained to them when they commence work in the factory for the first time and again when they have completed one week at the factory.

(g) Non-sparking tool: 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 tank.

16. Static electricity

(a) All machinery and plant, particularly pipelines 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 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) Lightning conditions: Lightning protection apparatus shall be fitted where necessary and shall be maintained in good condition.

17. Process heating: The method of 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 another 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) Provisions shall be made in all 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 explosions, 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 effluent 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 vessels containing inflammable liquids.

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

20. Cleaning of empty containers

(a) All empty containers which have held inflammable liquids, and metal containers which have held sulphuric acid shall be rendered permanently safe as soon as practicable, and shall not be repaired or destroyed until such cleaning has been completed.

(b) Storage of combustible 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 buildings 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 pipelines for inflammable liquids: All pipelines for the transport of inflammable liquids shall be protected from breakage, shall be arranged so that there is no risk of mechanical damage from vehicles and shall be so laid that they drain throughout without the collection of any part. All flanged joints, bends and other connections shall be regularly inspected. Cocks and valves shall be so constructed that explosive residues do not get accumulated 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 pipelines and high or low temperature insulting materials, shall not contain materials which are combustible or which react with the products of the plant.
23. Safety valves: Every still and every closed vessel in which gas is produced 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 this schedule 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.

1 26. Alarm system
2 (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.
3 (b) The amount of inflammable material taken into a building in bulk containers at any one time shall be kept as low as practicable.
4 (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

1 27. Escape of gases, etc.: Effective steps shall be taken to prevent the escape of dangerous gases, vapour, 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 a failure of the control measure, the process shall stop immediately. Further arrangements shall be made to ensure that in case there is any such escape, the material shall be trapped forthwith so that the danger may be averted.
2 28. Danger due to effluents
3 (a) Adequate precautions shall he taken to prevent the mixing of effluents which may produce dangerous or poisonous gases.

4 (b) Effluents, which may contain or give rise in the presence of other effluents to such gases, shall be provided with independent drainage systems to ensure that they may be trapped and rendered safe.
5 29. Staging
6 (a) Staging shall not be erected over any open vessel unless the vessel is so constructed and ventilated as to prevent the omission of vapour or fumes about such staging.
7 (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.
8 (c) Such staging shall be fitted with suitable handrails and toeboards, and the floors and staging shall be impervious and easily cleaned.
9 30. Instructions as regards risk: Before commencing work, every worker shall be fully instructed on the properties of the materials they have to handle, and of the dangers arising from any gas, fume, vapour or dust which may be evolved during the process. Workers shall also be instructed in the measures to be taken to cope with any emergency.
10 31. Breathing apparatus

(a) There shall be provided in every factory where dangerous gas or fume is liable to escape a sufficient supply of:
(i) breathing apparatus of an approved make for the hazards involved;
(ii) oxygen and suitable means of its administration; and
(iii) life-belts.

The breathing apparatus and other appliances required by this schedule shall (i) be maintained in good order and kept in an ambulance room or in some other place approved in writing by the Chief Inspector, and (ii) be thoroughly inspected once every month by a competent person, appointed in writing by the occupier, and 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 wherever required in writing by the Chief Inspector there shall be affixed the official cautionary notice regarding gasing and burns. Such notices 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 system containing such fluids if pressure is likely to exist behind those chokes,
(ii) when there is danger of injury 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 objects, and
(iv) when there is the risk of poisonous material being carried away on their clothes.
(b) There shall be provided for the use of all persons employed in the processes specified in sub-schedule B of this schedule an 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 sub-schedule B of this schedule a 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 accommodations
(a) There shall be provided for the use of all persons employed in the processes specified in sub-schedule C of this schedule separate sanitary conveniences, and sufficient and suitable bathing facilities which shall be to the satisfaction of the Chief Inspector.
(b) A bath register shall be kept containing the names of all persons employed in these processes and an entry of the date when each person takes a bath.
36. Entry into vessels
(a) Before any person enters, for any purposes except that of rescue, any absorber, boiler, culvert, drain, flue, gas purifier, sewer, still tank, tower, vitriol chamber or other place where there is a 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 and 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 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 have been thoroughly cleaned and ventilated. When opening vessels and breaking joints in

1 pipelines, respirators, goggles and protective clothing shall be worn to the extent required by the competent person.
2 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 material. A passage-way shall be provided and kept free from obstruction between every four rows of such carboys. An ample supply of water shall be available for washing away spilt acid and all precautions shall be taken to prevent workers being exposed to fumes.

CORROSIVE OR DELETERIOUS RISK

1 39. Buildings: All buildings and. plants shall be located with due regard to possible dangers from accidental liberation or splashing or 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.
2 40. Leakage
3 (a) All plants shall be so designed and constructed as to obviate the escape of corrosive liquid. Where necessary, separate buildings, room or protective structures shall be used for the dangerous stages of the process and the buildings shall be so designed as to localize any escape of liquid.
4 (b) Catch-pits, bund walls or other suitable precautions shall be provided to restrict the serious effects of such leakages. catch-pits shall be placed below joints in pipelines where there is danger involved from such leakage.
5 (c) Passages and work station shall not be situated directly below any part of plant where there is risk of escape of dangerous liquid. Access to such parts shall, so far as practicable, be prohibited and danger notices shall be affixed at suitable points.
6 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.
7 42. Drainage: Adequate drainage shall be provided and shall lead to special treatment tanks where deleterious materials shall be neutralized or otherwise rendered safe before it is discharged into ordinary drains or sewers.
8 43. Covering of vessels
9 (a) Every fixed vessel or structure containing any dangerous materials, 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 or platform be securely fenced to a height of 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 any surrounding brick or other work, is either less than 18 inches in width or is 18 or more inches in width, but is not securely fenced on both sides to a height of at least three feet, secure barrier shall be so placed as to prevent passage between them:

Provided that sub-paragraph (b) above shall not apply to,

i (i) Saturators used in the manufacture of sulphate of ammonia,

ii (ii) that part of the sides of brine evaporating pans which require raking, drawing or filling.

iii 44. Ventilation: Adequate ventilation shall be provided and maintained at all times in rooms or buildings where dangerous gas, vapour, fume or dust may be evolved.

iv 45. Means of escape: Adequate means of escape from rooms or buildings in the event of a leakage of corrosive liquid shall be provided and maintained.

v 46. Treatment of personnel: In all places where (strong acids or dangerous) corrosive liquids are used:

vi (a) There shall be provided for use in an emergency,

vii (i) adequate and readily accessible means of drenching with cold water persons, and the clothing of persons, who have become splashed with such liquids;

viii (ii) adequate special arrangements to deal with any person who has been splashed with poisonous material that can be absorbed through the skin;

ix (iii) a sufficient number of eyewash 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.

x (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.

xi 47. Maintenance

(a) Before any examination or repairs are carried out on plant or pipelines, a competent person shall issue a clearance certificate permitting such examination or repairs.

(b) Adequate precaution shall be taken to liberate any pockets of gas or liquid which may have been formed in pipelines and which may cause corrosive spray at the point where dismantling takes place.

48. Washing facilities

(1) There shall be provided and maintained in every factory for the use of employed persons adequate and suitable facilities for washing which shall include soap and nail brushes or other suitable means of cleaning and facilities shall be conveniently accessible and shall be kept in a clean and orderly condition.

(2) If female workers are employed, s6parate washing facilities shall be provided and so enclosed or screened that the interiors are not visible from the 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 mess-room or canteen accommodation which shall be furnished with sufficient tables and chairs or benches with back rests and where sufficient drinking water is available.

50. Ambulance room

(a) In every factory in which more than 250 persons are employed on the processes to which this schedule applies. 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 sub-schedule D. 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 treatment 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 the removal of serious cases of accident of sickness unless arrangements have been made with a hospital or other place in telephonic communication with the factory for obtaining such a carriage immediately when required.

1 51. Medical personnel: There shall be a wholetime medical officer in every factory employing 250 persons or more.

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

3 (i) Hexaethyl tetra phosphate.

4 (ii) Tetraethyl pyrophosphate.

5 (iii) O.O. Diethyl 0-P nitrophynyl thiophosphate (Parathion).

6 (iv) Nicotine, nicotine sulphate.

7 (v) Mercury derivatives.

8 (vi) Methyl bromide.

9 (vii) Cyanides.

10 (viii) Arsenical derivatives.

11 (ix) Chrome process compounds.

12 (x) Nitro or amino process compounds.

13 (a) A Health Register containing the names of all workers so engaged shall be kept in a form approved by the Chief Inspector.

14 (b) No person shall be so engaged newly for more than fourteen days without a Certificate of Fitness granted after examination by the Certifying Surgeon, by a signed entry in the Health Register.

15 (c) Every person so engaged newly shall present himself at the appointed time for examination by the Certifying Surgeon as provided in (b) above

16 (d) The Certifying Surgeon shall have power of suspension as regards all persons so engaged and no persons after suspension shall be so engaged without written sanction from the Surgeon entered in the Health Register.]
17 53. Duties of workers: Every person employed shall,
18 (a) report to his foreman any defect in any fencing, breathing apparatus, appliances or other requisite provided in pursuance of this schedule as soon as he becomes aware of such defect;
19 (b) use the articles, appliances or accommodation required by this schedule for the purpose for which they are provided;
20 (c) wear the breathing apparatus and life-belt where required under paragraph 36(a) and (b) above.
21 54.

(a) No person shall remove any fencing provided in pursuance of paragraph 43 unless duly authorised; or
(b) stand on the edge or on the side of any vessel to which paragraph 43 applies;
(c) pass or attempt to pass any barrier created in pursuance of paragraph 43;
(d) place across or inside any vessel to which paragraph 43 applies, any plank or gangway which does not comply with that Regulation or make use of any such plank or gangway while in such position;
(e) take a naked light or any lamp or matches or any apparatus for producing a naked light or spark into or smoke in, any part of the works where there is liability to explosion from inflammable gas, vapour or dust;
(f) use a metal spade, scraper or pail when cleaning out- or removing the residues from any chamber, still tank, or other vessel wherein were contained sulphuric acid or hydrochloric acid or other substance which might cause evolution of arseniuretted hydrogen; and
(g) remove from a first aid box or cupboard or from the Ambulance Room any first aid appliance or dressing except for the treatment of injuries in the works.

SUB-SCHEDULE "A"
"CHEMICAL WORK" MEANS ANY WORK OR PART OF A WORK IN WHICH
1 1. The manufacture or recovery of any of the following is carried on:
2 (a) Carbonates, chromates, chlorates, oxides or hydroxides or potassium, sodium, iron, aluminium, cobalt, nickle, arsenic, antimony, zinc or magnesium;
3 (b) Ammonium and the hydroxide and salts of ammonium;
4 (c) Sulphurous, sulphuric, nitric, hydrochloric, hydro-fluoric, hydriodic, hydrosulphuric, boric, phosphoric, oxalic, arsenious, arsenic, lactic, acetic, tartaric or citric acids and their metallic or organic salts; and
5 (d) Cyanogen compounds.
6 2. A wet process is carried on:
7 (a) for the extraction of metal from one or from any by-product or residual material; or
8 (b) in which electrical energy is used in any process of chemical manufacture.
9 3. Alkali waste or the drainage therefrom is put to any chemical process for the recovery of sulphur or for the utilisation of any constituent of such waste or drainage.

10 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.
11 5. Bleaching powder is manufactured or chlorine gas is made or is used in any process of chemical manufacture.

1 6.
2 (a) Gas tar or coal tar or any compound product or residue of such tars is distilled or is used in any process of chemical manufacture.
3 (b) Synthetic colouring matters for their intermediates are made.
4 7. Refining of crude shale oil or any process incidental thereto is carried out.
5 8. Nitric acid is used in the manufacture of nitro compounds.
6 9. Explosives are made with the use of nitro compounds.
7 10. Insecticides which may be phosphorous, nicotine, mercury, naphthalene, cyanogen, arsenic, flourine, copper, benzene and ethane compounds or derivative and methyl bromide are manufactured, mixed, blended and packed.

SUB-SCHEDULE "B"
1 1. A nitro or amino process (overalls or suits or working clothes and protective footwear).
2 2. Grinding raw materials in a chrome process (overall suits).
3 3. The crystal department and in packing a chrome process (protective coverings).
4 4. Packing in a chrome process (respirators).
5 5. Any room or place in which chlorate is crystallised, ground or packed (clothing of woollen materials and boots or overshoes, the soles of which have no metal on them).
6 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 7. Bleaching powder chambers or in packing charges drawn from such chambers (suitable respirators).
8 8. Drawing off of molten sulphur from sulphur pots in the process of carbon disulphide manufacture (overalls, face-shield, gloves and footwear of fire-proof materials).
9 9.
10 (a) Manufacture, mixing, blending and packing of insecticides which are phosphorous, nicotine, naphthalene, cyanogen, arsenic, fluorine, mercury and copper compounds or derivatives and methyl bromide (rubber, aprons, chemical type goggles and suitable respirators and in addition rubber gloves and boots for phosphorous and nicotine derivatives, synthetic rubber aprons, gloves and boots when working with oil solutions and washable, working clothing laundered daily).
11 (b) Manufacture, mixing, blending and packing of insecticides which are derivatives of benzene or ethalene (rubber aprons and suitable respirators, separate work clothes laundered frequently).

SUB-SCHEDULE "C"
1 1. A nitro or amino process.
2 2. The crystal department and the packing room in a chrome process.

3 3. The process of distilling, gas or coaltar (other than blast furnace tar) and any process of chemical manufacture in which such tar is used.

4 4. The manufacture, mixing, blending and packing of I. the insecticides mentioned in sub-schedule "A".

SUB-SCHEDULE "D"

i (i) A glazed sink with hot and cold water always available;
ii (ii) a table with a smooth top;
iii (iii) means for sterilising instruments;
iv (iv) a couch;
v (v) a stretcher;
vi (vi) two buckets or containers with close fitting lids;
vii (vii) two rubber hot water bags;
viii (viii) a kettle and spirit stove or other suitable means of boiling water;
ix (ix) twelve plain wooden splints 36" x 4" x 1/4";
x (x) twelve plain wooden splints 4" x 3" x 1/4";
xi (xi) six plain wooden splints, 10" x 2" x 1/2";
xii (xii) three woollen blankets;
xiii (xiii) one pair artery forceps;
xiv (xiv) one bottle of brandy;
xv (xv) two medium size sponges;
xvi (xvi) three hand towels;
xvii (xvii) two kidney trays;
xviii (xviii) four carbolic soaps;
xix (xix) two glass tumblers and two wine glasses;
xx (xx) two clinical thermometres;
xxi (xxi) graduated measuring glass with teaspoon;
xxii (xxii) one eyebath;
xxiii (xxiii) one bottle (2 lb.) carbolic lotion, 1 in 20;
xxiv (xxiv) two chairs;

i (xxv) one screen;
ii (xxvi) one electric hand torch;
iii (xxvii) an adequate supply of anti-tetanus serum; and
iv (xxviii) two first aid boxes, each containing:
v (a) 24 small sterilized dressings;
vi (b) 12 medium size sterilized dressings;
vii (c) 12 large size sterilized dressings;
viii (d) 12 large size sterilized burn dressings;
ix (e) 12 half ounce packets sterilized cotton wool;
x (f) one snake bite lancet;
xi (g) one pair scissors;
xii (h) two (1 oz.) bottles of potassium permanganate crystals;
xiii (i) one (4 oz.) bottle containing a two per cent alcoholic solution of iodine;

xiv (j) one (4 oz.) bottle of salvolatile having the dose and mode of administration indicated on the label;
xv (k) a copy of the first aid leaflet issued by the Chief Advisor of Factories, Government of India.

PART II
Applying to work or parts thereof in which:
i (i) Caustic pots are used; or
ii (ii) Chlorate of bleaching powder is manufactured; Or
iii (iii)
iv (a) gas tar or coaltar is distilled or is used in any process of chemical manufacture; or
v (b) nitro or amino process is carried on; or
vi (c) a chrome process is carried on; or
vii (iv) crude shale Oil is refined or processes incidental thereto are carried on; or
viii (v) nitric acid is used in the manufacture of nitro compounds;
ix (vi) the evaporation of brine in open pans and the stoving of salt are carried on;
x (vii) the manufacture or recovery of hydroflouric acid or any of its salts is carried on;
xi (viii) work at a furnace where the treatment of zinc ores is carried on; and

i (ix) insecticides mentioned in sub-schedule "A" are manufactured, mixed, blended or packed.
ii 1. Entry into gas tar or coaltar still: Before any person enters a gas tar or coaltar still for any purpose except that of rescue, it shall be completely isolated from adjoining tar stills, either by disconnecting:
iii (a) the pipe leading from the swan neck to the condenser worm; or
iv (b) the waste gas pipe fixed to the worm or receiver;

and in addition, blank flanges shall be inserted between the disconnected parts, and the pitch discharge pipe or cock at the bottom of the still shall be disconnected.
1 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:
2 (i) the chamber is efficiently ventilated; and
3 (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.,
1 3. Special precautions for nitro and amino processes: In nitro or amino process:
2 (a) if crystallised substances are broken or any liquor agitated by hand, means shall be taken to prevent as far as practicable, the escape of dust or fume into the air of any place in which any person is employed. The handles of all implements used in the operations shall be cleaned daily;
3 (b) cartridges shall not be filled by hand except by means of a suitable scope;

4 (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;
5 (d) no person shall enter a stove to remove the contents until a free current of air has been passed through it;
6 (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 the boiling water, be covered in such a way that steam of vapour shall be discharged into the open air at a height of not less than 25 feet from the ground or the working platform, and at a point where it cannot be blown back again into the workroom.
7 4. Precautions during caustic grinding, etc.:
8 (a) Every machine used for grinding or crushing caustic shall be enclosed; and

(b) where any of the following processes are carried on:
(i) grinding or crushing of caustic;
(ii) packing of ground caustic;
(iii) grinding, sieving, evaporating or packing in a chrome process;
(iv) crushing or mixing of material or cartridge filling in a nitro or amino process, an efficient exhaust draught shall be provided;
(v) insecticides mentioned in sub-schedule "A" are manufactured, mixed, blended, or packed.
5.
(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 cleaned 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.
1 6. Restrictions on the employment of young persons and women:
2 (a) No person under 18 years of age and women shall neither be employed in any process in which hydrochloric acid fumes or ammonical vapours are given off from the following operations,
3 (i) evaporation of brine in open pans;
4 (ii) stoving of salt;
5 (iii) work at a furnace where the treatment of zinc is carried on; and
6 (iv) the cleaning of workrooms where the process mentioned in (iii) is carried on.
7 (b) No person under 18 years of age shall be employed in a chrome process or in nitro or amino process or in a process in which the following materials are used or where the vapour of such material is given off:

Carbon bisulphide, chlorides of sulphur, benzene, carbon tetrachloride trichlora-thlene, any carbon chloride compound, or any mixture containing any of each materials.
1 7. Every person employed,

2 (a) in a process to which paragraph 33 of this schedule applies shall wear the protective clothing, footwear, respirators, goggles or gloves, provided under paragraph 33 and shall deposit overall or suit, or working clothing

so provided as well as clothing put off during working hours, in the places provided under paragraph 34;
(b) in processes to which paragraph 35 applies shall carefully wash the hands and face before partaking of any food or leaving the premises;
(c) in any process to which Part II of this schedule applies shall use the protective appliances supplied in respect of any process in which he is engaged.

61[SCHEDULE XIII

MANUFACTURE OR MANIPULATION OF CARCINOGENIC DYE INTERMEDIATES APPLICATION

1 1. Application: The schedule shall apply in respect of all factories or any part thereof where processes in which the substances mentioned in paragraphs 3 and 4 are formed, manufactured, handled, or used and the processes incidental thereto in the course of which these substances are formed, are carried on. The processes indicated in this paragraph shall be referred to hereinafter as "the said processes" and such a reference shall mean any or all of the processes described in this paragraph.

2 2. Definitions: For the purpose of this schedule the following definitions shall apply, unless the context otherwise requires:

3 (a) "Controlled Substances" means chemical substances mentioned in paragraph 4 of this schedule.

4 (b) "Efficient exhaust draught" means localised ventilation effected by 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 to be efficient which fails to remove smoke generated at the point where such gas, vapour, fume or dust originated.

5 (c) "First Employment" means first employment in the said processes and also re-employment in such processes following any cessation of employment for a continuous period exceeding three calendar months; and

6 (d) "Prohibited Substances" means chemical substances mentioned in paragraph 3 of this schedule.

7 3. Prohibited substances: For the purpose of this schedule, the following chemical substances shall be classified as "prohibited substances" except when these substances are present or are formed as a by-product of a chemical reaction in a total concentration not exceeding one percent:

8 (a) Beta-naphthylamine and its salts;

9 (b) Benzidine and its salts;

10 (c) 4-amino diphenyl and its salts;

(d) 4-nitro diphenyl and its salts; and
(e) any substance containing any of these compounds.

4. Controlled substances: For the purpose of this schedule, the following chemical substances shall be classified as "controlled substances",
(a) Alpha-naphtylamine or alphanapthylamine containing not more than one per cent of beta-naphthylamine either as a by-product of chemical reaction or otherwise, and its salts;
(b) Ortho-tolidine and its salts;
(c) Dianisidine and its salts;
(d) Dichlorobanzidine and its salts;
(e) Auramine; and
(f) Magneta.
5. Prohibition of employment: No person shall be employed in the said processes in any factory in which any prohibited substance is formed, manufactured, processed, handled, or used except as exempted by the Chief Inspector of Factories as stipulated in paragraph 23.
6. Requirements for processing or handling controlled substances,
(1) Wherever any of the controlled substances referred to in paragraph 4 are formed, manufactured, processed, handled, or used, all practical steps shall be taken to prevent inhalation, ingestion or absorption of the said controlled substance by the workers while engaged in processing that substance, and its storage or transport while the plant, or in cleaning or maintenance of the concerned equipment, plant, machinery and storage areas.
(2) As far as possible all operations shall be carried out in a totally enclosed system. Wherever such enclosure is not possible, efficient exhaust draught shall be applied at the point where the controlled substances are likely to escape into the atmosphere during the process.
(3) The controlled substances shall be received in the factory in tightly closed containers and shall be kept so except when these substances are in process or in use. The controlled substances shall leave the factory only in tightly closed containers of appropriate type. All the containers shall be plainly labelled to indicate the contents.
7. Personal protective equipment
(1) The following items of personal protective equipment shall be provided and issued to every worker employed in the said processes:
(a) Long trousers and shirts or overalls with full sleeves and head coverings. The shirt or overalls shall cover the neck completely.

(b) Rubber gumboots.
(2) The following items of personal protective equipment shall be provided in sufficient numbers for use by workers employed in the said processes when there is danger of injury during the performance of normal duties or in the event of emergency:
(a) Rubber hand-gloves;
(b) Rubber aprons;
(c) Airline respirators or other suitable respiratory protective equipment.
(3) It shall be the responsibility of the manager to maintain all items of personal protective equipment in a clean and hygienic condition and in good repair.
8. Prohibition relating to employment of women and young persons: No woman or young person shall be employed or permitted to work in any room in which the said processes are carried on.

9. Floors of workroom: The floor of every room in which the said processes are carried on shall be:
(a) smooth and impervious to water provided that asphalt or tar shall not be used in the composition of the floor;
(b) maintained in a state of good repair;
(c) with a suitable slope for easy draining and provided with gutters; and
(d) thoroughly washed daily with the drain water being led into sewer through a closed channel.
10. Disposal of empty containers: Empty containers used for holding controlled substances shall be thoroughly cleaned of their contents and treated with an inactivating agent before being discarded.
11. Manual handling: Controlled substances shall not be allowed to be mixed, filled, emptied or handled except by means of a scoop with a handle. Such scoop shall be thoroughly cleaned daily.
12. Instructions regarding risk: Every worker on his first employment in the said • processes shall be fully instructed on the properties of the toxic chemicals which he is likely to be exposed to, of the danger involved and the precautions to be taken. Workers shall also be instructed on the measures to be taken to deal with an emergency.
13. Cautionary placards: Cautionary placards in the form specified in Appendix attached to this Schedule and printed in the language of the majority of the workers employed in the said processes shall be affixed in prominent places frequented by them in the factory, where the placards can be easily and conveniently read. Arrangements shall be made by the manager to instruct periodically all such workers regarding the precautions contained in the cautionary placards.

1 14. Medical examination
2 (1) Every worker employed in the said processes shall be examined by a Certifying Surgeon within 14 days of his first employment. Such examination shall include tests which the Certifying Surgeon may consider appropriate and shall include exfoliative cytology of the urine. No worker shall be allowed to work after 14 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
3 (2) Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once every six calendar months. Such examination shall include tests which the Certifying Surgeon may consider appropriate but shall include exfoliative cytology of the urine.
4 (3) A person medically examined under sub-paragraph (1) shall be granted by a Certifying Surgeon a Certificate of Fitness in Form 26. Record of each re-examination carried out under sub-paragraph (2) shall be entered in the certificate. The certificate shall be kept in the custody of the manager of the factory.
5 (4) The record of each examination carried out as referred to in sub-paragraphs (1) and (2) including the nature and the results of the test shall be entered by the Certifying Surgeon in a Health Register in Form 27.
6 (5) The certificates of fitness and the Health Register shall be kept readily available for inspection by any Inspector.

7 (6) If at any time the Certifying Surgeon is of the opinion that a person is no longer fit for employment in the said processes or in any other work on the ground that continuance therein would involve damage to his health, he shall make a record of his findings in the said certificate and the Health Register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit for work in the said processes or in any work as the case may be.
8 (7) No person who has been found unfit to work as said in sub-paragraph (6) shall be re-employed or permitted to work unless the Certifying Surgeon, after further examination, again certifies him to be fit for employment.
9 15. Medical facilities
10 (1) The occupier of every factory in which the said processes are carried on shall engage a qualified medical practitioner for medical surveillance of the workers employed in such process. His appointment shall be subject to approval of the Chief Inspector of Factories.
11 (2) The occupier shall provide to him all the necessary facilities for the purpose referred to in sub-paragraph (1).

1 (3) A record of medical examinations and appropriate tests carried out by the qualified medical practitioner shall be maintained in a form approved by the Chief Inspector.
2 16. Obligations of the workers: It shall be the duty of the persons employed in the said processes to submit themselves for the medical examination including exfoliative cytology of urine by the Certifying Surgeon or the qualified medical practitioner as provided for under these rules.
3 17. Washing and bathing facilities
4 (1) The following washing and bathing facilities shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the said processes:
5 (a) A wash place under cover having constant supply of water and provided with clean towels, soap and nail brushes and with at least one standpipe for every five such workers.
6 (b) 50 per cent of the standpipes provided under clause (a) shall be located in bathrooms where both hot and cold water shall be made available during the working hours of the factory and for one hour thereafter.
7 (c) The washing and bathing facilities shall be in close proximity of the area housing the said processes.
8 (d) Clean towels shall be provided individually to such worker.
9 (e) In addition to the taps mentioned under clause (a), one standpipe in which warm water is made available shall be provided on each floor.
10 (2) Arrangement shall be made to wash factory uniforms and other work clothes every day.
11 18. Food, drink, etc. prohibited in workroom: No worker shall consume food, drink, pan, supari or tobacco or shall smoke in any workroom in which the said processes are carried on and no worker shall remain in any such room during intervals for meals or rest.
12 19. Cloak-room: There shall be provided and maintained in a clean state and in good repair for the use of the workers employed in the said processes,
13 (a) a cloak-room with lockers having two compartments—one for street, clothes and the other for work clothes; and

14 (b) a place separate from the locker room and the mess-room for the storage of protective equipments provided under paragraph 7.

The accommodation so provided shall be under the care of responsible person and shall be kept clean.

1 20. Mess-room: There shall be provided and maintained for the use of workers employed in the said processes who remain on the premises during the meal intervals, mess-

1 room which shall be furnished with tables and benches and provided with suitable means for warming food.

2 21. Time allowed for washing: Before the end of each shift 30 minutes shall be allowed for bathing of each worker who is employed in the said processes. Further at least 10 minutes shall be allowed for washing before each meal in addition to the regular time allowed for meals.

3 22. Restriction on age of persons employed: No worker under the age of 40 years shall be engaged in the factory in the said processes for the first time after the date on which the schedule comes into force.

4 23. Exceptions Prohibited substances

5 (1) The Chief Inspector of Factories may by a certificate in writing (which he may at his discretion revoke at any time), subject to such conditions if any, as may be specified therein, exempt any process in the course of which any of the prohibited substances are formed, processed, manufactured, handled, or used from the provisions of paragraph 5 if he is satisfied that the process is carried out in a totally enclosed and hermetically sealed system in such a manner that the prohibited substance is not removed from the system except in quantities not greater than that required for the purpose of control of the process or such purposes as is necessary to ensure that the product is free from any of the prohibited substances.

6 (2) The Chief Inspector of Factories may allow the manufacture, handling or use of benezidine hydrochloride provided that all the processes in connection with it are carried out in a totally enclosed system in such a manner that no prohibited substance other than benezidine hydrochloride is removed therefrom except in quantities not greater than that required for the purpose of control of processes or such purposes as in necessary to ensure that the product is free from prohibited substances and that adequate steps are taken to ensure that benezidine hydrochloride is except while not in a totally enclosed system, kept wet with not less than one part of water to two parts of benezidine hydrochloride at all times.

7 24. Exception General: If in respect of any factory, the Chief Inspector of Factories is satisfied that owing to the exceptional circumstances of infrequency of the processes or for any other reason, all or any of the provisions of this schedule are not necessary for the protection of the workers in the factory, the Chief Inspector of Factories may by a certificate in writing (which he may in his discretion revoke at any time) exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

APPENDIX

Cautionary PlacardNotice

1 1. Dye intermediates which are nitro or amino derivatives or aromatic hydrocarbons are toxic. You have to handle these chemicals frequently in this factory.
2 2. Use the various items of protective wear to safeguard your own health.
3 3. Maintain scrupulous cleanliness at all times thoroughly wash hands and feet before taking meals. It is essential to take a bath before leaving the factory.
4 4. Wash off any chemicals falling on your body with soap and water. If splashed with a solution of the chemical, remove the contaminated clothing immediately. These chemicals are known to produce cyanosis. Contact the medical officer or appointed doctor immediately and get his advice.
5 5. Handle the dye intermediates only with long handled scoops, never with bare hands.
6 6. Alcoholic drinks should be avoided as they enhance the risk of poisioning by the chemicals.
7 7. Keep your food and drinks away from workplace. Consuming food, drinks or tobacco in any form at the place of work is prohibited.
8 8. Serious effect from work with toxic chemicals may follow after many years. Great care must be taken to maintain absolute cleanliness of body, clothes, machinery and equipments.]

62[SCHEDULE XIV

MANUFACTURE HANDLING AND USAGE OF BENZENE
AND SUBSTANCES CONTAINING BENZENE

1 1. This Schedule is made to provide protection against hazards of poisoning from benzene and shall apply in respect of factories or parts thereof in which benzene or substances containing benzene are manufactured, handled or used.
2 2. Definitions: For the purpose of this Schedule,
3 (a) “substances containing benzene” means substances wherein benzene content exceeds 1 percent by volume;
4 (b) “substitute" means a chemical which is harmless or less harmful than benzene and can be used in place of benzene;
5 (c) “enclosed system” means a system which will not allow escape of benzene vapours to the working atmosphere ; and
6 (d) “efficient exhaust draught” means localised ventilation effected by mechanical means for the removal of gases, vapours and dusts or fumes so as to prevent them from escaping into the air of any workroom. No draught shall be deemed to be efficient if it fails to remove smoke generated at the point where such gases, vapours, fumes or dusts originate.
7 3. Prohibition and substitution

1 (1) Use of benzene and substances containing benzene is prohibited in the following processes:
2 (a) manufacture of varnish, paints and thinners ;
3 (b) cleaning and degreasing operations.
4 (2) Benzene or substances containing benzene shall not be used as a solvent or diluent unless the processes in which it is used is carried or in an enclosed system or unless the processes are carried on in a manner which is considered equally safe as it were carried out in an enclosed system.

(3) Where suitable substitutes are available, they shall be used instead of benzene or substances containing benzene. This provision, however, shall not apply to the following processes:

(a) Production of benzene ;

(b) Process where benzene is used for chemical synthesis ; and

(c) Motor spirits (use and fuel).

(4) The Chief Inspector may, subject to confirmation by the State Government, permit exemptions from the percentage laid down in Paragraph 2(a) and also from the provisions of subparagraph (2) of this paragraph temporarily under conditions and within limits of time to be determined after consultation with the employers and workers concerned.

4. Protection against inhalation

(1) The process involving the use of benzene or substances containing benzene shall as far as practicable be carried out in an enclosed system.

(2) Where, however, it is not practicable to carry out the process in an enclosed system, the workroom in which benzene or substances containing benzene are used shall be equipped with an efficient exhaust draught or other means for the removal of benzene vapours to prevent their escape into the air or the workroom so that the concentration of benzene in the air does not exceed 25 parts per million by volume or 80 milligrams per cubic metre.

(3) Air analysis for the measurements of concentration of benzene vapours in air shall be carried out every 8 hours or at such intervals as may be directed by the Chief Inspector at places where process involving use of benzene is carried on and the results of such analysis shall be recorded in a register specially maintained for this purpose. If the concentration of benzene vapours in air as measured by air analysis, exceed 25 parts per million by volume or 80 milligrams per cubic metre, the Manager shall forthwith report the concentration of the Chief Inspector stating reasons for such increase.

(4) Workers who for special reasons are likely to be exposed to concentration of benzene in the air or the workroom exceeding the maximum referred in

subparagraph (2) shall be provided with suitable respirators face masks. The duration of such exposure shall be limited as far as possible.

5. Measures against skin contact

(1) Workers who are likely to come in contact with liquid benzene or liquid substance containing benzene shall be provided with suitable gloves, aprons, boots and where necessary vapour tight chemical goggles, made of material not affected by benzene or its vapours.

(2) The protective wear referred to in subparagraph (i) shall be maintained in good condition and inspected regularly.

6. Prohibition relating to employment of women and young persons: No woman or young person shall be employed or permitted to work in any workroom involving exposure to benzene or substances containing benzene.

7. Labelling: Every container holding benzene or substances containing benzene shall have the word "Benzene" and approved danger symbols clearly visible on it and shall also display information on benzene content warning about toxicity and warning about inflammability of the chemical.

8. Improper use of benzene

8 (1) The use of benzene or substances containing benzene by workers for cleaning their hands or their work clothing shall be prohibited.
9 (2) Workers shall be instructed on the possible dangers arising from such misuse.
10 9. Prohibition of consuming food, etc., in workroom: No worker shall be allowed to store or consume food or drink in the workroom in which benzene or substances containing benzene are manufactured, handled or used. Smoking and chewing tobacco or pan shall be prohibited into such workrooms.
11 10. Instruction as regards risks: Every worker on his first employment shall be fully instructed on the properties of benzene or substances containing benzene which he has to handle and of the dangers involved. Workers shall also be instructed on the measure to be taken to deal with an emergency.
12 11. Cautionary notices: Cautionary notices in the form specified in Appendix 'A' and presented in the language easily read and understood by the majority of the workers shall be displayed in prominent places in the workrooms where benzene or substances containing benzene are manufactured, handled or used.
13 12. Washing facilities cloak room and mess-rom: In factories in which benzene or substances containing benzene are manufactured, handled or used the occupier shall provide and maintain in clean state and in good repair,

(1) Washing facilities under cover of the standard of at least one tap for every 10 persons having constant supply of water with soap and a clean towel provided individually to each worker if so ordered by the Inspector ;

(2) A cloak room with lockers for each worker, having two compartments one for street clothing and one for work clothing; and
(3) A mess-room furnished with tables and benches with means for warming food, provided that where a canteen or other proper arrangements exist for the workers to take their meals, the requirements of mess-room shall be dispensed with.
1 13. Medical Examination
2 (1) Every worker who is to be employed in processes involving use of benzene or substances containing benzene, shall undergo:

(a) a thorough preemployment medical examination including a blood test for fitness for employment by a certifying surgeon; and
(b) periodical medical examination including blood test and other biological tests at intervals of every 6 months by the factory medical officer with the assistance of a laboratory.
1 (2) Certificates of preemployment medical examination and periodical medical examination including tests, shall be entered in a Health Register in Form No. 17, which shall be produced on demand by an Inspector.
2 (3) If the factory medical officer on examination at any time is of the opinion that any worker has developed signs or symptoms of benzene exposure, he shall make a record of his findings in the said register and inform the Manager in writing and on receipt of the information from the factory medical officer, the Manager of the factory shall send the worker so found exposed, to the Certifying Surgeon who shall, after satisfying himself with the finding

of the factory medical officer and conducting necessary examination, issue orders of temporary shifting of the worker or suspension of the worker in the process.

3 (4) The medical examination shall be arranged by the occupier or manager of the factory and the worker so examined shall not bear any expenses for it.

APPENDIX A

(Paragraph 11)

(a) The hazard

(i) Benzene and substances containing benzene are harmful.

(ii) Prolonged or repeated breathing of benzene vapours may result in acute or chronic poisoning.

(iii) Benzene can also be absorbed through skin which may cause skin and other diseases.

(b) The preventive measures to be taken,

(i) Avoid breathing of benzene vapours.

i (ii) Avoid prolonged or repeated contact of benzene with the skin.

ii (iii) Remove benzene soaked or wet clothing promptly.

iii (iv) If any time you are exposed to high concentration of benzene vapours and exhibit the sign and symptoms such as dizziness, difficulty in breathing, excessive excitation and losing of consciousness, immediately inform your Factory Manager.

iv (v) Keep all the containers of benzene closed.

v (vi) Handle, use and process benzene and substances containing benzene carefully in order to prevent their spillage on floor.

vi (vii) Maintain good housekeeping.

vii (c) The protective equipment to be used,

viii (i) Use respiratory protective equipment in place where benzene vapours are present in high concentration,

ix (ii) In emergency, use selfgenerating oxygen mask or oxygen or aircylinder masks.

x (iii) Wear hand gloves, aprons, goggles and gumboots to avoid contact of benzene with your skin and body parts.

xi (d) The first aid measure to be taken in case of acute benzene poisoning,

xii (i) Remove the clothing immediately if it is wetted with benzene.

xiii (ii) If liquid benzene enters eyes, flush thoroughly for at least 15 minutes with clean running water and immediately secure medical attention,

xiv (iii) In case of unusual exposure to benzene vapour call a physician immediately. Until he arrives do the following:

If the exposed person is conscious:

(a) Move him to fresh air in open.

(b) Lay him down without a pillow and keep him quiet and warm.

If the exposed person in unconscious:

(a) Lay him down preferably on the left side with the head low.

(b) Remove any false teeth, chewinggum, tobacco or other foreign objects which may be in his mouth.
(c) Provide him artificial respiration in case difficulty is being experienced in breathing.
(d) In case of shallow breathing or cyanosis (blueness of skin, lips, ears, fingers nailbeds), he should be provided with medical oxygen or oxygen carbondioxide mixture. If needed, he should be given artificial respiration. Oxygen should be administered by a trained person only.

63[SCHEDULE XV

MANUFACTURE OF POTTERY

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

2 (a) unglazed or salt glazed bricks and tiles; and

3 (b) architectural terracotta made from plastic clay and either unglazed or glazed with a leadless glaze only.

4 2. Definitions: For the purposes of this Schedule,

5 (a) "Efficient exhaust draught" means localized ventilation effected by mechanical or other means for removal of dust or fume so as to prevent it from escaping into 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;

6 (b) "fettling" includes scalloping, towing, sand peppering, sand sticking, brushing or any other process of cleaning of pottery ware in which dust is given off;

7 (c) "first employment" shall mean first employment in any process mentioned under Paragraph 3 and shall also include reemployment in the said process following any cessation of employment for a continuous period exceeding three calendar months;

8 (d) “ground or powdered flint or quartz" does not include natural sands;

9 (e) "leadless 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;

10 (f) "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 degrees centigrade and thoroughly mixed shall be continuously shaken for one hour at the common temperature with 1000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 percent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate;

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

(h) "Pottery" includes earthenware, stoneware, porcelain, chinatiles, and any other articles made from such clay or from a mixture containing clay and other materials such as quartz, flint, felpspar, and gypsum.
3. Efficient exhaust draughts: The following processes shall not be carried on without the use of an efficient exhaust draught,
(a) all processes involving the manipulation or use of a dry and unfritted lead compound;
(b) 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;
(c) sifting of clay dust or any other material for making tiles or other articles by pressure, except where:
(i) this is done in machine so enclosed as to effectually prevent the escape of dust; or
(ii) the material to be shifted is so damp that no dust can be given off;
(d) Pressing of tiles from clay dust, an exhaust opening being connected with each press, and pressing from clay dust of articles other than tiles, unless the material is so damp that no dust is given off;
(e) fettling of tiles made from clay dust by pressure, except where the fettling is done wholly on or with, damp material, and fettling of other articles made from clay dust, unless the material is so damp that no dust is given off;
(f) process of loading and unloading of saggers where handling and manipulation of ground and powdered flint, quartz, aluminia or other materials are involved;
(g) 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 as adequate having regard to all the circumstances of the case;
(h) fettling of biscuitware which has been fired in powdered flint or quartz except where this is done in machine so enclosed as to effectually prevent the escape of dust;
(i) ware cleaning after the application of glaze by dipping or other process;
(j) 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;
(k) 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;
(l) grinding of tiles on a power-driven wheel unless an efficient water spray is used on the wheel;

(m) lifting and conveying of materials by elevators and conveyers unless they are effectively enclosed and so arranged as to prevent escape of dust into the air in or near to any place in which persons are employed;
(n) preparation or weighing out of flow material, lawning of dry colours, colour dusting and colour blowing;
(o) mould making unless the bins or similar receptacles used for holding plaster of paris are provided with suitable covers; and
(p) manipulation of calcined material unless the material has been made and remains so wet that no dust is given off.

4. Separation of process: 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 other wet processes,
(a) crushing and dry grinding or sieving of materials, fettling, pressing of tiles, drying of clay and greenware, loading and unloading of saggars, and the use of a dry lead compound,
(b) all processes involving the use of a dry lead compound.
5. Prohibition on use of glaze: No glaze which is not a leadless glaze or a low solubility glaze shall be used in a factory in which pottery is manufactured.
6. 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 4, or at any place where such operations are carried on.
7. Provisions of screen to potter's wheel: The potter's wheel (jolly and jigger) shall be provided with screens or so constructed as to prevent clay scrapings being thrown off beyond the wheel.
8. Control of dust during cleaning
(1) All practical measures shall be taken by dampening or otherwise to prevent dust arising during cleaning of floors.
(2) Damp sawdust 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 carried out after work has ceased.
9. 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 an adult male using a moist method.
10. Protective equipment
(1) The occupier shall provide and maintain suitable overalls and head coverings for all persons employed in process included under Paragraph 3.

1 (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 filterpress and pug mill workers.
2 (3) Aprons provided in pursuance of subparagraph (2) shall be thoroughly cleaned daily by the wearers by sponging or other wet processes. All overalls and head coverings shall be washed, cleaned arid mended at least once a week, and this washing, cleaning or mending shall be provided for by the occupier.
3 (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.
4 11. Washing facilities: The occupier shall provide and maintain, in a clean state and in good repair for the use of all persons employed in any of the processes specified in Paragraph 8,
5 (a) a wash place under cover with either:
6 (i) a trough with smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimetres 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 60 centimetres; or

7 (ii) at least one tap or standpipe for every five such persons employed at any one time, and having a constant supply of clean water, the tap or standpipe being spaced not less than 120 centimetres apart; and
8 (b) a sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.
9 12. Tune 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 Paragraph 3.
10 13. Messroom
11 (1) There shall be provided and maintained for use of all persons remaining within the premises during the rest intervals, a suitable messroom providing accommodation of 0.93 square metre per head and furnished with:
12 (a) a sufficient number of tables and chairs or benches with back rest;
13 (b) arrangements for washing utensils;
14 (c) adequate means for warming food; and
15 (d) adequate quantity of drinking water.
16 (2) The room shall be adequately ventilated by the circulation of fresh air and placed under the charge of a responsible person and shall be kept clean.

1 14. Food, drinks, etc. prohibited in workrooms: No food, drink, pan, supari and tobacco shall be brought into or consumed by any worker in any workroom in which any of the processes mentioned in Paragraph 3 are carried on and no person shall remain in any such room during interval for meals or rest.
2 15. Cloakroom, etc: There shall be provided and maintained for the use of all persons employed in any of the processes mentioned in Paragraph 3,
3 (a) a cloakroom for clothing put off during working hours and such accommodation shall be separate from any messroom; and
4 (b) separate and suitable arrangements for the storage of protective equipment provided under Paragraph 10.
5 16. Medical facilities and records of examinations and tests
6 (1) The occupier of every factory in which manufacturing of pottery is carried on, shall:
7 (a) employ a qualified medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories; and
8 (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
9 (2) The record of medical examination and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.
10 17. Medical examination by Certifying Surgeon
11 (1) Every worker employed in any process mentioned under Paragraph 3, shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for lead in urine and blood, ALA in urine, haemoglobin content, stippling of cells and pulmonary function tests and chest Xray for workers engaged in processes mentioned

in clauses (a) and (n) of Paragraph 3 and pulmonary function test and chest Xrays for the others. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

12 (2) All persons employed in any of the processes mentioned in clauses (a) and (n) of Paragraph 3 shall be examined by a Certifying Surgeon once in every 3 calendar months. Those employed in any other processes mentioned in the remaining clauses of Paragraph 3 shall be examined by a Certifying Surgeon once in every twelve calendar months. Such examinations in respect of all the workers shall include all the tests as specified in subparagraph (1) except chest Xray which will be once in 3 years.

1 (3) The Certifying Surgeon after examining a worker, shall issue Certificate of Fitness in Form 26. The record of examination and reexamination carried out shall be entered in the certificate and the certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under subparagraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.

2 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.

3 (5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to health of the worker, he shall make a record of his findings in the said certificate and the Health Register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit for work in the said processes.

4 (6) No person who has been found unfit to work as said in subparagraph (5) above shall be reemployed or permitted to work in the said processes unless the Certifying Surgeon, after further examination again certifies him fit for employment in those processes.

5 18. Exemption: If in respect of any factory 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 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.

SCHEDULE XVI
MANIPULATION OF STONE OR ANY OTHER MATERIAL
CONTAINING FREE SILICA

1 1. Application: This Schedule shall apply to all factories or parts of factories in which manipulation of stone or any other material containing free silica is carried on.

2 2. Definitions: For the purpose of this Schedule,

3 (a) "First employment" shall mean first employment in the processes specified in Paragraph 1 and shall also include reemployment in the said processes following any cessation of employment for a continuous period exceeding three calendar months;

4 (b) "manipulation" means crushing, breaking, chipping, dressing, grinding, sieving, mixing, grading or handling of stone or any other material or any other operation involving such stone or material; and
5 (c) "stone or any other material containing free silica" means a stone or any other solid material containing not less than 5 per cent by weight of free silica.

1 3. Precautions in manipulation: No manipulation shall be carried out in a factory or part of a factory unless one or more of the following measures, namely:
2 (a) dampening the stone or other material being processed;
3 (b) providing water spray;
4 (c) enclosing the processes;
5 (d) isolating the process; and
6 (e) providing localized exhaust ventilation;

are adopted so as to effectively control the dust in any place in the factory where any person is employed, at a level equal to or below the maximum permissible level for silica dust as laid down in the second Schedule appended to Section 41F of the Act:
Provided that such measures as above said are not necessary if the process of operation itself is such that the level of dust created and prevailing does not exceed the permissible level referred to.
1 4. Maintenance of floors
2 (1) All floors or places where fine dust is likely to settle on and wherein any person has to work or pass shall be of impervious material and maintained in such condition that they can be thoroughly cleaned by a moist method or any other method which would prevent dust being airborne in the process of cleaning.
3 (2) The surface of every floor of every workroom or place where any work is carried on or where any person has to pass during the course of his work, shall be cleaned of dust once at least during each shift after being sprayed with water or by any other suitable method so as to prevent dust being airborne in the process of cleaning.
4 5. Prohibition relating to young persons: No young person shall be employed or permitted to work in any of the operations involving manipulation or at any place where such operations are carried on.
5 6. Medical facilities and records of examinations and tests
6 (1) The occupier of every factory to which the Schedule applies, shall:
7 (a) employ a qualified medical officer for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories, and
8 (b) provide to the said medical officer all the necessary facilities for the purpose referred to in clause (a).
9 (2) The record of medical examination and appropriate tests carried out by the said medical officer shall be maintained in separate register approved by the Chief

1 Inspector of Factories which shall be kept readily available for inspection by the Inspector.

2 7. Medical examination by Certifying Surgeon

3 (1) Every worker employed in the processes specified in Paragraph 1, shall be examined by a Certifying Surgeon within 15 days of his first employment. Such medical examination shall include pulmonary function tests and chest Xray. No worker shall be allowed to work after 15 days of his first employment unless certified fit for such employment by the Certifying Surgeon.

4 (2) Every worker employed in the said processes shall be reexamined by a Certifying Surgeon at least once in every twelve months. Such examination shall, wherever the Certifying Surgeon considers appropriate, include all the tests as specified in subparagraph (1) except chest Xray which will be once in every 3 years.

5 (3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 26. The record of reexamination carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the Factory. The record of each examination carried out under subparagraphs (1) and (2) including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in Health Register in Form 27.

6 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.

7 (5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the Health Register. The entry of his findings in those documents also include the period for which he considers that the said person is unfit for work in the said processes.

8 (6) No person who has been found unfit to work as said in subparagraph (5) above shall be reemployed or permitted to work in the said process unless the Certifying Surgeon after further examination, again certifies him fit for employment in those processes.

9 8. Exemption: If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this Schedule are not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may in his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

SCHEDULE XVII
HANDLING AND PROCESSING OF ASBESTOS MANUFACTURE OF

ANY ARTICLE OF ASBESTOS AND ANY OTHER PROCESS OF MANUFACTURE OR OTHERWISE IN WHICH ASBESTOS IS USED IN ANY FORM

1 1. Application: This Schedule shall apply to all factories or part of factories in which any of the following processes are carried on,

2 (a) breaking, crushing, disintegrating, opening, grinding, mixing or sieving of asbestos and any other processes involving handling and manipulation of asbestos incidental thereto;

3 (b) all processes in the manufacture of asbestos textiles including preparatory and finishing processes;

4 (c) making of insulation slabs or sections, composed wholly or partly of asbestos and processes incidental thereto;
5 (d) making or repairing of insulating mattresses composed wholly or partly of asbestos, and processes incidental thereto;
6 (e) manufacture of asbestos cardboard and paper;
7 (f) manufacture of asbestos or cement goods;
8 (g) application of asbestos by spray method;
9 (h) sewing, grinding, turning, abrading and polishing in the dry state of articles composed wholly or partly of asbestos;
10 (i) cleaning of any room, vessel, chambers, fixture or appliance for the collection of asbestos dust; and
11 (j) any other processes in which asbestos dust is given off into the work environment.
12 2. Definition: For the purpose of this Schedule,
13 (a) "approved" means approved for the time being in writing by the Chief Inspector;
14 (b) "asbestos" means any fibrous silicate mineral and any admixture containing actionlite, amosite, anthophylite, chrysolite, corcidelite, tremolite or any mixture thereof, whether crude, crushed or opened;
15 (c) "asbestos textiles" means yarn or cloth composed of asbestos mixed with any other material;
16 (d) "breathing apparatus" means a helmet or face piece with necessary connection by means of which a person using it breathes air free from dust, or any other approved apparatus;
17 (e) “efficient exhaust draught" means localized ventilation by mechanical means for the removal of dust so as to prevent dust from escaping into air of any place

in which work is carried on. No draught shall be deemed to be efficient which fails to control dust produced at the point where such dust originates;
(f) "first employment" shall mean first employment in the processes, specified in Paragraph 1 and shall also include reemployment in the said processes following any cessation of employment for a continuous period exceeding three calendar months;
(g) "preparing" means crushing, disintegrating, and any other processes in or incidental to the opening of asbestos; and
(h) "protective clothing" means overall and head covering, which (in either case) will when worn exclude asbestos dust.
3. Tools and equipment: Any tools or equipment used in processes to which this Schedule applies shall be such that they do not create asbestos dust above the permissible limit or are equipped with efficient exhaust draught.
4. Exhaust draught
(1) An efficient exhaust draught shall be provided and maintained to control dust from the following processes and machines,
(a) manufacture and conveying machinery, namely:
(i) preparing, grinding or dry mixing machines;
(ii) carding, card waste and ring spinning machines, and looms;
(iii) machines or other plant fed with asbestos; and

(iv) machines used for the sewing, grinding, turning, drilling, abrading or polishing, in the dry state, of articles composed wholly or partly of asbestos.
(b) cleaning and grinding of the cylinders or other parts of a carding machine;
(c) chambers, hoppers or other structures into which lose asbestos is delivered or passes;
(d) workbenches for asbestos waste sorting or for other manipulation of asbestos by hand;
(e) workplaces at which the filling or emptying of sacks, skips or other portable containers, weighing or other process incidental thereto which is effected by hand, is carried on;
(f) sack cleaning machines;
(g) mixing and blending of asbestos by hand; and
(h) any other process in which dust is given off into the work environment.
(2) Exhaust ventilation equipment provided in accordance with subparagraph (1) shall, while any work of maintenance or repair to the machinery, apparatus or

1 other plant or equipment in connection with which it is provided is being carried on, be kept in use so as to produce an exhaust draught which prevents the entry of asbestos dust into the air of any workplace.
2 (3) Arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air of any workroom.
3 (4) The asbestos bearing dust removed from any workroom by the exhaust system shall be collected in suitable receptacles or filter bags which shall be isolated from all work areas.
4 5. Testing and examination of ventilating systems
5 (1) All ventilating systems used for the purpose of extracting or suppressing dust as required by this Schedule shall be examined and inspected once every week by a responsible person. It shall be thoroughly examined and tested by a competent person once in every period of 12 months. Any defects found by such examinations or test shall be rectified forthwith.
6 (2) A register containing particulars of such examination and tests and the state of the plant and repairs or alterations (if any) found to be necessary shall be kept and shall be available for inspection by an Inspector.
7 6. Segregation in case of certain process: Mixing or blending by hand of asbestos, or making or repairing of insulating mattresses composed wholly or partly of asbestos shall not be carried on in any room in which any other work is done.
8 7. Storage and distribution of loose asbestos: All loose asbestos shall while not in use, be kept in suitable closed receptacles which prevent the escape of asbestos dust therefrom and such asbestos shall not be distributed within a factory except in such receptacles or in a totally enclosed system of conveyance.
9 8. Asbestos sacks
10 (1) All sacks used as receptacles for the purpose of transport of asbestos within the factory shall be constructed of impermeable material and shall be kept in good repair.
11 (2) A sack which has contained asbestos shall not be cleaned by hand beating but by a machine, complying with Paragraph 3.
12 9. Maintenance of floors and workplaces
13 (1) In every room in which any of the requirements of this Schedule apply,

14 (a) the floors, workbenches, machinery and plant shall be kept in a clean state and free from asbestos debris and suitable arrangements shall be made for the storage of asbestos not immediately required for use; and
15 (b) the floors shall be kept free from any materials, plant or other articles not immediately required for the work carried on in the room and which would obstruct the proper cleaning of the floor.

1 (2) The cleaning as mentioned in subparagraph (1) shall, so far as is practicable, be carried out by means of vacuum cleaning equipment as designed and constructed and so used that asbestos dust neither escapes nor is discharged into the air of any workplace.
2 (3) When the cleaning is done by any method other than that mentioned in subparagraph (2), the persons doing cleaning work and any other person employed in that room shall be provided with respiratory protective equipment and protective clothing.
3 (4) The vacuum cleaning equipment used in accordance with provisions of subparagraph (2), shall be properly maintained and after each cleaning operation, its surface shall be kept in a clean state and free from asbestos waste and dust.
4 (5) Asbestos waste shall not be permitted to remain on the floors or other surfaces at the workplace at the end of the working shift and shall be transferred without delay to suitable receptacles. Any spillage of asbestos waste occurring during the course of the work at any time shall be removed and transferred to the receptacles maintained for the purpose without delay.
5 10. Breathing apparatus and protective clothing
6 (1) An approved breathing apparatus and protective clothing shall be provided and maintained in good condition for use of every person employed:
7 (a) in chambers containing loose asbestos;
8 (b) in cleaning, dust settling, or filtering chambers, or apparatus;
9 (c) in cleaning the cylinders, including the doffers cylinders, or other parts of a carding machine by means of handstrickles;
10 (d) in filling, beating, or levelling in the manufacture or repair of insulating mattresses; and
11 (e) in any other operation or circumstance in which it is impracticable to adopt technical means to control asbestos dust in the work environment within the permissible limit.
12 (2) Suitable accommodation in conveniently accessible position shall be provided for the use of persons when putting on or taking off breathing apparatus and protective clothing provided in accordance with this Schedule and for the storage of such apparatus and clothing when not in use.
13 (3) All breathing apparatus and protective clothing when not in use shall be stored in the accommodation provided in accordance with subparagraph (2).
14 (4) All protective clothing in use shall be redusted under an efficient exhaust draught or by vacuum cleaning and shall be washed at suitable intervals. The

1 cleaning Schedule and procedure should be such as to ensure the efficiency of the said clothing in protecting the wearer.
2 (5) All breathing apparatus shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.

3 (6) Records of the cleaning and maintenance and of the condition of the breathing apparatus shall be maintained in a register provided for that purpose which shall be readily available for inspection by an Inspector.
4 (7) No person shall be employed to perform any work specified in subparagraph (1) for which breathing apparatus is necessary to be provided under that subparagraph unless he has been fully instructed in the proper use of that equipment.
5 (8) No breathing apparatus provided in pursuance of subparagraph (1) which has been worn by a person, shall be worn by another person unless it has been thoroughly cleaned and disinfected since last being worn and the person has been fully instructed in the proper use of that equipment.
6 11. Separate accommodation for personal clothing: A separate accommodation shall be provided in a conveniently accessible position for all persons employed in operations to which this Schedule applies for storing of personal clothing. This should be separated from the accommodation provided under subparagraph (2) of Paragraph 10 to prevent contamination of personal clothing.

1 12. Washing and bathing facilities
2 (1) There shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the processes covered by the Schedule, adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 15 persons employed.
3 (2) The washing places shall have standpipes placed at intervals of not less than one metre.
4 (3) Not less than onehalf of the total number of washing places shall be provided with bathrooms.
5 (4) Sufficient supply of clean towels made of suitable materials shall be provided:

Provided that such towels shall be supplied individually for each worker if so ordered by the Inspector.
1 (5) Sufficient supply of soap and nail brushes shall be provided.
2 13. Messroom
3 (1) There shall be provided and maintained for the use of all workers employed in the factory covered by this schedule, remaining on the premises during the rest intervals, a suitable messroom which shall be furnished with,

(a) sufficient tables and benches with backrest, and
(b) adequate means for warning food.
(2) The messroom shall be placed under the charge of a responsible person and shall be kept clean.
14. Prohibition of employment of young persons: No young person shall be employed in any of the processes covered by this Schedule.
15. Prohibition relating to smoking: No person shall smoke in any area where processes covered by this Schedule are carried on. A notice in the language understood by majority of the workers shall be posted in the plant prohibiting smoking at such areas.

16. Cautionary Notices
(1) Cautionary notices shall be displayed at the approaches and along the perimeter of every asbestos processing area to warn all persons regarding:
(a) hazards to health from asbestos dust;
(b) need to use appropriate protective equipment; and
(c) prohibition of entry to unauthorised persons or authorised persons but without protective equipment.
(2) Such notices shall be in the languages understood by the majority of the workers.
17. Air Monitoring: To ensure the effectiveness of the central measures, monitoring of asbestos in air shall be carried out once at least in every shift and the record of the results so obtained shall be entered in a register specially maintained for the purpose.
18. Medical facilities and records of medical examinations and tests
(1) The occupier of every factory or part of the factory to which the Schedule applies, shall:
(a) employ a qualified medical practitioner for medical surveillance of the workers covered by this Schedule whose employment shall be subject to the approval of the Chief Inspector of Factories; and
(b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
(2) The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.
19. Medical examination by Certifying Surgeon
(1) Every worker employed in the processes specified in Paragraph 1 shall be examined by a Certifying Surgeon within 15 days of his first employment. Such

1 examination shall include pulmonary function tests, tests for detecting asbestos fibers in sputum and chest Xray. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
2 (2) Every worker employed in the process referred to in subparagraph (1) shall be reexamined by a Certifying Surgeon at least once in every twelve calendar months. Such examinations shall, wherever the Certifying Surgeon considers appropriate include all the tests specified in subparagraph (1) except chest Xray which will be carried out once in 3 years.
3 (3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 26. The record of examination and reexaminations carried out shall be entered in the certificate and the certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under subparagraphs (1) and (2), including the nature and the results of the test, shall also be entered, by the Certifying Surgeon in a Health Register in Form 27.
4 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.
5 (5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the Health Register. The entry of his findings in these documents should also

include the period for which he considers that the said person is unfit to work in the said processes.

6 (6) No person who has been found unfit to work as said in subparagraph (5) shall be reemployed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.

7 20. Exemption: If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the processes for any other reason, all or any of the provisions of this Schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such condition, if any, as he may specify therein.

SCHEDULE XVIII

HANDLING OR MANIPULATION OF CORROSIVE SUBSTANCES

1 1. Definition: For the purposes of this Schedule

2 (a) "corrosive operation" means an operation of manufacturing, storing, handling, processing, packing or using any corrosive substance in a factory; and

(b) "corrosive substance" includes Sulphuric acid, Nitric acid, Hydrochloric acid, Hydrofluoric acid, Carbolic acid, Phosphoric acid. Liquid chlorine, Liquid bromine, Ammonia, Sodium hydroxide and Potassium hydroxide and a mixture thereof, and any other substance which the State Government by notification in the Official Gazette specify to be a corrosive substance.

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

3. Protective equipment

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

(2) The protective equipment and preparations provided shall be used by the persons employed in any corrosive operation.

4. Water facilities: Where any corrosive operation is carried on, there shall be provided as close to the place of such operation as possible a source of clean water at a height of 210 centimetres from a pipe of 1.25 centimetres diameter and fitted with a quick acting valve so that in case of injury to the worker by any corrosive substance, the injured part can be thoroughly flooded with water. Whenever necessary, in order to ensure continuous water supply, a storage tank having a minimum length, breadth and height of 210 centimeters, 120 centimeters and 60 centimeters respectively or such dimensions as are approved by the Chief Inspector shall be provided as the source of clean water.

5. Cautionary notice: A cautionary notice in the following form and printed in the language which majority of the workers employed understand, shall be displayed prominently close to the place where a corrosive operation is carried out and where it can be easily and conveniently read by the workers. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice so displayed.

CAUTIONARY NOTICE
DANGER
Corrosive substances cause severe burns and vapours thereof may be extremely hazardous. In case of contact, immediately flood the part effected with plenty of water for at least 15 minutes.

Get medical attention quickly.
1 6. Transport
2 (1) Corrosive substances shall not be filled, moved or carried except in containers or through pipes and when they are to be transported in containers they shall be placed in crates of sound construction and of sufficient strength.
3 (2) A container with a capacity of 11.5 litres or more of a corrosive substance shall be placed in a receptacle or crate and then carried by more than one person at a height below the waist line unless a suitable rubber wheeled truck is used for the purpose.
4 (3) Containers for corrosive substances shall be plainly labelled.
5 7. Devices for handling corrosives
6 (1) Tilting, lifting or pumping arrangements shall be used for emptying jars, carboys and other containers of corrosives.
7 (2) Corrosive substance shall not be handled by bare hands but by means of a suitable scoop or device.
8 8. Openings of valves: Valves fitted to containers holding a corrosive substance shall be opened with great care. If they do not work freely, they shall not be forced open. They shall be opened by a worker suitably trained for the purpose.
9 9. Cleaning tanks, sills etc.
10 (1) In cleaning out or removing residues from sills or other large chambers used for holding any corrosive substance, suitable implements made of wood or other material shall be used to prevent production of arseniuretted hydrogen (arsine).
11 (2) Whenever it is necessary for the purpose of cleaning or other maintenance work for any worker to enter chamber, tank, vat, pit or other confined space where a corrosive substance had been stored, all possible precautions required under Section 36 of the Act shall be taken to ensure the worker's safety.
12 (3) Wherever possible, before repairs are undertaken to any part of equipment in which a corrosive substance was handled, such equipment or part thereof shall be freed of any adhering corrosive substance by adopting suitable method.
13 10. Storage
14 (1) Corrosive substances shall not be stored in the same room with other chemical materials such as turpentine, carbides, metallic powders and combustible materials, to

accidental mixing with, which may cause a reaction which is either violent or gives rise to toxic fumes and gases.

15 (2) Pumping or filling overhead tanks, receptacles vats or other container for storing corrosive substances shall be so arranged that there is no possibility of any corrosive substance overflowing and causing injury to any person.

1 (3) Every container having a capacity of twenty litres or more and every pipeline, valve, and fitting used for storing or carrying corrosive substance shall be thoroughly examined every year for finding out any defects, and defects so found out shall be removed forthwith. A register shall be maintained of every such examination made and shall be produced before the Inspector whenever required.

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

3 12. Exemption: If in respect of any factory on an application made by the Manager, the Chief Inspector is satisfied that owing to the exceptional circumstances, or the infrequency of the process or for any other reason to be recorded by him in writing, all or any of the provisions of this Schedule are not necessary for the protection of the persons employed therein, he may by a certificate in writing which he may at any time revoke, exempt the factory from such of the provisions and subject to such conditions as he may specify therein.

SCHEDULE XIX
COMPRESSION OF OXYGEN AND HYDROGEN PRODUCED
BY ELECTROLYSIS OF WATER

1 1. Location of electrolyser plant: 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 2. Testing of purity

3 (1) The purity of oxygen and hydrogen shall be tested by competent person at least once in every shift at the following posts,

4 (a) in the electrolysis room;

5 (b) at the gasholder inlet; and

6 (c) at the suction and of the compressor.

7 (2) The purity figures shall be entered in a register and signed by the persons carrying out such tests:

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

1 3. Restrictions as to the compression: The oxygen and hydrogen gases shall not be compressed if their purity as determined under Paragraph 2 above falls below 98 per cent at any time.

2 4. Limit switch for gasholder: The bell of any gasholder shall not be permitted to go within the 30 centimeters of its lowest position when empty and a limit switch shall be fitted in the gasholder in such a manner as to switch off the compressor motor when the limit is reached.

3 5. Provision of negative pressure switch: In addition to the limit switch in the gasholder, a sensitive negative pressure switch shall be provided in or adjacent to the suction main for hydrogen close to the gasholder and between the gasholder and the hydrogen compressor to switch off the compressor meter in the event of the gasholder being emptied to the extent as to cause vacuum.

4 6. Purity of caustic soda: The water and caustic soda used for making lye shall be chemically pure within pharmaceutical limits.

5 7. Precautions against reversal of polarity: Electrical connections at the electrolyser cells and at the electric generator terminals shall be constructed as to preclude the possibility or wrong connections leading to the reversal of polarity and in addition an automatic device shall be provided to cut off power in the event of reversal of polarity owing to wrong connections either at the switch board of at the electric generator terminals.

6 8. Colouring of gas pipes: 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.

7 9. Use of flame proof fittings: All electrical wiring and apparatus in the electrolyser room shall be of flame proof construction or enclosed in flameproof 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,

8 10. Prohibition of hot work: No part of the electrolyser plant and the gasholders and compressor shall be subjected to welding, brazing, soldering or cutting until steps have been taken to remove any explosive substance from that part and render the part safe for such operations and after the completion of such operations no explosive substance shall be allowed to enter that part until the metal has cooled sufficiently to prevent risk of explosion.

9 11. Repair etc. to be done under supervision: No work or 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

1 certified by the competent persons 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 Paragraph 7,

2 12. Checking of plant: Every part of the electrolyser plant and the gasholders and compressor shall have a regular Schedule of overhaul and checking and every defect noticed shall be rectified forthwith.

SCHEDULE XX
PROCESS OF EXTRACTING OILS AND FATS FROM VEGETABLE AND ANIMAL SOURCE IN SOLVENT EXTRACTION PLANTS

1 1. Definitions: For the purposes of this Schedule,

2 (a) "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 engineering technology with specialized knowledge of oils and fats and with a minimum experience of 5 years in a solvent extraction plant shall also be considered to be a competent person:
Provided further that the State Government may accept any other qualifications if in its opinion they arc equivalent to the qualifications aforesaid.
(b) "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, an internal explosion of the flammable gas or vapour which may enter or which may originate inside the enclosure without suffering damage and without communicating internal inflammation (or explosion) to the external flammable gas or vapour;
(c) "solvent" means an inflammable liquid such as pentane, hexane and heptane used for the recovery of vegetable oils;
(d) "solvent extraction plant" means a plant in which the process of extracting oils and fats from vegetable and animal sources by the use of solvents is carried on.
2. Location and layout
(1) No solvent extraction plant shall be permitted to be constructed or extended to within a distance of 30 meters from the nearest residential locality.
(2) A 15-metre-high continuous wire fencing shall be provided around the solvent extraction plant up to a minimum distance of 15 meters from the plant.
(3) No person shall be allowed to carry any matches or an open flame of fire inside the area bound by the fencing.

1 (4) Boiler houses and other buildings where open flame processes are carried on shall be located at least 30 metres away from the solvent extraction plant.

2 (5) If godowns and preparatory processes are at a distance of less than 30 meters from the solvent extraction plant, these shall be at least 15 meters distant from the plant, and a continuous barrier wall of noncombustible material 1.5 meters high shall be erected at distance of not less than 15 meters from the solvent extraction plant so that it extends to at a least 30 meters of vapour travel around its ends from the plant to the possible sources of ignition.

3 3. Electrical installations

4 (1) All electrical motors and wiring and either electrical equipment installed or housed in solvent extraction plant shall be of flame proof constructions.

5 (2) All metal parts of the plant and building including various tanks and containers where solvents are stored are present and all parts of electrical equipment 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. Restrictions on smoking: Smoking shall be strictly prohibited within 15 meters' distance from solvent extraction plant. For this purpose, "No Smoking" signs shall be permanently displayed in the areas.

5. Precautions against friction

(1) All tools and equipment including ladders, chains and other lifting tackle required to be used in solvent extraction plant shall be of nonsparking 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. Firefighting apparatus

(1) Adequate number of portable fire extinguisher 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 openhead 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 the automatic cutting off of steam in the event of power failure and also for emergency overhead watersupply 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 conveyor through a hopper and a magnetic separator shall be provided to remove any pieces of iron during its transfer.

9. Venting

(1) Tanks containing solvents 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 reenter 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 eight 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 be provided with mechanical ventilation with provision for at least six air changes per hour.

12. Housekeeping

(1) Solvent 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 oily rags, other wastes and absorbents used to wipe off solvent and paints and oils 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 meters from the plant shall be kept free from any combustible materials and any spills of oil or solvent, shall be cleaned up immediately.

11 13. Examination and repairs
12 (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.
13 (2) No repairs shall be carried out to the machinery or plant except under the direct supervision of the competent person.
14 (3) Facility shall be provided for purging the plant with inert gas before opening for cleaning or repairs and before introducing solvent after repairs.
15 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.

1 15. Employment of women and young persons: No women or young person shall be employed in the solvent extraction plant.
2 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 location approved by the Chief Inspector shall be drawn out and entered in a register maintained for the purpose.

SCHEDULE XXI
MANUFACTURE OR MANIPULATION OF MANGANESE AND ITS COMPOUNDS

1 1. Application: This Schedule shall apply to every factory in which or in any part of which any manganese process is carried on.
2 2. Definitions: For the purposes of this Schedule,
3 (a) "efficient exhaust ventilation" means localized ventilation effected by mechanical means for the removal of dust or fume or mist at its source of origin so as to prevent it from escaping into the atmosphere of any place where any work is carried on. No drought shall be deemed to be efficient which fails to remove the dust or fume or mist at the point where it is generated and fails to prevent it from escaping into and spreading into the atmosphere of a workplace;
4 (b) "first employment" means first employment in any manganese process following any cessation of employment for a continuous period exceeding three calendar months;
5 (c) "manganese process" means processing, manufacture or manipulation of manganese or any compound of manganese or any mixture containing manganese; and
6 (d) "manipulation" means mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping or otherwise handling of manganese, or a compound of manganese, or any ore or any mixture containing manganese.
7 3. Isolation of a process: Every manganese process which may give rise to dust, vapour or mist containing manganese, shall be carried on in a totally enclosed system or otherwise effectively isolated from other processes so that other plants and processes and other parts of the factory and persons employed on other processes may not be effected by the same.

8 4. Ventilation of process: No process in which any dust, vapour or mist containing manganese is generated, shall be carried out except under an efficient exhaust ventilation which shall be applied as near to the point of generation as practicable.

9 5. Personal protective equipment

1 (1) The occupier of the factory shall provide and maintain in good and clean condition suitable overalls and head coverings for all persons employed in any manganese process and such overalls and head coverings shall be worn by the persons while working on a manganese process.

2 (2) The occupier of the factory shall provide suitable respiratory protective equipment for use by workers in emergency to prevent inhalation of dust, fumes or mists. Sufficient number of complete sets of such equipment shall always be kept near the workplace and the same shall be properly maintained and kept always in a condition to be used readily.

3 (3) The occupier shall provide and maintain for the use of all persons employed, suitable accommodation for the storage and make adequate arrangement for cleaning and maintenance of personal protective equipment.

4 6. Prohibition relating to women and young persons: No women or young persons shall be employed or permitted to work in any manganese process.

5 7. Food, drinks etc. prohibited in the workrooms: No food, drink, pan and supari or tobacco shall be allowed to be brought into premises consumed by any worker in any workroom in which any manganese process is carried on.

6 8. Messroom: There shall be provided and maintained for the use of the persons employed in a manganese process a suitable messroom which shall be furnished with sufficient tables and benches and adequate means for warming of food. The messroom shall be placed under the charge of a responsible person and shall be kept clean.

7 9. Washing facilities: There shall be provided and maintained in a clean state and in good condition, for the use of persons employed on manganese process,

8 (a) a wash place under cover, with either:

9 (i) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimeters for every ten such persons employed at any one time, and having a constant supply of water from tap or jet above the trough at intervals of not more than 60 centimeters; or

10 (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; and

11 (b) sufficient supply of soap or other suitable cleaning materials and nail brushes and clean towels.

12 10. Cloakroom: If the Chief Inspector so requires there shall be provided and maintained for the use of persons employed in manganese process a cloakroom for clothing, put off during working hours with adequate arrangements for drying the clothing.

1 11. Cautionary placard and instructions: Cautionary notices in the form specified in appendix and printed in the language of the majority of the workers employed, shall be affixed in prominent places in the factory where they can be easily and conveniently read by the workers and arrangement shall be made by the occupier to instruct periodically all workers

employed in a manganese process regarding the health hazards connected with their duties and the best preventive measures and methods to protect themselves. The notices shall always be maintained in a legible condition.

2 12. Medical facilities and records of examination and tests

3 (1) The occupier of every factory to which the Schedule applies, shall:

4 (a) employ a qualified medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories; and

5 (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).

6 (2) The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

7 13. Medical examination by Certifying Surgeon

8 (1) Every worker employed in any manganese process shall be medically examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for detection of serum calcium, serum phosphate and manganese in blood and urine and also include steadiness tests and other neuromuscular coordination tests. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified for such employment by the Certifying Surgeon.

9 (2) Every worker employed in a manganese process shall be reexamined by a Certifying Surgeon at least once in every three calendar months and such examination shall, wherever the Certifying Surgeon considers appropriate include all the tests in subparagraph (1).

10 (3) The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in Form 26. The record of examination and reexaminations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The records of each examination carried out under subparagraphs (1) and (2) including the nature and the results of these tests, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.

11 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.

1 (5) If at any time the Certifying Surgeon is of the opinion that the worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the Health Register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit to work in the said process.

2 (6) No person who has been found unfit to work as said in subparagraph (5) shall be reemployed or permitted to work in the said processes unless the Certifying Surgeon after further examination, again certifies him fit for employment in those processes.

3 14. Exemption: If in respect of any factory the Chief Inspector is satisfied that owing to any exceptional circumstances, or infrequency of the process or for any other reason, application of all or any of the provisions of this Schedule is not necessary for the protection of

the persons employed in such factory he may, by an order in writing which he may at his discretion revoke, exempt such factory from all or any of the provisions on such conditions and for such period as he may specify in the said order.

APPENDIX
CAUTIONARY NOTICE
Manganese and Manganese Compounds

1 1. Dust, Fumes and mists of manganese and its compounds are toxic when inhaled or when ingested.
2 2. Do not consume food or drinks near the workplace.
3 3. Take a good wash before taking meals.
4 4. Keep the working area clean.
5 5. Use the protective clothing and equipment provided.
6 6. When required to work in situations where dusts, fumes or mists are likely to be inhaled, use respiratory protective equipment provided for the purpose.
7 7. If you get severe headaches, prolonged sleeplessness or abnormal sensations on the body, report to the manager who would make arrangements for your examination and treatment.

SCHEDULE XXII
MANUFACTURE OR MANIPULATION OF DANGEROUS PESTICIDES

1 1. Application: This Schedule shall apply in respect of all factories or any part thereof in which the process of manufacture or manipulation of dangerous pesticide hereinafter referred or as the said manufacturing process is carried on.
2 2. Definitions: For the purposes of this Schedule,
3 (a) "dangerous pesticides" means any product proposed or used for controlling, destroying or repelling any part or for preventing growth or mitigating excepts of such growth including any of its formulations which is considered toxic under and is covered by the Insecticides Act, 1968 and the rules made thereunder and any other product, as may be notified from time to time by the State Government;
4 (b) "efficient exhaust draught" means localized mechanical ventilation for removal of smoke, gas vapour, dust, fume or mist so as to prevent them from escaping into the air of any workroom in which work is carried on. No exhaust draught shall be considered efficient if it fails to remove smoke generated at the point where such gas, fume, dust, vapour or mist originates from the process;
5 (c) "first employment" shall mean first employment in any manufacturing process to which this Schedule applies and shall also include reemployment in the said manufacturing process following any cessation of employment for a continuous period exceeding three calendar months; and
6 (d) “manipulation" including mixing, blending, formulating, filling, emptying, packing or otherwise handling.
7 3. Instruction to workers: Every worker on his first employment shall be fully instructed on the properties including dangerous properties of the chemicals handled in the said

manufacturing process and the hazards involved. The employees shall also be instructed in the measures to be taken to deal with any emergency, such instructions shall be repeated periodically.

8 4. Cautionary notice and placards: Cautionary notices and placards in the form specified in appendix to this Schedule and printed in the language of the majority of the workers shall be displayed in all workplaces in which the said manufacturing process is carried on so that they can be easily and conveniently read by the workers. Arrangements shall be made by the occupier and the manager of the factory to periodically instruct the workers regarding the health hazards arising in the said manufacturing process and methods of protection. Such notices shall include brief instructions regarding the periodical clinical tests required to be undertaken for protecting health of the workers.

9 5. Prohibition relating to employment of women or young persons: No women or young person shall be employed or permitted to work in any room in which the said manufacturing process is carried on or in any room in which dangerous pesticide is stored.

10 6. Food, drinks and smoking prohibited

1 (1) No food, drink, tobacco, pan or supari shall be brought into or consumed by any worker in any workroom in which the said manufacturing process is carried out.

2 (2) Smoking shall be prohibited in any workroom in which the said manufacturing process is carried out.

3 7. Protective clothing and protective equipment

4 (1) Protective clothing consisting of long pants and shirts or overalls with long sleeves and head coverings shall be provided for all workers employed in the said manufacturing process.

5 (2)

6 (a) Protective equipment consisting of rubber gloves, gum boots, rubber apron, chemical safety goggles and respirators shall be provided for all workers employed in the said manufacturing process.

7 (b) Gloves, boots, aprons shall be made from synthetic rubber where a pesticide contains oil.

8 (3) Protective clothing and equipment shall be worn by workers supplied with such clothing and equipment.

9 (4) Protective clothing and equipment shall be washed daily inside and outside if the workers handle pesticides containing nicotine or phosphorus and shall be washed frequently if handling other pesticides.

10 (5) Protective clothing and equipment shall be maintained in good repair.

11 8. Floors and workbenches

12 (1) Floors in every workroom where dangerous pesticides are manipulated shall be of cement or other impervious material giving a smooth surface.

13 (2) Floors shall be maintained in good repair, provided with adequate slope leading to a drain and thoroughly washed once a day with hose pipe.

14 (3) Workbenches where dangerous pesticides are manipulated shall be made of smooth, nonabsorbing material preferably stainless steel and shall be cleaned at least once daily.

15 9. Spillage and waste

16 (1) If a dangerous pesticide during its manipulation splashes or spills on the workbench, floor or on the protective clothing worn by a worker, immediate action shall be taken for thorough decontamination of such areas or articles.
17 (2) Cloth, rags, paper or other material soaked or soiled with a dangerous pesticide shall be deposited in a suitable receptacle with tight fitting cover. Contaminated waste shall be destroyed by burning at least once a week.
18 (3) Suitable deactivating agents where available shall be kept in a readily accessible place for use while attending to a spillage.

1 (4) Easy means of access shall be provided to all parts of the plants for cleaning, maintenance and repairs.
2 10. Empty containers used for dangerous pesticides: Containers used for dangerous pesticides shall be thoroughly cleaned of their content and treated with an inactivating agent before being discarded or destroyed.
3 11. Manual handling
4 (1) A dangerous pesticide shall not be required or allowed to be manipulated by hand except by means of a long-handled scoop.
5 (2) Direct contact of any part of the body with a dangerous pesticide during its manipulation shall be avoided.
6 12. Ventilation
7 (1) In every workroom or area whereas dangerous pesticide is manipulated, adequate ventilation shall be provided at all times by the circulation of fresh air.
8 (2) Unless the process is completely enclosed the following operations during manipulation of a dangerous pesticide shall not be undertaken without an efficient exhaust draught
9 (a) empty a container holding a dangerous pesticide;
10 (b) blending a dangerous pesticide;
11 (c) preparing a liquid or powder formulation containing a dangerous pesticide; and
12 (d) changing or filling a dangerous pesticide into a container, tank, hamper or machines or small sized containers,
13 (3) In the event of a failure of the exhaust draught provided on the above operation, the said operations shall be stopped forthwith.
14 13. Time allowed for washing
15 (1) Before each meal and before the end of the day's work at least ten minutes in addition to the regular rest interval shall be allowed for washing to each worker engaged in the manipulation of dangerous pesticide.
16 (2) Every worker engaged in the manipulation of dangerous pesticides shall have a thorough wash before consuming any food and also at the end of the day's work.
17 14. Washing and bathing facilities
18 (1) There shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the factory where the said manufacturing process is carried on adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 5 persons employed.

1 (2) The washing places shall have standpipes placed at intervals of not less than one meter.
2 (3) Not less than one half of the total number of washing places shall be provided with bathrooms.
3 (4) Sufficient supply of clean towels made of suitable material shall be provided:

Provided that such towels shall be supplied individually for each worker if so ordered by the Inspector.
1 (5) Sufficient supply of soap and nail brushes shall be provided.
2 15. Cloakroom: There shall be provided and maintained for the use of all workers employed in the factory where the said manufacturing process is carried on:
3 (a) a cloakroom for clothing put off during working hours with adequate arrangements for drying clothing if wet; and
4 (b) separate and suitable arrangements for the storage of protective clothing provided under Paragraph 7.
5 16. Messroom
6 (1) There shall be provided and maintained for the use of all workers employed in the factory in which the said manufacturing process is carried on and remaining on the premises during the rest intervals a suitable messroom which shall be furnished with:
7 (a) sufficient tables and benches with back rest; and
8 (b) adequate means for warming food.
9 (2) The messroom shall be placed under the charge of a responsible person and shall be kept clean.
10 17. Manipulation not to be undertaken: Manufacture or manipulation of a pesticide shall not be undertaken in any factory unless a certificate regarding its dangerous nature or otherwise is obtained from the Chief Inspector.
11 18. Medical facilities and records of examinations and tests
12 (1) The occupier of every factory to which the Schedule applies, shall:
13 (a) employ a qualified medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories; and
14 (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
15 (2) The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by

1 the Chief Inspector of Factories which shall be kept readily available for inspection by the Inspector.
2 19. Examined by the Certifying Surgeon
3 (1) Every worker employed in the processes mentioned in Paragraph 1 shall be examined by the Certifying Surgeon within 15 days of his first employment. Such examination in respect of Halogenated pesticides, shall include tests for determination of the chemical in blood and in fat tissues, EEG abnormalities and memory tests, in respect of organo phosphorous compounds, such examinations shall include test for depression of cholinesterase in plasma and

red blood cells. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

4 (2) Every worker employed in the said processes shall be reexamined by a Certifying Surgeon at least once in every six calendar months and such examination shall, wherever the Certifying Surgeon. The record of each examination carried out under subparagraphs (1). Further every worker employed in the said processes shall also be examined once in every three months by the factory medical officer.

5 (3) The Certifying Surgeon after examining a worker, shall issue a certificate of Fitness in Form 26. The record of examination and reexamination carried out shall be entered in the certificate and the certificate shall be kept in the custody of manager of the factory. The record of each examination carried out under subparagraph (1) and (2), including the nature and he results of these tests, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.

6 (4) The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.

7 (5) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker he shall make a record of his findings in the said certificate and the Health Register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit to work in the said processes.

8 (6) No person who has been found unfit to work as said in subparagraph (5) shall be reemployed or permitted to work in the said processes unless the Certifying Surgeon after further examination again certifies him fit for employment in those processes.

9 20. Exemption: If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or the infrequency of the said manufacturing process or for any other reason which he shall record in writing all or any of the provisions of this Schedule are not necessary for the protection of the workers employed in the

1 factory, he may by a certificate in writing exempt such factory, from all or any of the provisions on such condition as he may specify therein, such certificate may at any time be revoked by the Chief Inspector after recording his reasons therefor.

APPENDIX

CAUTIONARY NOTICE

Insecticides and Pesticides

1 1. Chemicals handled in this plant are poisonous substances.

2 2. Smoking, eating food or drinking, chewing tobacco in this area is prohibited. No foodstuff or drink shall be brought in this area.

3 3. Some of those chemicals may be absorbed through skin and may cause poisoning.

4 4. A good wash shall be taken before meals.

5 5. A good bath shall be taken at the end of the shift.

6 6. Protective clothing and equipment supplies shall be used while working in this area.

7 7. Containers of pesticides shall not be used for keeping foodstuffs.

8 8. Spillage of the chemicals on any part of the body or on the floor or work-bench be immediately washed away with water.
9 9. Clothing contaminated due to splashing shall be removed immediately.
10 10. Scrupulous cleanliness shall be maintained in the area.
11 11. Do not handle pesticides with bare hands, use scoops provided with handle.
12 12. In case of sickness like nausea, vomiting, giddiness, the manager should be informed who shall make necessary arrangements for treatment.
13 13. All workers shall report for the prescribed medical tests regularly to protect their own health.

SCHEDULE XXIII
MANUFACTURING PROCESS OR OPERATIONS IN CARBON DISULPHIDE PLANTS
1 1. Application: This Schedule, shall apply to all electric furnaces in which carbon disulphide is generated and all other plants where 'carbon disulphide after generation, is condensed, refined and stored. This Schedule is in addition to and not in derogation of any of the provisions of the Act and Rules made thereunder.
2 2. Construction, Installation and Operation
3 (1) The buildings in which electric furnaces area installed and carbon disulphide after generation is condensed and refined shall be segregated from other parts of the factory and shall be of open type to ensure optimum ventilation and the plant layout shall be such that only a minimum number of workers are exposed to the risk of any fire or explosion at any one time.

1 (2) Every electric furnace and every plant in which carbon disulphide is condensed, refined and stored with all their fittings and attachments shall be of good construction, sound material and of adequate strength to sustain the internal pressure to which, furnace or the plant may be subjected to, and shall be so designed that carbon disulphide liquid and gas are in closed system during their normal working.
2 (3) The electric furnace supports shall be firmly grouted about 60 centimeters in concrete or by other effective means.
3 (4) Every electric furnace shall be installed and operated according to manufacturers' instructions and these instructions shall be clearly imparted to the personnel incharge of construction and operation.
4 (5) The instructions regarding observance of correct furnace temperature, sulphur dose, admissible current, or power consumption, and periodical checking o charcoal level shall be strictly complied with.
5 3. Electrodes
6 (1) Where upper ring electrodes made of steel are used in the electric furnace, they shall be of seamless tube construction and shall have arrangement for being connected to cooling water system through a siphon built in the electrodes or through a positive pressure water pump.
7 (2) The arrangement for cooling water referred to in sub-paragraph (1) shall be connected with automatic alarm system which will actuate in the event of interruption of cooling water in the electrodes and give visible and audible alarm signals n in control room and

simultaneously stop power supply for the furnace operation and stop the future supply of water. The alarm system and the actuating device shall be checked every day.

8 4. Maintenance of charcoal level: When any electric furnace is in operation, it shall be ensured that the electrodes are kept covered with charcoal bed.

9 5. Rupture disc and safety seal: At least two rupture discs be fitted on the off take pipe between the electric furnace and sulphur separator to prevent entry of pieces of charcoal into the condensers and piping.

10 6. Rupture disc and safety seal:

11 (1) At least two rupture discs of adequate size which shall blow off at a pressure twice the maximum operating pressure shall be provided on each furnace and shall either be mounted directly on the top of the furnace or each through an independent pipe as close as possible to the furnace

12 (2) The safety water shall be provided and tapped from a point between the charcoal separator and the sulphur separator.

13 7. Pyrometer and manometers

1 (1) Each electric furnace shall be fitted with adequate number of pyrometers to give an indication of the temperature as correctly as reasonably practicable at various points in the furnace. The dials for reading the temperatures shall be located in the control room.

2 (2) Manometers or any other suitable devices shall be provided for indicating pressure:

3 (a) in the off take pipe before and after the sulphur separator; and

4 (b) in primary and secondary condensers.

5 8. Check valves: All piping carrying carbon disulphide shall be fitted with check valves at suitable positions so as to prevent gas from flowing back into any electric furnace in the event of its shut down.

6 9. Inspection and maintenance of electric furnaces

7 (1) Every electric furnace shall be inspected internally by a competent person:

8 (a) before being placed in service after installation;

9 (b) before being placed in service after reconstruction or repairs; and

10 (c) periodically every time the furnace is opened for cleaning or de-aching or for replacing electrodes.

11 (2) When an electric furnace is shut down for cleaning or de-ashing:

12 (a) the brick lining shall be checked for continuity and any part found defective be removed;

13 (b) after removal of any part of the lining referred to in (a), the condition of the shell be closely inspected; and

14 (c) any of the plate forming shell found corroded to the extent that of the furnace is endangered shall be replaced.

15 10. Maintenance of records: The following hourly records shall be maintained in a log book,

16 (a) manometer readings at the points specified in sub-paragraph (2) of paragraph 7;

17 (b) gas temperature indicated by pyrometers and all other vital near the sulphur separator and primary and second condensers;

18 (c) water temperature and flow of water through the siphon in the electrodes;

19 (d) primary and secondary voltage and current and energy consumed.
20 11. Electrical apparatus wiring and fittings: All building in which carbon disulphide is refined or stored shall be provided with electrical apparatus, wiring and fittings which shall afford adequate protection from fire and explosion.

1 12. Prohibition relating to smoking: No person shall smoke or carry matches, fire or naked light or other means of producing a naked light or spark in buildings in which carbon disulphide is refined or stored, and a notice in the language understood by a majority of the workers shall be pasted in the plant prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked or spark into such rooms.
2 13. Means of escape: Adequate means of escape shall be provided and maintained to enable persons to move to a safe place as quickly as. possible in case of., an emergency. At least two independent staircases of adequate width shall be provided in every building housing the furnaces of reasonable intervals at opposite ends. These shall always be kept clean of all obstructions and so designed as to afford easy passage.
3 14. Warnings in case of fire: There shall be adequate arrangements for giving warning in case of fire or explosion which shall operate on electricity and in case of failure of electricity, by some mechanical means.
4 15. Fire-fighting equipment
5 (1) Adequate number of suitable fire extinguishers or other fire-fighting equipment shall be kept in constant readiness for dealing with risks involved and depending on the amount and nature of materials stored.
6 (2) Clear instructions as to how the extinguishers or other equipment should be used printed in the language which the majority of the workers employed understand, shall be affixed to each extinguisher or other equipment and the personnel trained in their use.
7 16. Bulk sulphur
8 (1) Open or semi-enclosed spaces for storage of bulk sulphur shall be sited with due regard to the dangers which may arise from sparks given off by near locomotives etc. and precautions shall be taken to see that flame, smoking and matches and other sources of ignition do not come in contact with the clouds of dust arising during handling of bulk sulphur.
9 (2) All enclosures for bulk sulphur shall be of non-combustible construction, adequately ventilated and so designed as to provide a minimum of lodges on which dust may lodge.
10 (3) The bulk sulphur in the enclosures shall be handled in such a manner as to minimise the formation of dust clouds and no flame smoking and matches or other sources of ignition shall be employed during handling, and non-speaking toll shall be used whenever sulphur is shovelled or otherwise removed by hand.
11 (4) No repairs involving flames, heat or use of hand or power tools shall be made in the enclosures where bulk sulphur is stored.

1 17. Liquid sulphur: Open flames, electric sparks and other sources of ignition, including smoking and matches, shall be excluded from the vicinity of molten sulphur.
2 18. Training and supervision

3 (1) All electric furnaces and all plants in which carbon disulphide is condensed, refined or stored shall be under adequate supervision at all times while the furnaces and plants are in operation.
4 (2) Workers in charge of operation and maintenance of electric furnaces and the plants shall be properly qualified and adequately trained.
5 19. Washing facilities
6 (1) The occupier shall provide and maintain in a clean state and in good repair, for the use of all persons employed wash place under cover with at least one tap or stand-pipe, having a constant supply of clean water for every five such persons, the taps or stand-pipe being spaced not less than 120 centimeters apart with a sufficient supply of soap and clean towels, provided that towels shall be supplied individually to each worker if so ordered by the Inspector.
7 (2) All the workers employed in the sulphur storage, handling and melting operations shall be provided with a nail brush.
8 20. Personal protective equipments
9 (1) Suitable goggles and protective cloth consisting of overalls without pockets, gloves and footwear shall be provided for the use of operator:
10 (a) when operating valves or cocks controlling fluids etc;
11 (b) drawing-off of molten sulphur from sulphur pots; and
12 (c) handling charcoal or sulphur.
13 (2) Suitable respiratory protective equipment shall be provided and stored in the appropriate place for use during abnormal conditions in an emergency.
14 (3) Arrangements shall be made for proper and efficient cleaning of all such protective equipments.
15 21. Cloak-rooms: There shall be provided and maintained for the use of all workers employed in the processes, a suitable cloak-room for clothing put-off during work hours and a suitable place separate from the cloak-room for the storage of overalls of working clothes. The accommodation so provided shall be placed in the charge of a responsible person and shall be kept clean.
16 22. Unauthorised persons: Only maintenance and repair personnel, persons directly, connected with the plant operation and those accompanied by authorised persons shall be admitted into the plant.

SCHEDULE XXIV
OPERATIONS INVOLVING HIGH NOISE LEVELS

1 1. Application: This Schedule shall apply to all operations in any manufacturing process which have high noise levels.
2 2. Definitions: For the purpose of this Schedule
3 (a) "A-weighting" means making graded adjustments-in-the-intensities of sound of various frequencies for the purpose of noise measurement, so that the sound pressure level measured by an instrument reflects the actual response of the human ear to the sound measured;

4 (b) "dBA" refers to sound level in decibels as measured on a sound level meter, operating on the A-weighting network with slow meter response;

5 (c) "decibel" means one-tenth of "Bel" which is the fundamental division of a logarithmic scale used to express the ratio of two specified or implied quantities, the number of "Bels" denoting such a ratio being the logarithm to the base of 10 of this ratio. The noise level (or the sound pressure level) corresponds to reference pressure of six x 10^{-6} newtone per square meter or 0.0002 dynes per square centimeter which is the threshold of hearing, that is, the lowest sound pressure level necessary to produce the sensation of hearing in average healthy listeners. The decibel in abbreviated form is dB;

6 (d) "first employment" shall mean first employment in areas where the noise exceeds the maximum permissible exposure levels specified in sub-paragraph (1) of paragraph 3 and shall also include re-employment in the said areas following any cessation of employment for a continuous - period exceeding three calendar months;

7 (e) “frequency" is the rate of pressure variations expressed in cycles per second or hertz;

8 (f) "high noise level" means any noise level measured on the A-weighted scale is 90 dB or above; and

9 (g) "noise" means any unwanted sound.

3. Protection against noise (1) In every factory, suitable engineering control or administrative measures shall be taken to ensure, so far as is reasonably practicable, that no worker is exposed to sound levels exceeding the maximum permissible noise exposure levels specified in Tables 1 and 2.

TABLE 1
PERMISSIBLE EXPOSURE IN CASES OF CONTINUOUS NOISE

Total time of exposure (continuous or a number of short-term exposure) per day, in hours	Sound pressures level in dBA
8	90
6	92
4	95
3	97
2	100
1-1/2	102
1	105
3/4	107
1/2	110

1/4	115

Notes:
1 (1) No exposure in excess of 115 dBR is to be permitted.
2 (2) For any period of exposure falling in between any figure and the next higher or lower figure as indicated in column 1, the permissible sound pressure level is to be determined by extrapolation on a proportionate basis.

TABLE 2
PERMISSIBLE EXPOSURE LEVELS OF IMPLOSIVE OR IMPACT NOISE

Peak sound pressure level in dB	Permitted number of impulses or impacts per day
140	100
135	315
130	1,000
125	3,160
120	10,000

Notes:
1 (1) No exposure in excess of 140 dB peak sound pressure level is permitted.
2 (2) For any peak sound pressure level falling in between any figure and the next higher or lower figure as indicated in Column 1, the permitted

1 number of impulses or impacts per day is to be determined by extrapolation on a proportionate basis.
2 (3) For the purposes of this Schedule, if the variations in the noise level involve maxima at intervals of one second or less, the noise is to be considered as a continuous one and the criteria given in Table 1 would apply. In other cases, the noise is to be considered as impulsive or impact noise and the criteria given in Table 2 would apply
3 (4) When the daily noise exposure is composed of two or more periods of noise exposure at different levels their combined effect should be considered, rather than the individual effect of each. The mixed exposure should be considered to exceed the limit value if the sum of the fractions C1 + C2 Cn/T1 + T2 Tn excess unity

where the C1, C2, etc. indicated the total time or actual exposure at a specified noise level and T1, T2, etc. denote the time of exposure permissible at that level. Noise exposure of less than 90 dbas may be ignored in the above calculation.
1 (5) Where it is not possible to reduce the noise exposure to the levels specified in sub-rule (1) bit reasonably practicable engineering control or administrative measure, the noise exposure shall be reduced to the greatest extent feasible by such control measures and each

worker so exposed shall be provided with suitable ear protectors so as to reduce the exposure to noise to the levels specified in sub-rule (1).

2 (6) Where the ear protectors provided in accordance with sub-paragraph (2) and worn by a worker cannot still attenuate the noise reaching near his ear, as determined by subtracting the attenuation value in dBA of the ear protectors concerned from the measured sound pressure level, to a level permissible under Table 1 or Table 2 as the case may be, the noise exposure period shall be suitably reduced to correspond to the permissible noise exposure specified in sub-paragraph (1).

3 (7)

4 (a) In all cases where the prevailing sound levels exceeds the permissible levels specified in sub-paragraph (1) there shall be administered an effective hearing conservation programme which shall include among other hearing conservation measures, pre-employment and periodical auditory surveys conducted on workers exposed to noise exceeding the permissible levels, and rehabilitation of such workers either by reducing the exposure to the noise levels or by transferring them to places where noise levels are relatively less or by any other suitable means.

5 (b) Every worker employed in areas where the noise exceeds the maximum permissible exposure levels specified in sub-rule (1) shall be subjected to an auditory examination by a Certifying Surgeon within 14 days of his first

employment and thereafter, shall be re-examined at least once in every 12 months. Such initial and periodical examinations shall include tests which the Certifying Surgeon may consider appropriate, and shall include determination of auditory thresholds for pure tones of 125, 250, 500, 1000, 2000, 4000 and 8000 cycles per second.

SCHEDULE XXV

MANUFACTURE OF RAYON BY VISCOSE PROCESSES

1 1. Definitions: For the purposes of this Schedule,

2 (a) "Approved" means approved for the time being in writing by the Chief Inspector;

3 (b) "breathing apparatus" means a helmet or face piece with necessary connection by means of which the person using it in poisonous, as phyxioating or irritant atmosphere breathes unpolluted air, or any other approved apparatus;

4 (c) "churn" means the vessel in which alkali cellulose pulp is treated with carbon disulphide;

5 (d) "dumping" means transfer of cellulose xenthate from a dry churn to dissolve;

6 (e) "efficient exhaust draught" means localised ventilation by mechanical means for the removal of any gas or vapour, so as to prevent it from escaping into the air of any place in which work is carried on. No draught shall be deemed to be efficient if it fails to control effectively any gas or vapour generated at the point where such gas or fume originate;

7 (f) "first employment" shall mean first employment in the fume process and shall also include re-employment in the said process following any cessation of employment for a continuous period exceeding three calendar months;

8 (g) "fume process" means any process in which carbon disulphide or hydrogen sulphide is produced, used or given off;

9 (h) "life belt" means a belt made of leather or other suitable material 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 of a man; and

10 (i) "protective equipment" means apron, goggles, face shields, footwear, gloves and overalls made of suitable materials.

11 2. Ventilation

12 (1) In all workrooms where a fume process is carried on adequate ventilation by natural or mechanical means shall be provided so as to control, in association with other control measures, the concentration of carbon-disulphide and hydrogen sulphide in the air of every work environment, within the permissible limits.

1 (2) Notwithstanding the requirements in sub-paragraph (1) an efficient exhaust draught shall be provided and maintained to control the concentration t of carbon disulphide and hydrogen sulphide in the air at the following locations:

2 (a) dumping hoppers of dry churns;

3 (b) spinning machines;

4 (c) trio-rollers and cutters used in staple fibre spinning;

5 (d) hydro-extractors for yarn cakes;

6 (e) after treatment processes; and

7 (f) spin baths.

8 (3) Insofar as the spinning machine and trio-roller and cutters used in staple fibre spinning are concerned, they shall be, for the purpose of ensuring the effectiveness of the exhaust draught to be provided as required in sub-paragraph (1), enclosed as fully as practicable and provided with suitable shutters in sections to enable the required operations to be carried out without giving rise to undue quantities of carbon-di-sulphide and hydrogen sulphide escaping to the work environment

9 (4) No dry chum shall be opened after completion of reaction without initially exhausting the residual vapours of carbon-di-sulphide by operation of a suitable and efficient arrangement for exhausting the vapours which shall be continued to be operated so long as the churn is kept opened.

10 (5) Whenever any ventilation apparatus normally required for the purpose of meeting the requirements is sub-paragraphs (2), (3) and (4) is ineffective, fails or is stopped for any purpose whatsoever, all persons shall be required to leave the work areas where the equipment or processes specified in the above said sub-paragraphs are in use, as soon as possible and in any case not later than 15 minutes after such occurrence.

11 (6)

12 (i) All ventilation systems provided for the purposes as required in sub-para-graphs (2), (3) and (4) shall be examined and inspected once every week by a responsible person, it shall be thoroughly examined and tested by a competent person once in every period of 12 months. Any defects found by such examination or test shall be rectified forthwith.

13 (ii) A register containing particulars of such examination and tests, and the state of the systems and the repairs or alternations (if any) found to be necessary shall be kept and shall be available for inspection by an Inspector.

1 3. Waste from spinning machines: Waste yarn from the spinning machines shall be deposited in suitable containers provided with close fitting covers. Such waste shall be disposed of quickly as possible after decontamination.
2 4. Lining of Dry Churns: The inside surface of all dry churns shall be coated with a non-sticky paint so that cellulose xanthate will not stick to the surface of the churn. Such coating shall be maintained in a good condition.
3 5. Air monitoring
4 (1) To ensure the effectiveness of the control measures, monitoring of carbon-disulphide and hydrogen sulphide in air shall be carried out once at least in every shift and the record of the results so obtained shall be entered in a register specially maintained for the purpose.
5 (2) For the purpose of the requirement in sub-paragraph (1), instantaneous gas detector tubes shall not be used. Samples shall be collected over a duration of not less than 10 minutes and analysed by an approved method. The locations where such monitoring is to be done shall be as directed by the Inspector.
6 (3) If the concentration of either carbon-disulphide or hydrogen sulphide exceeds the permissible limits for such vapour or gas as laid down in Second Schedule appended to Section 41-F of the Act, suitable steps shall be taken for controlling the concentration in air of such occurrence.
7 6. Prohibition to remain in fume process room: No person during his intervals for meal, or rest shall remain in any room wherein fume process is carried on.
8 7. Prohibition relating to employment of young persons: No young person shall be employed or permitted to work in any fume process or in any room in which any such process is carried on.
9 8. Protective equipments
10 (1) The occupier shall provide and maintain in good condition protective equipments as specified in the table for use of persons employed in the processes referred to therein.

TABLE

Process	Protective equipment
1 1. Dumping	Overalls, face-shields, gloves and foot-wear—all made of suitable material.
1 2. Spinning	Suitable aprons, gloves and footwear.

1 3. Process involving or likely to involve contact with viscose solution	Suitable gloves and footwear.
1 4. Handling of sulphuric acid	Suitable chemical goggles.
1 5. Any other process involving contact with hazardous chemicals	Protective equipment as may be directed by the Chief Inspector by an order in writing.

1 (2) A suitable room, rooms or lockers shall be provided exclusively for the storage of all the protective equipment supplied to workers and no such equipment shall be stored at any place other than the room, rooms or lockers so provided.
2 9. Breathing apparatus
3 (1) There shall be provided in every factory where fume process is carried on sufficient supply of:
4 (a) breathing apparatus;
5 (b) oxygen and suitable appliances for its administration; and
6 (c) life belts.
7 (2)
8 (i) The breathing apparatus and other appliances referred to in sub-paragraph (1) shall be maintained in good condition and kept in appropriate locations so as to be readily available.
9 (ii) The breathing apparatus and other appliances referred to in clauses (a) and (b) of sub-paragraph (1) shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.
10 (iii) A record of the maintenance and of the condition of the breathing apparatus and other appliances referred to in sub-clause (1) shall be entered in a register provided for that purpose which shall be readily available for inspection by an Inspector.
11 (3) Sufficient number of workers shall be trained and periodically, retained in the use of breathing apparatus and administering artificial respiration so that at least 2 such trained persons would be available during all the working hours in each room in which fume process is carried on.
12 (4) Breathing apparatus shall be kept properly labelled in clean, dry, lightproof cabinets and if liable to the effect by fumes, shall be protected by placing them in suitable containers.

1 (5) No person shall be employed to perform any work specified in sub-para-graph (1) for which breathing apparatus is necessary to be provided under that sub-paragraph unless he has been fully instructed in the proper use of that equipment.
2 (6) No breathing apparatus provided in pursuance of sub-paragraph (1) which has been worn by a person shall be worn by another person unless it has been thoroughly cleaned and

disinfected since last being worn and the person has been fully instructed in the proper use of that equipment.

3 10. Electric fittings: All electric fittings in any room in which carbondisulphide is produced, used or given off or is likely to be given off in the work environment, other than a spinning room shall be of flame-proof construction and all electric conductors shall either be enclosed in metal conduit or be lead-sheated.

4 11. Prohibition relating to smoking etc: No person shall smoke or carry matches, fire or naked light or other means of producing naked light or spark in a room in which fume process is carried on. A notice in the language understood by the majority of the workers shall be posted in prominent locations in the plant 'prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked light or spark into such rooms:

Provided that fire, naked light or other means of producing naked light or spark may be carried on in such room only when required for the purposes of the process itself under the direction of a responsible person.

1 12. Washing and bathing facilities

2 (1) There shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the processes covered by the Schedule, adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 25 persons employed.

3 (2) The washing places shall have standpipes placed at intervals of less than one meter.

4 (3) Not less than one half of the total number of washing places shall be provided with bathrooms.

5 (4) Sufficient supply of clean towels made of suitable material shall be provided

Provided that such towels shall be supplied individually for each worker if so ordered by the inspector.

1 (5) Sufficient supply of soap and nail brushes shall be provided.

2 13. Rest room

3 (1) A rest room shall be provided for the workers engaged in doffing operations of filament yam spinning process.

1 (2) Such rest room shall be provided with fresh air supply and adequate seating arrangement.

2 14. Cautionary notice and instructions

3 (1) The following cautionary notice shall be prominently displayed in each fume process room.

Cautionary Notice

1 1. Carbon-disulphide (C; S) and Hydrogen sulphide (H; S) which may be present in this room are hazardous to health.

2 2. Follow safety instructions.

3 3. Use protective equipment and breathing apparatus as and when required.

4 4. Smoking is strictly prohibited in this area.

This notice shall be in a language understood by the majority of the workers and-displayed-where-it-can be-easily and conveniently read. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice so displayed.

1 (2) Arrangements shall be made to instruct each worker employed in any room in which a fume process is carried on regarding the health hazards connected with their work and the preventive measures and methods to protect themselves. Such instructions shall be given on his first employment and repeated periodically.

2 (3) Simple and special instructions shall be framed to ensure that effective measures will be carried out in case of emergency involving escape of carbon-disulphide and hydrogen sulphide. These instructions shall be displayed in the concerned areas and workers shall be instructed and trained in the actions to be taken in such emergencies.

3 15. Medical facilities and records of examinations and tests

4 (1) The occupier of each factory to which this Schedule applies, shall:

5 (a) employ a qualified medical officer for medical surveillance of the workers employed in the fume process whose employment shall be subject to the approval of the Chief Inspector of Factories; and

6 (b) provide to the said medical officer all the necessary facilities for the purpose referred to in clause (a).

7 (2) The record of medical examination and appropriate tests carried out by the said medical officer shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

8 16. Medical examination by the Certifying Surgeon

1 (1) Every worker employed in the fume process shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for estimation of exposure co-efficient (iodineazide test on urine), and cholesterol as well as Electrocardiogram (ECG) and Central Nervous System (CNS) tests. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

2 (2) Every worker employed in the fume process shall be re-examined by a Certifying Surgeon at least once in every twelve calendar months. Such examination shall, wherever the Certifying Surgeon considers appropriate, include all the tests as specified in sub-paragraph (1).

3 (3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 26. The record of re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody, of the Manager of the Factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.

4 (4) The Certificate of Fitness and the Health Register shall be kept re (11 a y available for inspection by the Inspector.

5 (5) If at any time the Certifying Surgeon is of opinion that a worker is no longer fit for employment in the fume process on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate

and the Health Register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the fume process.

6 (6) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the fume process unless the Certifying Surgeon, after further examination again certifies him fit for employment in such process.

7 17. Exemption: If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstance or infrequency of the processes or for any other reason, all or any of the provisions of this Schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

SCHEDULE XXVI

HIGHLY FLAMMABLE LIQUIDS AND FLAMMABLE COMPRESSED GASES

1 1. Application: These rules will be applicable to all factories where highly flammable liquid or flammable compressed gases are manufactured, stored, handled or used.

2 2. Definitions: For the purposes of this Schedule,

(a) "flammable compressed gas" means flammable compressed gas as defined in Section 2 of the Static and Mobile Pressure Vessels (Unfired) Rules, 1981 framed under the Explosives Act, 1984; and

(b) "highly flammable liquid" means any liquid including its solution, emulsion or suspension which when tested in a manner specified by Sections 14 and 15 of the Petroleum Act, 1934 (Act No. 30 of 1934), gives off flammable vapours at temperature less than 32 degrees centigrade.

3. Storage

(1) Every flammable liquid or flammable compressed gas used in every factory shall be stored in suitable fixed storage tank, or in suitable closed vessel located in a safe position under the ground, in the open or in a store room of adequate fire resistant construction.

(2) Except as necessary for use, operation or maintenance, every vessel or tank which contains or had contained a highly flammable liquid or flammable compressed gas shall be always kept closed and all reasonably practicable steps shall be taken to contain or immediately drain off to a suitable container any spill or leak that may occur.

(3) Every container, vessel, tank, cylinder, or store room used for storing highly flammable liquid or flammable compressed gas shall be clearly and in bold letters marked "Danger—Highly Flammable Liquid" or "Danger— Flammable Compressed Gas".

4. Enclosed systems for conveying highly Flammable Liquids: Wherever it is reasonably practicable, highly flammable liquids shall be conveyed within a factory in totally enclosed systems consisting of pipelines, pumps and similar appliances from the storage tank or vessel to the point of use., Such enclosed system shall be so designed, installed, operated and maintained as to avoid leakage or the risk of spilling.

5. Preventing formation of Flammable Mixture with Air: Wherever there is a possibility for leakage or spill of highly flammable liquid or flammable compressed gas from an equipment, pipeline, valve, joint or other part of a system, all practicable measures shall be taken to

contain, drain-off or dilute such spills or leakage as to prevent formation of flammable mixture with air.

6. Prevention of Ignition

(1) In every room, work place or other location where highly flammable liquid or flammable compressed gas is stored, conveyed, handled or used or where there is danger of fire or explosion from accumulation of highly flammable liquid or flammable compressed gas in air, all practicable measures shall be taken to exclude the sources of ignition. Such precautions shall include the following:

(a) all electrical apparatus shall either be excluded from-the area of risk or they shall be of such construction and so installed and maintained as to prevent the danger of their being a source of ignition;

(b) effective measures shall be adopted for prevention of accumulation of static charges to a dangerous extent;

(c) no person shall wear or be allowed to wear any footwear having iron or steel nails or any other exposed ferrous material which is likely to cause sparks by friction;

(d) smoking, lighting or carrying of matches, lighters or smoking material shall be prohibited;

(e) transmission belts with iron fasteners shall not be used; and

(f) all other precautions, as are reasonably practicable shall be taken to prevent initiation of ignition from all other possible sources such as open flames, all frictional sparks overheated surface of machinery or plant, chemical or physical-chemical reaction and radiant heat.

7. Prohibition of smoking: No person shall smoke in any place where highly flammable liquid or flammable compressed gas is present in circumstances that smoking would give rise to a risk of fire. The occupier shall take all practicable measures to ensure compliance with this requirement including display of a bold notice indicating prohibition of smoking, at every place where this requirement applies.

8. Fire Fighting: In every factory where highly flammable liquid or flammable compressed gas is manufactured, stored, handled or used, appropriate and adequate means of fighting a fire shall be provided. The adequacy and suitability of such means which expression includes the fixed and portable fire extinguishing systems, extinguishing material, procedures and the process of fire-fighting, shall be to the standards and levels prescribed by the Indian Standards applicable, and in any case not inferior to the stipulation under Rule 61.

9. Exemptions: If in respect of any factory, the Chief Inspector is satisfied that owing the exceptional circumstances of infrequency of the processes or for any other reason, all or any of the provisions of this Schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.]

64[SCHEDULE XXVII

CARPET AND WOOLLEN DRUGGET MAKING OR ANY WORK INCIDENTAL THERETO OR CONNECTED THEREWITH

1 1. Definition

2 (a) "Efficient exhaust draught" means localized ventilation affected by mechanical means for the removal of gas, vapour, dust or fumes at the point where they originate 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 smoke generated at the point where such gas, vapour, fume or dust originate.

(b) "First employment" means first employment in any process mentioned under paragraph 2 and yarn dyeing process, and shall also include re-employment in the said process following any cessation of employment for a continuous period exceeding three calendar months.
2. 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) Carding and spinning of raw fibre;
(b) Weaving.
3. 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 2, or at any place where such operations are carried on or at yarn dyeing process.
4. Ventilation: Every workroom shall be provided with inlets and outlets of adequate size so as to secure and maintain efficient ventilation ' all parts of the room.
5. Protective equipments and clothing
(i) The occupier of the factory shall provide and maintain dust respirator for all persons employed in process included under paragraph 2.
(ii) The occupier shall provide and maintain protective clothings, gloves for all persons employed in dyeing process.
i 6. Medical facilities and records of examinations and tests: (1) The occupier of every factory in which the carpet and woollen drugget manufacturing process is carried on shall:

(a) employ a qualified medical practitioner for medical surveillance of the workers employed therein, whose employment shall be subjected to the approval of the Chief Inspector of Factories; and
i (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a). (2) The records of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

7. Medical examination by Certifying Surgeon
(i) Every worker employed in any of the processes specified in paragraph 2 and in yarn dyeing process shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for detection of methaemoglobin in blood, or para nitro phenol in urine, test for central nervous system function, pulmonary function test and chest X-ray. No worker shall be

i allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

ii (ii) Every worker employed in the said process shall be re-examined by a Certifying Surgeon at-least once in every 12 calendar months and such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests for detection of methaemoglobin in blood, or para nitro phenol in urine, test for central nervous system function, pulmonary function test and chest X-ray once in every 3 years.

iii (iii) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 26. The record of examination and re-examination carried out shall be kept in the custody of the Manager of the factory. The records of each examination carried under sub-paragraphs (i) and (ii), including the nature and results of the tests, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.

iv (iv) The Certificate of Fitness and the Health Register shall be readily available for inspection by the Inspector.

SCHEDULE XXVIII

BRASSWARE MAKING OR ANY WORK INCIDENTAL THERETO OR CONNECTED THEREWITH

1. Definitions (a) "Efficient exhaust draught" means localized ventilation affected by mechanical means for the removal of gas, vapour, dust or fumes the point where they originated so as to prevent them from escaping into the air of any place in which work is carried on. No exhaust draught shall be deemed efficient, which fails to remove smoke generated at the point where such gas, vapour, fume or dust originate.

(b) "First employment" means first employment in any process mentioned under paragraph 2 and shall also include re-employment in the said process following any cessation of employment for a continuous period exceeding three calendar months.

(c) "Dressing or fettling operation" includes stripping and other removal of adherent sand, cores, runners, risers, flash and other surplus metal from a casting and the production of reasonably clean and smooth surface, but does not include (a) the removal of metal from a casting when performed incidentally in connection with the machining or assembling of castings after they have been dressed or fettled, or (b) any operation which is a knock-out operation within the meaning of this Schedule.

(d) "knock-out operation" means all methods of removing castings from moulds and the following operations, when done in connection therewith, namely, stripping, coring-out and the removal of runners and risers.

1 2. Exhaust draught

2 (1) 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:

3 (a) casting process;

4 (b) buffing and polishing of brass articles;

5 (c) electroplating of brass article using electrolyte;

6 (d) degreasing and cleaning.

7 (2) Such draught shall be provided by mechanical means and shall operate on dust, vapour or spray given off in the process as nearby as may be at the point of origin. The exhaust

draught shall be so constructed, arranged and maintained as to prevent the dust, vapour or spray entering into any workroom or place in which work is carried on.

8 3. 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 2(c) and 2(d) or at any place where such operations are carried on.

9 4. Arrangement and 'storage: For purposes of promoting safety and cleanliness in workrooms the following requirements shall be observed,

10 (a) Moulding boxes, loam plates, ladles patterns, pattern plates, frames, boards, box weights and other heavy articles shall be so arranged and placed as to enable work to be carried on without unnecessary risk;

11 (b) suitable and conveniently accessible racks, bins or other receptacles shall be provided and used for the storage of other gear and tolls;

12 (c) where there is bulk storage of sand, fuel, metal scrap or other materials or residues, suitable bins, bunkers or other receptacles shall be provided for the purpose of such storage.

13 5. Cleanliness of Indoor Workplaces

14 (1) All accessible parts of the walls of every indoor workplace in which the casting processes are carried on and of everything affixed to those walls shall be effectively cleaned by a suitable method to a height of not less than 4.2 metres from the floor at least once in every period of fourteen months. A record of the carrying out of every such. effective cleaning in paragraph including the date, shall be maintained.

15 (2) Effective cleaning by a suitable method shall be carried out at least once every working day, of all accessible parts of the floor of every indoor workplace in which the processes are carried on, other than parts which are of sand; and the parts which are of sand shall be kept in good order.

16 6. Manual operations involving molten metal

1 (1) There shall be provided and properly maintained for all persons employed on manual operations involving molten metal with which they are liable to be splashed, a working space for that operation:

2 (a) which is adequate for the safe performance of the work; and

3 (b) which, so far as reasonably practicable, is kept free from obstruction.

4 (2) Any operation involving the carrying by hand of a container holding molten metal shall be performed on a floor all parts of which, where any person walks while engaged in the operation, shall be on the same level:

Provided that, where necessary to enable the operation to be performed without undue risk, nothing in this paragraph shall prevent the occasional or exceptional use of a working space on a different level from the floor, being a space provided with a safe means of access from the floor for any person while engaged in the operation.

1 7. Dust and Fumes

2 (1) Open coal, coke or wood fires shall not be used for heating or drying ladles inside a workroom unless adequate measures are taken to prevent, so far as practicable, fumes or other impurities from entering into or remaining in the atmosphere of the workroom.

3 (2) No open coal, coke or wood fires shall be used for drying moulds except in circumstances in which the use of such fires is unavoidable.
4 (3) Mould stoves, core stoves and annealing furnaces shall be so designed, constructed, maintained and worked as to prevent, so far as practicable, offensive or injurious fumes from entering into any workroom during any period when a person is employed therein.
5 (4) All knock-out operations shall be carried out:
6 (a) in a separate part of the foundry suitably partitioned off; being a room or part in which so far as reasonably practicable, effective and suitable local exhaust ventilation and a high standard of general ventilation are provided; or
7 (b) in an area of foundry in which, so far as reasonably practicable, effective and suitable local exhaust ventilation is provided, or where compliance with this requirement is not reasonably practicable, a high standard of general ventilation is provided.
8 (5) All dressing or fettling operations shall be carried out:
9 (a) in a separate room or in a separate part of the foundry suitably partitioned off; or
10 (b) in an area of the foundry set apart fol. the purpose; and shall, so far as reasonably practicable, be carried out with effective and suitable local

exhaust ventilation or other equally effective means of suppressing dust, Operating-as near as possible to the point of origin of the dust.
8. Disposal of dross and skimmings: Dross and skimmings removed from the molten metal or taken from a furnace shall be placed forthwith in a suitable receptacle.
9. Floor or workroom
(1) The floor of every room in which the processes specified in paragraphs 2(i)(c) and 2(i)(d) are 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) the floor shall be cleaned daily.
(2) Floors of indoor workplaces in which the processes are carried on, other than parts which are of sand, shall have an even surface of hard material.
(3) No part of the floor of any such indoor workplace shall be of sand except where this is necessary by reason of the work done.
(4) All parts of the surface of the floor of any such indoor workplace are of sand shall, so far as practicable, be maintained in an even and firm condition.
10. Ventilation: Every workroom shall be provided with inlets and outlets of adequate size, so as to secure and maintain efficient ventilation to all parts of the room.
11. Protective clothing and protective equipment
(1) The occupier of the factory shall provide and maintain the following protective clothing for use of workers who may come in contact with liquid, employed in process specified in paragraph 2(i)(c):
(a) waterpoof apron and bib; and
(b) loose rubber gloves and rubber boots or any other waterproof boots.
(2) The occupier of the factory shall provide and maintain adequate arrangements and place for keeping and drying the protective clothing for the use of workers employed in the factory.

(3) The occupier of the factory shall provide and maintain suitable respirator for all workers employed in processes specified in paragraphs 2(i)(a) and 2(i)(b).

12. Medical facilities and records of examination and tests

(1) The occupier- of every factory in which processes specified in paragraph 2 are carried on shall:

(a) employ a qualified medical practitioner for medical surveillance of the workers employed therein, whose employment shall be subjected to the approval of the Chief Inspector of Factories;

(b) provide to said medical practitioner all the necessary facilities for the purpose referred to in clause (a); and

(c) provide and maintain a sufficient supply of suable ointment and impermeable waterproof plaster in a separate box readily accessible to the workers and used solely for the purpose of keeping the ointment and the plaster.

(2) The records of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

(3) The medical practitioner shall examine all workers specified in paragraph 2(i)(c) before they are employed in electroplating process. Such examination shall include inspection of hands, forearms and nose.

(4) The records of examination referred to in sub-paragraph (3) shall be maintained in a separate register, approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

13. Medical Examination by Certifying Surgeon

(1) Every worker employee any of the processes specified in paragraph 2, shall be examined by a Certifying Surgeon within 15 days of his first employment, such examination shall include test for chromium, nickel or cadmium in urine, pulmonary function test and chest X-ray. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2) Every worker employed in the said process shall be re-examined by a Certifying Surgeon at least once in every 12 calendar months and such re-examination shall, wherever the Certifying Surgeon considers appropriate, include test for chromium, nickel or cadmium in urine, pulmonary function test and chest X-ray once in every 3 years.

(3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 26. The record of examination and re-examinations carried out shall be kept in the custody of the Manager of the factory. The records of each examination carried out under sub-paragraphs (1) and (2), including the nature and results of the tests, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.

(4) The Certificate of Fitness and the Health Register shall be readily available for inspection by the Inspector.

14. Mess-room: There shall be provided and maintained for the use of all workers employed in the processes specified in paragraph 2 and remaining on the premises during the meal intervals, suitable mess-room, which shall be furnished with sufficient tables and benches under supervision of a responsible person.

1 15. Washing facilities
2 (1) There shall be provided and maintained in a clean state and in good repair for the use of all persons employed in the processes specified in paragraph 2:
3 (a) a wash place under cover with either,
4 (i) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 cms for every five such persons employed at any time, and having a constant supply of water from taps or jets above trough at intervals of not more than 60 cms; or
5 (ii) at least one washbasin 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; and
6 (b) a sufficient supply of clean towels made of suitable materials renewed daily with supply of soap or other suitable cleansing material and of nail brushes.
7 16. Food, drink, etc. prohibited in workroom: No food, drink, pan and supari or tobacco shall be consumed or brought by any worker into any-room in which the processes specified in paragraph 2 are carried on.

SCHEDULE XXIX
LOCK AND HARDWARE MAKING OR ANY OTHER WORK INCIDENTAL THERETO OR CONNECTED THEREWITH
1 1. Definitions
2 (a) "Efficient exhaust draught" means localized ventilation affected by mechanical means for the removal of gas, vapour, dust or fumes at the point where they originate so as to prevent them from escaping into the air of any place in which work is carried on. No exhaust draught shall be deemed _efficient, which fails to remove smoke generated at the point where such gas, vapour, fume or dust originate;
3 (b) "First employment" means first employment in any process mentioned under paragraph 2 and shall also include re-employment in the said process following any cessation of employment for a continuous period exceeding three calendar months;
4 (c) "dressing or fettling operation" include stripping and other removal of adherent sand, cores, runners, risers, flash and other surplus metal from a casting and the production of reasonably clean and smooth surface, but does not include (a) the removal of metal from a casting when performed incidentally in connection with the machining or assembling of castings after they have been dressed or

fettled, or (b) any operation which is a knock-out operation within the meaning of this Schedule;
(d) "knock-out operations" means all methods of removing castings from moulds and the following operations, when done in connection therewith, namely, stripping, carrying out and the removal of runners and risers.
2. Exhaust draught
(1) 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) casting the metal parts;

(b) metal finishing operations involving buffing and polishing;
(c) all such processes in which electroplating is carried on by using electrolyte;
(d) spray painting.
(2) Such draught shall be provided by mechanical means and shall operate on dust, vapour or spray given off in the process as nearby as may be at the point of origin. The exhaust draught shall be so constructed, arranged and maintained as to prevent the dust, vapour or spray entering into any workroom or place in which work is carried on.
3. Prohibition relating to women and young persons: No woman or young person shall be employed or permitted in any of the operations specified in paragraphs 2(c) and 2(d) or at any place where such operations are carried on.
4. Arrangement and storage: For the purposes of promoting safety and cleanliness in workrooms the following requirements shall be observed,
(a) moulding boxes, loam plates, ladles patterns, pattern plates, frames, boards, box weights and other heavy articles shall be so arranged and placed as to enable work to be carried on without unnecessary risk;
(b) suitable and conveniently accessible racks, bins or other receptacles shall be provided and used for the storage of other gear and tools;
(c) where there is bulk storage of sand, fuel, metal scrap or other materials or residues, suitable bins, bunkers or other receptacles shall be provided for the purpose of such storage.
5. Cleanliness of indoor workplaces
(1) All accessible parts of the walls of every indoor workplace in which the casting processes are carried on and of everything affixed to those walls shall be effectively cleaned by a suitable method to a height of not less than 4.2 metres from the floor at least once in every period of fourteen months. A record of the

1 carrying out of every such effective cleaning in pursuance of this paragraph including the date shall be maintained.
2 (2) Effective cleaning by a suitable method shall be carried out at least once every working day of all accessible parts of the floor of every indoor workplace in which the processes are carried on, other than parts which are of sand, and the parts which are of sand shall be kept in good order.
3 (3) Floors of indoor workplaces in which the processes are carried on, other than parts Which are of sand, shall have an even surface of hard material.
4 (4) No part of the floor of any such indoor workplace shall be of sand except where this is necessary by reason of the work done.
5 (5) All parts of the surface of the floor of any such indoor workplace are of sand shall, so far as practicable, be maintained in an even and firm condition.
6 6. Manual operations involving molten metal
7 (1) There shall be provided and properly maintained for all persons employed on manual operations involving molten metal with which they are liable to be splashed, a working space for that operation:
8 (a) which is adequate for the safe performance of the work; and
9 (b) which, so far as reasonably practicable, is kept free from obstruction.

10 (2) Any operation involving the carrying by hand of a container holding molten metal shall be performed on a floor, all parts of which where any person walks while engaged in the operation, shall be on the same level:

Provided that, where necessary to enable the operation to be performed without undue risk, nothing in the paragraph shall prevent the, occasional or exceptional use of a working space on a different level from the floor, being a space provided with a safe means of access from the floor for any person while engaged in the operation.

1 7. Dust and Fumes

2 (1) Open coal, coke or wood fires shall not be used for heating or drying ladles inside a workroom unless adequate measures are taken to prevent, so far as practicable, fumes or other impurities from entering into or remaining in the atmosphere of the workroom.

3 (2) No open coal, coke or wood fires shall be used for drying moulds except in circumstances in which the use of such fires is unavoidable.

4 (3) Mould stoves, core stoves and annealing furnaces shall be so designed, constructed, maintained and worked as to prevent, so far as practicable, offensive or injurious fumes from entering into any workroom during any period when a person is employed therein.

5 (4) All knock-out operations shall be carried out

(a) in a separate part of the foundry suitably partitioned off, being a room or part in which so far as reasonably practicable, effective and suitable local exhaust ventilation and a high standard of general ventilation are provided; or

(b) in area of the foundry in which, so far as reasonably practicable, effective and suitable local exhaust ventilation is provided, or where compliance with this requirement is not reasonably practicable, a high standard of general ventilation is provided.

(5) All dressing or fettling operations shall be carried out

(a) in a separate room or in a separate part of the foundry suitably partitioned off; or

(b) in an area of the foundry set apart for-the purpose; and-shall, so -far.as reasonably practicable, be carried out with effective and suitable local exhaust ventilation or other equally effective means of suppressing dust, operating as near as possible to the point of origin of the dust.

8. Disposal of dross and skimmings: Dross and skimmings removed from the molten metal or taken from a furnace shall be placed forthwith in a suitable receptacle.

9. Floor of workroom

(1) The floor of every room in which the processes specified in paragraph 2(1)(c) are carried on shall be:

(a) of cement or similar material so as to be smooth and impervious to water;

(b) maintained in sound condition.

(2) The floor shall be cleaned daily in processes specified in paragraph 2.

(3) Floors of indoor workplaces in which the casting processes are carried on, other than parts which are of sand, shall have an even surface of hard material.

(4) No part of the floor of any such indoor workplace shall be of sand except where this is necessary by reason of the work done.

(5) All parts of the surface of the floor of any such indoor workplace are of sand shall, so far as practicable, be maintained in an even and firm condition.
10. Ventilation: Every workroom shall be provided with inlets and outlets of adequate size, so as to secure and maintain efficient ventilation to all parts of the room.
11. Protective clothing and protective equipment
(1) The occupier of the factory shall provide and maintain the following protective clothing for use of workers who may come in contact with liquid, employed in process specified in paragraph 2(1)(c):
(a) waterproof apron and bib; and

(b) loose rubber gloves and rubber boots or any other waterproof boots.
(2) The occupier of the factory shall provide and maintain adequate arrangements and place for keeping and drying the protective clothing for the use of workers employed in the factory.
(3) The occupier of the factory shall provide and maintain suitable respirator for all workers employed in processes specified in paragraphs 2(1)(a) and 2(1)(b).
12. Medical facilities and records of examination
(1) The occupier of every factory in which processes specified in paragraph 2 are carried on shall:
(a) employ a qualified, medical practitioner for medical surveillance of the workers employed therein, whose employment: shall be subjected to the approval of the Chief Inspector of Factories;
(b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a); and
(c) provide and maintain a sufficient supply of suitable ointment and impermeable waterproof plaster in a separate box readily accessible to the workers and used solely for the purpose of keeping the ointment, and the plaster.
(2) The records of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories which shall be kept readily available for inspection by the Inspector.
(3) The medical practitioner shall examine all workers specified in paragraph 2(1)(c) before they are employed in electroplating process. Such examination shall include inspection of hands, forearms and nose.
13. Medical examination by Certifying Surgeon
(1) Every worker employed in any of the processes specified in paragraph 2, shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include test for chromium, cadmium or nickel in urine, pulmonary function test and chest X-ray. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
(2) Every worker employed in the said process shall be re-examined by a Certifying Surgeon at least once in every 12 calendar months and such re-examination shall, wherever the Certifying Surgeon considers appropriate, include test for chromium, cadmium or nickel in urine, pulmonary function test and chest X-ray once in every 3 years.
1 (3) The Certifying Surgeon, after examining a worker, shall issue a Certificate of Fitness in Form 26. The record of examination and re-examinations carried out shall be kept in the

custody of the Manager of the factory. The records of each examination carried out under sub-paragraphs (i) and (ii), including the nature and results of the tests, shall also be entered by the Certifying Surgeon in a Health Register in Form 27.

2 (4) The Certificate of Fitness and the Health Register shall be readily available for inspection by the Inspector.

3 14. Mess-room: There shall be provided and maintained for the use of all workers employed in the processes specified in paragraph 2 and remaining on the premises during the meal intervals, a suitable mess-room, which shall be furnished with sufficient tables and benches under supervision of a responsible person.

4 15. Washing facilities: There shall be provided and maintained in a clean state and in good repair for the use of all persons employed in the processes specified in paragraph 2:

5 (a) a wash place under cover with either:

6 (i) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 cms for every five such persons employed at any time, and having a constant supply of water from taps or jets above trough at intervals of not more than 60 cms; or

7 (ii) at least one washbasin 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; and

8 (b) a sufficient supply of clean towels made of suitable materials renewed daily with supply of soap or other suitable cleansing materials and of nail brushes.

9 16. Food, drink etc. prohibited in workroom: No food, drink, pan and supari or tobacco shall be consumed or brought by any worker into any room in which the processes specified in paragraph 2 are carried on.

1Subs, bv Noti. No. 607(V)/XXXVI-3—78-2045(F)-74, dt. 16-2-1978.
2 Ins, by Noti. No. 3417/XXXVI-3-1(F)-88 dt. 6.10.1999(w.e.f. 6.10.1999).
3 Subs.by Noti. No.90/XXXVI-3-2018-83(Sa)-17 dated march18,2018
4 Omitted by No. 90/XXXVI-3-2018(Sa)-17 dated March 13.2018
5 Subs.by Noti. No. 90/XXXVI-3-2018(Sa)-17 dated March 13.2018
6 Ins,by Noti.No.90/XXXVI-3-2018-83(Sa)-17 dated March 13,2018
7 Subs. by Noti. No. 2955(v)/XXXVI-3-2009(TD)-65, dt. 16.8.1976 (w.e.f. 16.8.1976).
8 Subs. By Noti.No.90/XXXVI-3-2018-83(Sa)-17 dated March 13,2018
9 Subs.by Noti.No 90/XXXVI-3-2018-83(Sa)-17 dated, March 13,2018
10 Added by Noti. No. 5331 (SM)/XXXVI-A-1231 (SM)-57, dt. 18.10.1958.
11 Subs.by Noti.No 90/XXXVI-3-2018-83(Sa)-17 dated March 13,2018
12 Added by Noti. No. 5202/(SM)4V/XXXVI-A-1204(SM)-61, dt. 27,4.1962.
13 Ins. by Noti. No. 3417/XXXVI-3-1(F)-88, dt. 6.10.1999 (w.e.f. 6.10.1999).
14 Subs By Noti. No 607(V)XXXVI-3-78-2048(F)-74, Dt. 16.2.1978.
15 Added by Noti No. 4194/XXXVI-3-2002(F)-80, Dt.25.11.1983.
16 Rule 14-E renumbered as rule 15-A by Noti. No. 3417/XXVI-3-1(F)-88,dt. 6.10.1999(w.e.f. 6.10.1999)
17 Subs. Vide Noti No. 6254(SM)(III)/ XXXVI-A-1250-(SM)-57, Dt. 19.2.1959.
18 Subs. By Noti. No 2617/XXXVI-3-2001(F)-82-CA-LXIII-1648-Rule-1950-A.M. (52)-1984, Dt 12.4.1984(w.e. f 12.4.1984).
19 Subs. By Noti. No. 2008/XXXVI-3-2016(F)-77-LA-63-1948-Rule-1950-AM (53)-1986, Dt. 7.8.1986(W.e.f. 7.8.1986)
20 Subs. By Noti. No. 2008/XXXVI-3-2016(F)-77-LA-63-1948-Rule-1950-AM (53)-1986, Dt. 7.8.1986(W.e.f. 7.8.1986)
21 Subs. by Noti. No. 607(V)/XXXVI-3-78-2095(F)-74, Dt. 16.2.1978.
22 Subs. by Noti. No. 2550/36-3-2000-22(9/99, dt. 5.9.2000 (w.e.f. 5.9.2000).
23 Subs vide Noti. No. 4368 (SM)/XXXVI-A-1130 (SM)-57, dt. 23.10.1958.
24 Ins. by Noti. No. 2046/XXXVI-3-8(F)-89, dt. 28.7.1995 (w.e.f. 28.7.1995).
25 Ins. by Noti. No. 607(V)/XXXVI-3-78-2045(F)-74, dt. 16.2.1978.
26 Ins. vide Noti. No. 395(LL)/ XXXVI-B-313(I)-53, Dt. 28.5.1955.
27 Subs by Noti. No 3551/XXXVI-3-1(F)-86, Dt. 6.2.1988(w.e. f 6.2.1988)
28 Subs. By Noti. No.2175/XXXVI-3-06-283(G.I)-2000, dt.4.9.2006, published in UP Gazette, Extra., Part 4, Section (Kha), dt. 4.9.2006(W.e. f 4.9.2006).
29 Deleted by Noti. No. 501/XXXVI-3-2(f)-85, dt. 14.5.1992.

30 Ins. By Noti. No. 501/XXXVI-3-2(f)-85, dt. 14.5.1992.
31 Ins. By Noti. No. 3417/XXXVI-3-1(F)-88, dt. 6.10.1999.
32 Ins. By Noti. No. 3417/XXXVI-3-1(F)-88, dt. 6.10.1999.
33 Subs. vide Noti. No. 4363(MS)/XXXVI-A—1130(SM)-57, dt. 23.10.1958.
34 Subs. vide Noti. No. 366(MS)/XXXVI-A—1130(SM)-57, dt. 23.9.1963.
35 Added vide Noti. No. 4363(SM)/XXXVI-A-1130(SM)-57, dt. 23.10.1958.
36 Added by Noti. No. 385(LD)/XXXVI-A-2027(SM)-62, dt. 17.7.1964.
37 Subs. By Noti. No. 2088/XXXVI-3-2016(F)-77-CA-63-1948-Rule-1950-AM (53)-1986, dt. 7.8.1986, published in the U.P. Gazette, Extra., Part 4, Section (kha), dt. 7.8.1986 (w.e.f. 7.8.1986.).
38 Deleted vide Noti. No. 21(SM)/XXXVI-A-1019(SM)-57, dt. 13.6.1958.
39 Ins.vide Noti. No. 416(LL)/XXXVI-(B)-155(L)-53, dt. 19.5.1954.
40 Added by Noti. No. 5212(SM)/XXXVI-A-1089(SM)-58, dt. 19.11.1960.
41 Subs. By Noti. No. 2080/XXXVI-3-03, dt. 25.8.2006, published in the U.P. Gazette, Extra., Part 4, Section (Kha), dt. 25.8.2006 (w.e.f. 25.8.2006.).
42 Subs. By Noti. No. 786/XXXVI-3-2014-854-13, dt. 26.05.2014, published in the Gazette, Extra., Part 4, Section (kha), dt. 26.05.2014 (w.e.f. 26.052014).
43 Ins. by Noti. No. 975 (SM)/XXXVI-A-1281(SM)-57, dt.9.2.1959.
44 Subs.by Noti. No. 21 (SM)/XXXVI-A-1019(SM)-57.
45 Subs. vide Noti. No. 21(SM)/XXXVI-A-1019(SM)_51.
46 Subs. by Noti. No. 1028/XXXVI-3-28(F)-94, dt.7.4.1997 (w.e.f.7.4.1997).
47 Subs. by Noti. No. 2088/XXXVI_3_2016(FF)-77-CA-63-1948-Rule-1950-AM (53)-1986.dt.7.8.1986.
48 Subs. by Noti. No. 6264(SM) (iii)/XXXVI-A-1250(SM)-57, dt.19.2.1959.
49 Added vide Noti.No,653 (M)/XXXVI_(B)-212(M)-1950, dt. 21.4.1956.
50 Subs. by Noti. No. 3607 (SM)/XXXVI-A-1172 (SM)-58, dt. 21.9.1961.
51 Subs. by Noti. No. 2253/XXXVI-3-06-965 (KA)-02, dt. 11.9.2006, Published in the U.P. Gazette, Extra (Khal), dt. 11.9.2006.
52 Subs. by Noti. No. 5475 (SM)/XXXVI-A-1250 (SM)-57, dt. 6.11.1958.
53 Ins. by Noti. 2068/XXXVI-3-2028 (F)-80-CA-63-1948-Rule-1950-AM-50-1982, dt. 25.11.1982, Published in the U.P. Gazette, Extra., dt. 25.11.1982 (w.e.f.25.11.1982).
54 Subs. by Noti. No. 501/XXXI-3-2(b)-85, dt. 14.5.1995.
55 Subs. by Noti. No. 839/XXXVI-3-28(F)-94, dt. 7.4.1995 (w.e.f. 7.4.1995).
56 Subs. by Noti. No. 839/XXXVI-3-28 (F)-94, dt. 7.4.1995 (w.e.f. 7.4.1995).
57 Subs. vide Noti. No. 4354 (SM)/XXXVI-A-1048(SM)-59, dt. 1.10.1959.
58 Schedules VIII, IX and X subs. by Noti. No. 501/XXXVI-3-2(F)-85, dt. 14.5.1992.
59 Added vide Noti. No. 2732(M) (ii)/XXXVI-(B)-59-(M)-54, dt. 5.3.1956.
60Added vide Noti. No. 5340(SM)/XXXVI-A---1002(SM)-52, dt. 26.2.1960.
61 Ins. by Noti. No. 2088/XXXVI-3-2016(F)-77-CA-63-1948-Rule-1950-AM (53)-1986, dt. 7.8.1986(w.e.f. 7.8.1986).
61Added vide Noti. No. 5340(SM)/XXXVI-A---1002(SM)-52, dt. 26.2.1960.
61 Ins. by Noti. No. 2088/XXXVI-3-2016(F)-77-CA-63-1948-Rule-1950-AM (53)-1986, dt. 7.8.1986(w.e.f. 7.8.1986).
62 Ins. by Noti. No. 2562/XXXVI-3-37(F)-84, dt. 30.8.1986 (w.e.f. 30.8.1986).
63 Schedules XV to XXVI, ins. by Noti. 501/XXXVI-3—2(6)-85, dt. 14.5.1995.
64 Ins. by Noti. No. 1028/XXXVI-3-28(F)-94, dt. 7.4.1997 (w.e.f. 7.4.1997).