

# TRIPURA GAZETTE



*Published by Authority*

## EXTRAORDINARY ISSUE

*Agartala, Tuesday, January 20, 2026 A. D., Pausa 30, 1947 S. E.*

**PART--I-- Orders and Notifications by the Government of Tripura,  
The High Court, Government Treasury etc.**

**GOVERNMENT OF TRIPURA  
LABOUR DEPARTMENT**

**No.F.97(50)-LAB/ENF/OSHWC/2025/**

**Dated, Agartala, 17th January, 2026.**

### NOTIFICATION

The following draft rules, which the State Government proposes to make in exercise of the powers conferred by Sections 133 and 135 of the Occupational Safety, Health and Working Conditions Code, 2020 (Act no. 37 of 2020) and in supersession of -

1. The Tripura Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Rules, 2001;
2. The Tripura Contract Labour (Regulation & Abolition) Rules, 1978;
3. The Tripura Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Rules, 1980;
4. The Tripura Plantation Labour Rules, 1954;
5. The Tripura Motor Transport Workers' Rules, 1962;
6. The Tripura Beedi and Cigar Workers (Conditions of Employment) Rules, 1968; and
7. The Tripura Factories Rules, 2007;
8. The Tripura Factories(Safety Officers) Rules, 1984;

made by the State Government in exercise of the powers conferred by the Building and Other Construction Workers (Regulation of Employment and Condition of Services) Act, 1996 (27 of 1996) , the Contract Labour (Regulation & Abolition) Act, 1970 (37 of 1970), the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 (30 of 1979), the Plantation Labour Act, 1951 (69 of 1951), the Motor Transport Workers Act, 1961 (27 of 1961), the Beedi and Cigar Workers (Conditions of Employment) Act 1966 (32 of 1966), the Factories Act 1948 (63 of 1948), which are repealed by Section 143 of the Occupational Safety, Health and Working Conditions, Code 2020 (37 of 2020) except as respects things done or omitted to be done before such supersession, are hereby notified, as required by Section 133, and Section 135, for information of all persons likely to be affected thereby and notice is hereby given that the draft notification will be taken into consideration after the expiry of a period of forty-five days from the date on which the copies of the Official Gazette, in which this notification is published are made available to the public;

Objections and suggestions, if any, may be addressed to the Secretary, Labour ([ctripura.agt@gmail.com](mailto:ctripura.agt@gmail.com) and [cifbtrp@yahoo.co.in](mailto:cifbtrp@yahoo.co.in)) which may be received from any person with respect to the said draft notification before expiry of the period specified above will be considered by the Government of Tripura.

### **CHAPTER – I PRELIMINARY DRAFT RULES**

#### **1. Short title, extent and commencement. -**

- (i) These rules may be called the 'Tripura Occupational Safety, Health and Working Conditions Rules, 2026'.
- (ii) They shall come into force on the date of their final publication in Tripura Gazette.

#### **2. Definitions:**

- (1) In these rules, unless the subject or context otherwise requires, -
  - (a) "Code" means the Occupational Safety, Health and Working Conditions Code, 2020;
  - (b) "Electronically" means any information submitted or uploaded on the State Government approved web portal or making digital payment through any mode for the purpose of the Code;
  - (c) "Form" means a form annexed to these rules;
  - (d) "Government" or "State Government" means the Government of Tripura;
  - (e) "Income from the sources" under Explanation to Clause[x] of sub-section (1) of section (2) means a

member of the family having such monthly income from all sources or any other income from all sources or any other income as may be notified from time to time by the State Government and shall not be included as dependent for the purpose of these rules;

- (f) "Licensing Authority" means authority appointed by the Government by notification under the sub-section (1) of Section 119;
- (g) "Member" means a member of the Board and includes its Chairperson;
- (h) "Registering Officer" means the registering officer appointed by the State Government for the purpose of these rules;
- (i) "Section" means the Section of the Code;
- (j) "Schedule" means a schedule annexed to these rules and Code;

(2)(a) "Substance or quantity of substance" under clause (zb) of the sub-section (2) of the Code means such hazardous or any chemicals which are described under Schedule 1, Schedule 2 and Schedule 3 of The Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 or any other substance which the State Government or Central Government may notify from time to time.

(b) All other words and expressions used herein in these rules and not defined shall have the meanings respectively assigned to them under the Code.

**(3) Income from the sources for the purposes of the explanation to clause (x) of sub-section (1) of section 2, from the sources shall mean:-**

A member of the family having income up to Rupees five thousand per month from all sources or any other income notified by the Employees State Insurance Corporation (ESIC) for the purpose of availing medical benefit under the scheme, shall be included as dependent for the purpose of these rules.

## **Chapter II Registration**

### **3. Application for registration under Section 3.-**

(1) No establishment as defined in the Code shall function without a valid certificate of registration.

(2) (i) The employer seeking registration for an establishment not already registered shall apply electronically on the Official Web Portal in **Form-I** to the Registering Officer appointed by the Government under sub-section (i) of section 3 of the Code, within sixty days from the date of such applicability of the Code along-with the fee fixed in clause (vi) of Rule 3 by giving details about the establishment, and uploading documents related to Registration of the establishment, proof of Identity and address of the employer(s) as specified in the **Form**. The **Form** shall be signed digitally or in any other manner as may be required on the portal. The applicant shall be responsible for veracity of all information submitted in the application.

(ii) The Permanent Account Number (PAN) of the applicant or the establishment allotted under Income Tax Act, 1961 or any other unique number allotted to the establishment under any other Act for the time being in force or any other particular furnished in the **form**, may be verified online.

(iii) The applicant shall pay the registration fee and the late fee (if applicable) along with application.

(iv) The certificate of registration shall be issued by the Registering Officer in **Form-II** electronically immediately if the application is complete in all respect **but not later than thirty days** from the date of submission of complete application, failing which such establishment shall be deemed to have been registered and the certificate of registration shall be autogenerated:

Provided that in exceptional circumstances the State Government may, for such period, by notification, dispense with requirement of electronic registration, in respect of establishment or class of establishment, for part or whole of State, and submission of application in the form so provided, may be allowed.

(v) The certificate of registration shall be non-transferable and a copy of the certificate of registration shall be displayed in the premises of the establishment at the conspicuous place in hard copy or electronically.

(vi) **The fee and the late fee under the proviso of Sub-section (1) of Section 3:** The amount of fee and late fee (late fee shall be fifty percent per annum of the registration fee) as prescribed shall be deposited along with the application for registration or amendment, electronically on the web portal

for the registration of establishments. Such fee shall be credited to the treasury in the head of account as may be specified by the State Government.

Fee for registration of the establishment shall be paid at the following rates –

| Sl. No. | Number of employees/workers proposed to be employed. | Fees applicable in Rupees |
|---------|--|---------------------------|
| a       | 10 but not exceeding 20                              | 1000/-                    |
| b       | 21 but not exceeding 50                              | 2000/-                    |
| c       | 51 but not exceeding 100                             | 3000/-                    |
| d       | 101 but not exceeding 200                            | 4000/-                    |
| e       | 201 but not exceeding 300                            | 5000/-                    |
| f       | 301 but not exceeding 400                            | 6000/-                    |
| g       | 401 but not exceeding 500                            | 7000/-                    |
| h       | 501 but not exceeding 1000                           | 8000/-                    |
| i       | 1001 and above                                       | 10000/-                   |

- (2) The registering officer under the Code may direct the employer who fails to comply with the requirements of sub-rule (1), to do so within the time stated therein and such employer shall, thereupon comply with the instruction issued by the officer in this behalf.

The employer in respect of an establishment already registered under any other State labour law for the time being in force shall, update the registration particulars on the Official Web Portal, within six months from the date on which the Code comes into force.

- (3) Any registration obtained by providing wrong information shall be liable to be cancelled provided that establishment has been given an opportunity to show cause, electronically or by registered post, as to why the certificate of registration should not be cancelled.
- (4) The employer shall quote the Registration Number on all documents prepared or completed by him in connection with the Code or the Rules or the Regulations or the Scheme, as the case may be, and in all correspondence with the office concerned.
- (5) Any change in the ownership, management or any particular furnished in Registration Form submitted on the specified portal shall be updated on the Portal by the employer within thirty days of such change.
- (6) The employer of an establishment to which the provisions of the Code apply and whose business activities are in process of closure, may apply for cancellation of registration online on the Official Web Portal after giving complete details of the dues payable under the Codes:

Provided that no such application for cancellation of registration shall be entertained unless the employer has furnished all statutory returns, paid all statutory dues under the Codes and any other labour law in force in accordance with the law applicable for the time being and submitted a self-certification to that effect along with the application.

- (7) The registering officer shall maintain a register of establishment electronically in Form-III showing the particulars of establishment in relation to which certificates of registration have been issued by him.
- (8) The employer shall, within thirty days of the commencement and completion of any work, intimate to the Inspector-cum-Facilitator, having jurisdiction in the area where the proposed establishment or as the case maybe, the work is to be executed, intimating the actual date of the commencement, completion of work and cessation of establishment, as the case may be, in Form-IV annexed to these rules electronically and the same shall be auto-shared to EPFO and ESIC.
- (9) If there is any increase in the number of employees to be employed in the establishment subsequent to its registration, then the differential amount of registration fee shall be payable by the employer concerned.

#### 4. Appeal under Section 4:

- (i) The employer aggrieved by the order of Registering Officer, may appeal against such order before the appellate officer for such purpose within thirty days from the date of receipt by him of such order, electronically.

(ii) Where the memorandum of appeal is in order, the appellate officer shall admit the appeal, acknowledge it and intimate admission of such appeal, and shall register the appeal in electronic form to be kept for the purpose called in the register of appeals.

(iii) When the appeal has been admitted, the Appellate Officer shall send the notice of the appeal to the registering officer, against whose order the appeal has been preferred and the registering officer shall there upon send the records of the case to the appellate officer electronically.

(iv) On receipt of the appeal, the appellate officer shall send a notice to the appellant to appear before him on such date and time as may be specified in the notice for the hearing of the appeal electronically or by registered post.

(v) If on the date fixed for hearing, the appellant does not appear, the appellate officer may dismiss the appeal for default of appearance of the appellants by sending the copy of the order to the applicant electronically.

(vi) Where an appeal has been dismissed, the appellant may apply electronically to the appellate officer for the restoration of the appeal within thirty days from the date of receipt of the order and if the appellate officer is satisfied that the appellant was prevented by sufficient cause from appearing, the appellate officer shall restore the appeal.

(vii) The order of the Appellate Officer shall be communicated electronically or by registered post to the appellant and copy thereof shall be sent to the registering officer against whose order the appeal has been preferred and shall be disposed of within a period of thirty days from the date of receipt of appeal.

**5. Notice of commencement and cessation of operation under Section 5.-**

The employer of every establishment being factory or mine or relating to contract labour or building or other construction works shall within thirty days of the commencement or cessation of operation, submit to the Registering Officer in Form-IV, electronically and the notice of cessation of operation shall be enclosed with a certificate that the payment of all dues to the workers employed in the establishment have been made and the premises are kept free from storage of hazardous chemicals and substances.

**Chapter-III**

**Duties of Employer and Employee**

**6. Annual Health Examination of employees under clause (c) of sub-section (1) of Section 6.-**

Every employer of Factory, Plantation, Motor transport, Beedi and Cigar and building or other construction work, Inter-state migrant workers or employer engaging contract labourers shall arrange to conduct free of cost, medical examination for every worker annually i.e. within 120 days from the commencement of every calendar year who has completed 45 years of age. The medical examination shall be conducted by a qualified medical practitioner as per proforma in Form-V. The Medical Certificate shall be submitted by the qualified medical practitioner to the concerned employer and employee.

**7. Letter of appointment to employee under clause (f) of sub-section (1) of Section 6.-**

No employee shall be employed in any establishment unless he has been issued a letter of appointment in Form-VI appended to these rules.

Provided that, an employee who has not been issued an appointment letter containing the required particulars, shall be issued an appointment letter within three months of coming into force of these rules.

**8. Notice of Accident and Dangerous occurrence under sub-section (1) of Section 10 & 11:**

(1) Where at any place in an establishment which is a factory, building & other construction site, Inter-state migrant workers or employer engaging contract labourers or any other establishment an accident occurs which results in the death of any person, the employer or occupier or manager of the establishment shall forthwith send a notice thereof by hand or electronically in Form-VII and inform by telephone to the Inspector-Cum-Facilitator, Chief Inspector-Cum-Facilitator and District Magistrate or Sub-Divisional Magistrate, Officer-in-charge of the nearest police station and to the family members/kin of the injured or deceased person.

(2) Where at any place in an establishment which is a factory, building & other construction site, Inter-state migrant workers or employer engaging contract labourers or any other establishment an accident occurs which results in bodily injury by reason of which the person injured is prevented from working for a period

of forty eight hours or more immediately following the accident, the employer or occupier or manager of the establishment shall send a notice in **Form-VII** within twelve hours after the completion of forty eight hours, electronically or by hand to the Inspector-Cum-Facilitator.

(3) Wherein an establishment there is any dangerous occurrence as specified in the schedule- Annexed hereto, whether causing any bodily injury or disability or not, a notice in **Form-VII** shall within twelve hours be sent to:

- a. The Chief Inspector-Cum-Facilitator;
- b. District Magistrate; or Sub-Divisional Magistrate;
- c. The Labour Officer having jurisdiction;
- d. The Inspector-Cum-Facilitator;

Provided that if in the case of an accident or dangerous occurrence, death occurs to any person injured by such accident or dangerous occurrence after the notices and reports referred to in the foregoing sub-rules have been sent, the employer or occupier or manager of the establishment shall forthwith send a notice thereof by telephone and electronically or otherwise to the authorities and persons mentioned in sub-rules (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 sub-rule (2) does not occur immediately following the accident, or the dangerous occurrence, but later, or occurs in more than one spell, the report referred to shall be sent to the Inspector-Cum-Facilitator in the prescribed form within 24 Hours following the hours when the actual total period of disability from working resulting from the accident or the dangerous occurrence becomes 48 hours as mentioned in **Schedule-H**.

(4) No injured person shall be allowed to return to work without a fitness certificate issued by a qualified medical petitioner.

(5) Whenever the person injured does not return to work in the establishment before the expiry of 21 days after the occurrence of the accident with or without disable men and whenever the person injured returns to work in the establishment after such training compensable disable men as a result of the accident, the employer of establishment shall send to the Inspector-Cum-Facilitator within 28 days of occurrence of the accident, a return report in prescribed **FORM-VII** and follow it up as necessary with further reports in the same **FORM-VII** once every fortnight thereafter, until final report on the date of return to work of the person injured is made. In the event of the person injured not returning to the work of own accord or otherwise the full circumstances of the same should also be reported to Inspector-Cum-Facilitator by the employer of the establishment within 7 days of his name being removed from master roll of the establishment.

#### **9. Notice of diseases under Sub-section (1) & (2) of Section 12:**

(1) A notice of disease in **Form-VIII** shall be sent forthwith electronically or through special messenger or through post, to the Inspector-Cum-Facilitator or Chief Inspector-Cum-Facilitator, by the employer of and establishment in which them occurs any disease as notified under the Third Schedule of the Code.

(2) If any qualified medical practitioner attends to a person who is or has been employed in an establishment and who is or is believed by the qualified medical practitioner to be suffering from any disease specified in the Third Schedule of the Code, the qualified medical practitioner shall send a report in writing within 48 hours to the office of the Chief Inspector-Cum-Facilitator & Inspector-Cum-Facilitator stating-

- (i) the name and full postal address of the patient,
- (ii) the disease from which he believes the patient to be suffering, and
- (iii) the name, address and registration number of the establishment in which the patient is or was last employed.

#### **10. Duties of employees under clause (d) and (g) of Section 13:**

If an employee comes to know of any unsafe or unhealthy condition in the establishment, he shall report to the employer or manager or health and safety representative or safety officer or agent as soon as practicable, electronically or in writing and telephonically.

#### **11. Rights of employee under sub-section (3) of Section 14:**

On receipts of information from the employee relating to the existence of an imminent danger to their safety and health, the employer shall take immediate remedial action in this regard. The employer whether satisfied or not, shall send a report forthwith of such actions taken, to the Inspector-Cum-Facilitator electronically or

by registered post or speed post.

**Chapter-IV**  
**Occupational Safety and Health**

**12. Constitution of Tripura State Occupational Safety and Health Advisory Board under Section 17(1) & (2):**

(1) The Tripura State Occupational, Safety and Health advisory Board shall consist of: -

|   |                     |
|---|---------------------|
| (a) Secretary Labour Department, Govt. of Tripura.....  | Chairperson         |
| (b) Chairman, Tripura Pollution Control Board.....  | Co-Chairperson      |
| (c) Chief Inspector-Cum-Facilitator, .....  | Member(ex-officio)  |
| (d) Labour Commissioner, Govt. of Tripura .....   | Member (ex-officio) |
| (e) Jt. Labour Commissioner, Govt. of Tripura .....   | Member Secretary    |
| (f) Regional Director, Employees State Insurance Corporation .....  | Member              |
| (g) Director, Health Services, Govt. of Tripura .....   | Member              |
| (h) Director, Information and Cultural Affairs, Govt. of Tripura .....  | Member              |
| (i) Additional Transport Commissioner, Govt. of Tripura.....  | Member              |
| (j) Director, Industries & Commerce, Govt. of Tripura.....  | Member              |
| (k) Engineer in Chief, PWD, Govt. of Tripura.....   | Member              |
| (l) Director, Fire Service, Govt. of Tripura.....   | Member              |
| (m) Five Representatives of Employer .....  | Members             |
| (n) Five Representatives of Employee .....  | Members             |
| (o) Board may co-opt any member seeking inputs from any specialist in specific matters or industry or sector which is predominant in the State..... | Member              |

(2) The Board may meet as often as necessary to discharge the functions as specified in Section 17 of the Code.

**13. Resignation: -**

- (i) A member of the Board, not being an ex-officio member, may resign from his office by a letter in writing addressed to the Chairperson of the Board.
- (ii) The seat of such a member shall fall vacant from the date on which his resignation is accepted by the Government of Tripura, or on the expiry of thirty days from the date of receipt of the letter of resignation by the Government of Tripura whichever is earlier.
- (iii) The Chairman shall place before the next board meeting, the receipt of resignation letter from a member and the decision taken thereon. If the resignation letter is rejected, the reason for rejection may also be reported to the Board.
- (iv) The Board shall inform the Government regarding the acceptance of resignation of a member.

**14. Cessation of membership: -** If any member of the Board, not being an ex-officio member, fails to attend three consecutive meetings of the Board, without obtaining the leave sanctioned by the Chairperson of such Board for such absence, he shall cease to be a member of the Board:

Provided that the State Government may, if satisfied that such member was prevented by sufficient cause from attending three consecutive meetings, direct that such cessation shall not take place and on such direction being made, such member shall continue to be a member of the Board.

**15. Disqualification for membership: -** A person shall be disqualified for being a member of the Board-

- (i) if he is of unsound mind and stands so declared by the competent authority;
- (ii) if he is an un-discharged insolvent; or
- (iii) if he has been convicted for an offence, having been sentenced with imprisonment of three months or more;

**16.(A) Removal from membership: -** The State Government may remove any member of the Board, if in its opinion such member has ceased to represent the interest which he purports to represent on such Board:

Provided that no such member shall be removed unless a reasonable opportunity is given to him of making a representation against the proposed action under this rule.

**(B) Filling up casual vacancies: -**

When vacancies arise in the Board due to resignation, death or removal of a member or otherwise, the Secretary shall inform the Government and the Government shall immediately appoint another person from the category concerned as a member and the member so appointed shall hold office for the remaining period of the term of office of the member in whose vacancy he is nominated.

**17. Allowance to the members of the Board: -**

(1) The members of the Board except the ex-officio members shall be eligible for sitting fee for attending the meeting at the rate decided by the Government from time to time.

(2) **Travelling Allowance for members:-(i)** The travelling allowance of an official member shall be governed by the rules applicable to him for journey performed by him on official duties and shall be paid by the authority paying his salary.

(ii) The non-official members of the Board shall be paid travelling allowance for attending the meeting of the Board at such places as per instructions issued by Finance Department, Government of Tripura from time to time. The amount so paid to the non-official members shall be debited from the official account of the Member Secretary of the Board.

**18. Disposal of the Business: -**

**(A) Board Meeting: -**

(1) The Board shall meet at least once in four months. The Member Secretary shall convene the meeting at such time, date and at such place as decided by the Chairperson.

(2) The Chairperson must convene meeting of the Board on the written requisition of not less than fifteen members jointly demanding to convene the Board meeting, within twenty days of receipt of such a requisition.

(3) The Chairperson shall have powers to call special meeting of the Board at any time to decide any matter which is urgent.

**(B) Notice of Meeting: -**

(1) The meeting of the Board shall be called by the member secretary with the prior approval of Chairperson. The Member Secretary shall give notice of the meeting at least fifteen days prior to the date of the proposed meeting, showing the date, time and place of the meeting together with the agenda, to every member directly or through special messenger or by registered post or electronically.

(2) Provided in case of any matter is of urgent importance, a notice of lesser period shall be deemed sufficient.

**(C) Change in the address: -**

(1) Each member shall inform the Member Secretary of any change in the address given in the order nominating him as a member and the Secretary shall make suitable alterations in the records.

(2) If the member fails to give the information as required under sub-rule (1), the notice under rule 18(C) shall be sent in the available address and even if such notice is not received due to any change in the address, it will be considered that the notice is duly served.

**(D) Presiding over of the Meeting: -**

(1) The Chairperson shall preside over every meeting of the Board.

(2) If the Chairperson is absent at any time, he may nominate a member of the Board to preside over such a meeting in his place and in the absence of such a nomination by the Chairperson, the members of the Board present in such meeting may elect one among them and the member so elected shall preside over that meeting.

(3) The member who presided over the meeting as per sub-rule 18(D)(2) shall have and exercise all the powers and rights of the Chairperson.

**(E) Quorum of the Meeting: -**

(1) No business shall be transacted at any meeting of the Board unless at least one third of the members existing at the time in the Board or nine members, whichever is less, are present of whom at least one each shall be from among those nominated under sub-rule (1) of rule 12.

(2) If there is no quorum for the meeting, the Chairperson may adjourn the meeting, to another date after the expiry of not less than seven days, informing the members present directly and giving notice to those who are absent. It shall thereupon be lawful for him to dispose of the business whether there is prescribed quorum or not, in the meeting so adjourned.

**(F) Agenda of the meeting and disposal of business: -**

- (1) Nothing other than the subjects shown in the agenda for the meeting shall be discussed or decided in the meeting, except with the permission of the Chairperson.
- (2) Every decision in the meeting of the Board shall be taken by a majority of the members present and voting at the meeting.
- (3) In the case of equal number of votes on any issue, the matter shall be decided by exercising a second vote or casting vote by the Chairperson.

**(G) Minutes of the Meeting: -**

- (1) Every decision taken at the meeting of the Board shall be recorded in a minutes book, which shall be a permanent record. The Member Secretary shall prepare the minutes of the meeting and the Chairperson and the Member Secretary shall affix their signatures on it.
- (2) The minutes signed by the Chairperson shall be read over to the members in the next meeting. Modifications, if any, made thereon shall be signed by the Chairperson and the Member Secretary after such modification and confirmation on it.

**19. Constitution of Technical Committees or Advisory Committees under sub-section (3) of section 17:-**

The State Government shall constitute Technical Committees or Advisory Committees under the chairmanship of Joint Labour Commissioner by publishing notifications for the period of five years to advise the State Advisory Board for the respective area or jurisdiction.

**20. Safety Committee under Section 22.-**

- (1) Every establishment employing 250 or more workers except for the establishment prescribed under sub-section (1) of section-22 shall constitute a safety committee consisting of representatives of employers and workers.
- (2) The tenure of the safety committee shall be for three years. The safety committee shall meet at least once in every quarter. In case of mines, the safety committee shall need to meet at least once in a month.
- (3) The representative of the workers shall be chosen by the registered trade Union. In case where there is no registered trade Union the members may be chosen by the workers of the establishment.  
Provided that there shall be adequate representation of the women workers in the committee.
- (4) Safety Committee shall have the right to be adequately and suitably informed of-
  - (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 employees, conducted at such establishments.
- (5) The owner, employer, occupier, agent or manager shall, within a period of 15 days from the date of receipt of the recommendations of the Safety Committee shall take action to implement the recommendations.

**21. Composition of Safety Committee: -**

- (a) The representative of the management on Safety Committee, except in mine shall consist of-
  - (i) A senior official, who by his position in the organization can contribute effectively to the functioning of the Committee, shall be the Chairman;
  - (ii) A Safety Officer and Medical Officer wherever available and the Safety Officer in such a case shall be the Secretary of the Committee; and
  - (iii) A representative each from the production, maintenance and purchase departments.
- (b) The workers' representatives on the Safety Committee referred to in sub-clause (i) shall be chosen by the workers.
- (c) The minutes of the meeting of the Safety Committee referred to in sub-clause (i) shall be recorded.
- (d) Safety Committee shall have the right to be adequately and suitably informed of-
  - (i) Potential safety and health hazards to which the workers may be exposed at workplace;
  - (ii) Data on accidents as well as data resulting from surveillance of the working environment and of the health of workers exposed to hazardous substances.
- (e) Function and duties of the Safety Committee referred to in sub-clause (i) shall include-
  - (i) Assisting and co-operating with the management in achieving the aims and objectives outlined in the Safety and Health Policy;
  - (ii) Dealing with all matters concerning health, safety and environment and to arrive at practicable solutions to problems encountered;
  - (iii) Creating safety awareness amongst all workers;

- (iv) Undertaking educational, training and promotional activities;
- (v) Discussing reports on safety, environmental and occupational health surveys, safety audits, risk assessment, emergency and disaster management plans and implementation of the recommendations made in the reports;
- (vi) Looking into the matters likely to cause danger to the safety and health of the workers and suggest corrective measures; and
- (vii) Reviewing the implementation of the recommendations made by it.

**22. Composition of Safety Committee in case of mines: -**

- (a) the manager referred to in section 67 of the Code shall be the Chairman;
- (b) five officials or competent persons of the mine nominated by the Chairman;
- (c) five workers, including proportionate number of contractor's employee, engaged in mining operation, nominated by employees of the mine.
- (d) worker's representative where so designated, one each from mining, electrical and mechanical discipline;
- (e) the safety officer, or where there is no safety officer, the senior most mine official next to the manager, who shall act as Secretary to the Committee; and
- (f) qualified medical practitioner of the mine.

**23. The Functions of Safety Committee: -**

The Function of the Committee shall be-

- (a) to discuss remedial measures against the unsafe conditions and practices in the mine as pointed out in the reports of worker's representative brought to the notice of the Committee and make appropriate recommendations;
- (b) to consider, before commencement of operation in any, new area of the mine or installation of oil mine or commissioning of new electrical or mechanical installation or introduction of new mining technique, the proposed Safety and health measures including related codes of practice and to make appropriate recommendations
- (c) to discuss the report of inquiry into accident, dangerous occurrences etc., and make appropriate recommendations;
- (d) to formulate and implement appropriate Safety campaign based on analysis of accidents and dangerous occurrences;
- (e) to serve as a forum for communication on Safety and occupational health matters; and
- (f) to discuss the standard operating procedures (SOP) prepared for different plant, equipment, installations and methods at the mine and make appropriate recommendations.

**24. Recommendations of the Safety Committee: -**The Safety committee will make necessary recommendations:

- (i) To assist the manager in any other matter relating to safety in mine
- (ii) The safety officer shall ensure that an appropriate emergency plan as required under these regulations is put in place and the requirements of the same are implemented.
- (iii) Except in an emergency, no duties other than these specified above shall be assigned to the Safety Officer.
- (iv) The safety officer shall maintain in a bound paged book a detailed record of the work performed by him.

**25. Safety Officer for Factories, Dock Works and Building or Other Construction Works: -**

- (a) A person shall not be eligible for appointment as a safety officer relating to dock work or building or other construction work unless he possesses-
  - (i) a recognized degree in any branch of engineering or technology and has had practical experience in a supervisory capacity for a period of not less than 2 years, or
  - (ii) a recognized degree in physics or chemistry and has had practical experience in a supervisory capacity for a period of not less than 5 years; or
  - (iii) a recognized diploma in any branch of engineering or technology and has had practical experience in a supervisory capacity for a period of not less than 5 years;
  - (iv) possesses a degree or diploma in industrial safety recognized by the State Government in this behalf; and
  - (v) has adequate knowledge of Bengali & Kokborok language;

Provided that the employer shall ensure that the safety officer appointed shall acquire adequate knowledge of the language spoken by majority of workers within one year from the date of such

appointment.

(b) Notwithstanding anything contained in sub-rule (1), any person who-

(i) Possesses a recognized degree or diploma in engineering or technology and has had experience of not less than 5 years in a department of the Central or State Government which deals with the administration of the Factories, Building or Other Construction works and Dock works or;

(ii) Possesses a recognized degree or diploma in engineering or technology and has had experience of not less than 5 years, full time, on training, education, consultancy, or research in the field of accident prevention in industry or in any institution; shall also be eligible for appointment as a safety officers:

**26. Duties of Safety Officers in case of Factories, Dock works and Building or Other Construction works: -**

The duties of a Safety Officer shall be to advise and assist in the fulfillment of its obligations, statutory, concerning prevention of personal injuries and maintaining a safe working environment and such duties shall include the following, namely-

(a) to advise the concerned departments in planning and Organizing measures necessary for the effective control of personal injuries;

(b) to advice on safety aspects in all jobs studies, and to carry out detailed job safety studies of selected jobs;

(c) to check and evaluate the effectiveness of the action taken or proposed to be taken to prevent personal injuries;

(d) to provide an advice on matters related to carrying out plant and machinery safety inspections;

(e) to carry out plant safety inspections in order to observe the physical conditions of work and the work practices and procedures followed by workers and to render advice on measures to be adopted for removing the unsafe physical conditions and preventing unsafe actions by workers;

(f) to render advice on matters related to reporting a investigation of industrial accident and diseases;

(g) to investigate selected accidents;

(h) investigate the cases of modifiable diseases listed in the Third Schedule to the Code;

(i) to organize in association with the concerned departments, campaigns, competition, contests and other activities which will develop and maintain the interest of the workers in establishing and maintaining safe conditions of work and procedure; and

(j) to design and conduct either independently or in collaboration with the training department, suitable training and educational programme for the prevention of personal injuries.

**27. Safety officer in case of mines: -** At every mine, wherein 100 or more persons are ordinarily employed, Safety Officer(s) shall be appointed on a scale of one up to a total manpower of 500 and additional one for every additional 500 man power or part thereof, who shall hold following qualifications namely: -

**(a) In case of coal mine: -**

(i) For below ground Mines, Person holding First Class Manager's Certificate of Competency (Coal), granted by Directorate General of Mines Safety;

(ii) For Opencast Mines, Person holding First Class Manager's Certificate of Competency (Coal) or First-Class Manager's Certificate of Competency (coal) restricted to mines having open cast workings only, granted by Directorate General of Mines Safety.

**(b) In case of Metalliferous Mines**

(i) For below ground Mines, person holding Manager's Certificate of Competency (Metal), granted by Directorate General of Mines Safety,

(ii) For Open cast Mines, person holding Manager's Certificate of Competency (Metal) or Manager's Certificate of Competency (Metal) restricted to mines having opencast workings only, granted by Directorate General of Mines Safety.

**(c) For oil mines,** a degree in engineering or in industrial safety of an educational institution recognised by the State Government or post-graduate diploma in industrial safety from State Labour Institute or Regional Labour Institutes and having experience in the management or supervision of operations in oil mines for a period of not less than five years.

**28. Duties of safety officer in case of mines:** The duties of the safety officer in case of mines shall be-

(a) To visit surface, above ground, underground parts of mine, installations of oil mine, with a view to meet the employees on the spot, to talk to them on matters of safety and invite suggestions thereon;

(b) To take charge of the newly recruited staff and show them around the mine pointing out the safe and

unsafe acts during the course of their work in the mine;

(c) To investigate all types of accidents and incidents in the mine including minor accidents and analyze the same with a view to pin point the nature and common causes of accidents in the mine;

(d) To maintain detailed statistics about mine accidents and to analyze the same with a view to pin point the nature and common causes of the accidents in the mine;

(e) To study and apprise the manager referred to in section- 67 of the Code, of all possible sources of danger such as inundation, fire, coal dust, blow out in oil mines and others;

(f) To hold safety classes and give safety talks and lectures to the members of the supervisory staff;

(g) To organize safety weeks and other safety education and propaganda programme in mine;

(h) To see that all concerned mine employees are fully conversant with various standing orders, codes of practices, support plan, etc.

(i) To provide assistance in the formulation of programme for training at the mine level, including vocational training, training in gas testing, firefighting and first-aid, etc.

(j) To report to the manager referred to in section 67 of the Code as a result of his visits to the various parts of mine, as to whether the provisions of the code, and the rules and regulations made there under are being complied with in the mine;

(k) To promote safe practices generally and to lend active support to all measures intended for furthering the cause of safety in the mine and follow up measures for compliance.

#### **Chapter-V**

#### **Hours of Work and Annual Leave with Wages**

##### **29. Weekly day of rest under sub-section (2) of Section 26.**

(1) For the purpose of section 26, there shall be posted up in a conspicuous place outside the office at or near the entrance or published in the website of every establishment a notice in English, Bengali, Kokborok and the language understood by majority of the workers showing the weekly day of rest. Where the weekly day of rest is not the same day for all persons employed in the establishment, the notice shall show the day of rest allowed to each relay, or set of persons or individual.

(2) No adult worker shall be required or allowed to work in an establishment on the weekly day of rest (hereinafter referred to as the said day), unless:

i. he has or will have a holiday for a whole day on one of the three days immediately before or after the said day; and

ii. the employer of the establishment has, before the said day or the substitute day under clause (i), whichever is earlier;

(a) delivered a notice at the office of the Inspector-cum-Facilitator of his intention to require the worker to work on the said day and of the day which is to be substituted; and

(b) displayed a notice to that effect in the establishment.

Provided that no substitution shall be made which will result in any work working for more than ten days consecutively without a holiday for a whole day.

(3) Notice given under sub-rule (2) may be cancelled by a notice delivered at the office of the Inspector-cum-Facilitator and a notice displayed in the establishment or published in the website of establishment not later than the day before the said day or the holiday to be cancelled, whichever is earlier.

(4) Where, in accordance with the sub-rule (2), any worker works on the said day and has had a holiday on one of the three days immediately before it, the said day shall, for the purpose of calculating his weekly hours of work, be included in the preceding week.

##### **30. Compensatory holidays:**

(1) Except in the case of worker ined many works which for technical reason be carried on continuously throughout the day, the compensatory holidays to be allowed under sub-section of section 20 of the Code shall be so spaced that not more than two compensatory holidays are given in one week.

(2) The manager of the establishment, shall display, on or before the end of the month in which holidays are lost, a notice in respect of workers allowed compensatory holidays during the following month and of the dates there at the place at which the notice of periods of works prescribed under section 26 is displayed. Any subsequent change in the notice in respect of any compensatory holiday shall be made not less than three days in advance of the date of that holiday.

(3) 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.

**31. Extra Wages for overtime under Section 27-**

(1) A worker shall be required to work overtime by the employer subject to the consent of such worker for such work.

(2) In pursuance of Section 27 of Code, where in an establishment a worker works for more than eight hours in any day or for more than forty-eight hours in any week, as the case may be, he shall in respect of such overtime work be entitled to wages at the rate of twice his ordinary rate of wages and shall be paid at the end of each wage period.

(3) In calculating overtime on any day, a fraction of an hour between 15 to 30 minutes shall be counted as 30 minutes and in case of more than 30 minutes it shall be counted as an hour on actual basis.

(4) In calculating the wages or earnings in the case of a worker paid by the month, the daily wages shall be 1/26th of his monthly wages; and in the case of any other worker, it shall be the daily wages or earnings as the case may be.

(5) No worker shall be allowed to work overtime for more than seven days at a stretch and the total number of hours of overtime work in any quarter shall not exceed one hundred and forty-four hours.

(6) the spread over for the workers shall exceed twelve hours in any one day under the following works and circumstances in factories, dock works, mines and building or other construction, namely:

(a) urgent repairs;

(b) work in the nature of preparatory or complimentary work;

(c) work which is necessarily so intermitted that the intervals during which they do not work while on duty ordinarily amount to more than the intervals for rest;

(d) work which for technical reasons must be carried on continuously;

(e) engaged in making or supplying articles of prime necessity which must be made or supplied every day;

(f) engaged in a process which cannot be carried on except during fixed seasons;

(g) engaged in a process which cannot be carried on except at times dependent on the irregular action of natural forces;

(h) engaged in an engine-rooms or boiler-houses or in attending to power plant or transmission machinery;

(i) engaged in process on account of the break-down of machinery;

(j) engaged in the loading or unloading of railway waggons or lorries or trucks;

(k) exceptional press of work and

(l) engaged in any work, which is notified by the State Government in the Official Gazette as a work of state importance;

Provided that no worker shall be allowed to work overtime exceeding one hundred twenty-five hours in any quarter of a year.

**32. Circumstances for exemption from restriction on double employment in factory and mine under section 30: -**

An adult worker may be employed in more than one factory on the same day with the previous approval of the Inspector-cum-Facilitator subject to the following conditions

(a) He/she shall not be employed for more than a total of 8 hours on a single day.

(b) He/she shall receive a weekly holiday in accordance with provisions of section 25.

(c) Every worker who is required to work in another factory on the same day shall carry with him a card in which the following particulars shall be entered by the employer of the first factory

(i) His normal periods of work as in the notice of periods of work for the day;

(ii) The period or periods he has worked in the first factory for the day.

The employer of the second factory in which he is to work for the rest of the day shall enter in the card the period or periods he has worked for the day in the factory. The employer of both the factories in which the worker has worked for the day shall send to the Inspector-cum-Facilitator an extract of the card mentioned above not later than 3 days from the date on which the worker has worked in the two factories on the same

day

AND

The State Government shall published notifications for certain establishments during certain circumstances prohibiting the provision of double employment considering the nature of certain circumstances arising at any time.

**Chapter- VI**  
**Maintenance of Registers, Records and Returns.**

**33. Notice of periods of work under sub-section (2) of Section 31.-**

The notice referred to in sub-section (2) of section 31 shall be displayed at conspicuous places on a notice board or electronic board and maintained in **Form-IX** and copy of such notice shall be sent to Inspector-cum-Facilitator electronically or by registered post

**34. Maintenance and production of reports, registers and other records under Section 33-**

Every employer shall-

(a) Maintain register of workers, wages, overtime, fine, deduction for damage or loss in **Form-X** electronically and shall be kept available at an office or the nearest convenient building within the precincts of the establishment;

(b) in case of manual registers and other records, be legibly entered in ink in English and Hindi or the language understood by a majority of the persons employed;

(c) be preserved in original for a period of one calendar year after the date of the last report or entry;

Provided that when the original record is lost or destroyed before the expiry of one year period, true copies thereof, if available, shall be preserved for the prescribed period;

(d) be produced, electronically or by registered post, on demand before the Chief Inspector-cum-facilitator or Inspector-cum-Facilitator or any person authorized in that behalf of the State Government.

**35. Register of accident and dangerous occurrences: -** The registers of accident and dangerous occurrences required by sub-clause (v) of clause (a) of section 33 of the Code shall be maintained in a **Form-XII** appended.

**36. Register of leave with wages under clause (a) of section 33.-**

(a) The owner, agent or manager of every establishment shall maintain in respect of every employee thereof a record of leave with wages electronically or manually in **Form-XIII**.

(b) The register mentioned in sub- rule (1) shall be preserved for a period of two years after the last entry in them has been made and shall not be destroyed even after the expiry of that period unless it has been properly transferred to the new register.

**37. Display of notice board under clause (b) of section 33: -** Every employer shall cause to display at the conspicuous place of the workplace of the establishment under his control, notice showing the name and address of the establishment, hours of work, wage period, date of payment of such wages, details of accident and dangerous occurrence in the establishment for the last five years, name and address of the Inspector-cum-Facilitator having jurisdiction to such establishment and date of payment to such workers in English, Hindi and in the Local Language understood by the majority of the workers.

**38. Return under clause (d) of section 33-** Every employer of an establishment shall send annually a return relating to such establishment in **Form-XI**, manually or electronically to the Inspector-cum-Facilitator having jurisdiction so as to reach him not later than 1<sup>st</sup> February following the end of each calendar year with a copy to Director General, Labour Bureau electronically.

**Chapter-VII**  
**Inspector-cum-Facilitator and Other Authority**

**39. Qualification of Chief Inspector-cum-Facilitator under sub-section (5) of section 34-** The qualification and experience of Chief Inspector-Cum-Facilitator shall not be less than that of Labour Commissioner of Tripura or Chief Inspector of Factories and Boilers.

**40. Power to take samples of any articles or substances under clause (x) of sub-section (1) of section 35.-**

(1) An Inspector-cum-Facilitator shall take samples or substances in an establishment as per of the State

**Government** after informing the employer of the establishment, taken in the manner here in after provided a sufficient sample of any substance used or intended to be used in the establishment, such use being—

(a) in the belief of the Inspector-cum-Facilitator an contravention of any of the provisions of this code or the rules made thereunder, or

(b) in the opinion of the Inspector-cum-Facilitator likely to cause bodily injury to, or injury to the health of employee in the establishment.

(2) Where the Inspector-cum-Facilitator takes a sample under sub-rule (1), he shall, in the presence of the person informed under that sub-section unless such person willfully absents himself, divide the sample into three portions and effectively seal and suitably mark them, and shall permit such person to add his own seal and mark thereto.

(3) The person informed as aforesaid shall, if the Inspector-cum-facilitator so requires, provide the appliance for dividing, sealing and marking the sample taken under this section.

(4) The Inspector-cum-Facilitator shall—

(a) Forthwith give one portion of the sample to the person informed under sub-rule (1);

(b) Forthwith send the second portion to a Government Analyst or State Accreditation Board for Testing and Calibration Laboratories (NABL) for analysis and report thereon;

(c) Retain the third portion for production to the Court before which proceedings, if any, are instituted in respect of the substance.

(5) Any document purporting to be a report under the hand of any Government Analyst or NABL accredited laboratory upon any substance submitted to him for analysis and report under this section, may be used as evidence in any proceeding instituted in respect of the substance.

**41. Powers and duties of Inspector-cum-Facilitator under clause (xiv) of sub-section (1) of Section 35.-**

(1) Inspector-cum-Facilitator shall, after every inspection, as may be deemed necessary, issue prohibition or improvement notice in the Form-XIV pointing out the non-compliance of provisions of safety, health and working conditions under the Code, and rules and regulations framed thereunder, to the employer or occupier or owner or master or officer-in-charge or their agent.

(2) An Inspector-cum-Facilitator shall, at each inspection, ascertain to what extent any shortcomings notified at a previous inspection have been rectified and the notices previously issued have been complied with. His findings and any shortcomings which may come to light during inspection, together with any order passed by him under the Code or the regulations made thereunder shall be recorded and maintained.

In Case of subsequent non-compliance of the order passed by the Inspector-cum-Facilitator under sub-section (1) of section 35 or any provisions of the Code, the Inspector-cum-Facilitator shall file a complaint with the appropriate authority as provided under section 102, 103 and 104 of the Code as applicable.

(3) The Inspector-cum-Facilitator may take photograph of any worker, to inspect, examine, measure, copy, photograph, sketch or test as the case may be any building or room, any plant, machinery, appliance or apparatus, any register or documents, or anything provided for the purpose of securing the health, safety or welfare of the employees employed in establishment

(4) In the case of an Inspector-cum-Facilitator who is a duly qualified medical practitioner to carry out such medical examinations as may be necessary for the purpose of his/her duties under the Code.

(5) To prosecute, conduct or defend before a Court any complaint or other proceedings arising under the Code or in discharge of his duties as an Inspector-cum-Facilitator.

**42. Academic Qualification and Experience of empaneled experts for third party safety audits, Section-37-**

(1) **Technical auditor: -**

(a) degree in branch of Chemical, Mechanical, Electrical or Production Engineering from recognized institution and having ten years of experience in manufacturing, maintenance, design, project or safety department in the supervisory or above capacity in factories; or

(b) diploma in branch of Chemical, Mechanical, Electrical or Production Engineering and diploma in industrial safety from recognized institution and having fifteen years' of experience in manufacturing, maintenance, design, project or safety department in the supervisory or above capacity in factories; or degree of Bachelor of Science with Physic and/or Chemistry and diploma in industrial safety from recognized institution and having fifteen years' of experience in manufacturing or maintenance or safety Department of

any establishment in the supervisory or above capacity in factories, and one year full time Diploma in Industrial Safety recognized by the Board of Technical Education or All India Council of Technical Education or recognized University, or Central or Regional Labour Institutes

(c) Degree or Diploma in any branch of Engineering and having fifteen years of experience in Factory Inspectorate or Directorate of Industrial Safety and Health or fifteen years of experience in the DGFASLI or Central Labour Institute or Regional Labour Institutes of DGFASLI.

(2) Safety Medical Officer shall have postgraduate degree in general medicine or MBBS with special course/training/Diploma to qualify as factory Medical Officer.

**43. Alternate employment when employment is affected by order of facilitator-cum-inspector under sub-clause (d) of clause (A) of sub-section (1) of section 38: -**

The occupier of the factory may take necessary steps for providing employment to the workers affected by the order of prohibition issued by Inspector-cum-facilitator sub-clause (d) of clause (A) of sub-section (1) of section 38 of the code and as far as practicable provide alternate employment to the workers so affected. Where it may not be possible for the occupier to provide such employment, he/she shall be responsible for making payment of salary/wages to the affected workers during the period for which the prohibition order is in operation.

**44. Appointment of Medical officer under sub-section (1) of Section 42.-** The Medical Officer shall be a medical practitioner who possesses any recognised medical qualification as defined in the State Medical Commission Act, 2019 (30 of 2019) and who is enrolled on a Indian Medical Register as defined in clause (e) and on a State Medical Register as defined in clause (1) of section 35, 36, 37 and 40 of the Act.

**45. Other establishment engaged in the dangerous occupation or process 42(2)(a): -**

On receipt of a reference under clause (a) sub-section (2) of section 42 of the code, the following shall be the dangerous occupations or processes for the purpose of medical examination and certification, namely

- (i) operations declared dangerous under section 82 of the Code
- (ii) factories carrying hazardous process as per Schedule I of the Code
- (iii) treatment of Biomedical waste
- (iv) sewerage treatment
- (v) solid waste management
- (vi) Marble cutting
- (vii) Ready mix concrete
- (viii) Hot mix concrete
- (ix) Working at height
- (x) Operating of crane or heavy-duty machinery; or
- (xi) Such other occupation or process as may be notified by the State Government for time to time to be dangerous

**46. Medical supervision and other establishments 42(2)(b):**

On receipt of a reference under clause (b) sub-section (2) of section 42 of the code.

(i) The Medical Officer shall perform the examination and certification of the workers in a factory or in other such establishments engaged in dangerous occupation and processes specified in **Schedule-VI** or these Rules;

(ii) The Medical Officer shall perform the examination and certification of workers in a factory or such establishments where cases of illness have occurred where it is reasonable to believe are due to the nature of any process carried on or other conditions of work prevailing in such establishments and inform the occupier, owner, Chief Inspector-cum-Facilitator and the State Government for study and remedial measures as may be required in this behalf.

(iii) The Medical Officer shall perform the examination and certification of and adolescent worker for the purpose of ascertaining his fitness of employment in a factory, motor transport undertaking or in any other establishment under Code.

(iv) On the receipt of a reference under clause (c) of sub-section (2) of section 42 of the Code, the Medical Officer shall, after giving prior notice regarding date, time and place for medical examination shall records the result of his examination in the Health Register in **Form-XXIII**.

**47. Other establishment 42(2)(c): -**

(1) On receipt of a reference under clause (c) subsection (2) of section 42 of the code, the Medical Officer

shall, after giving prior notice regarding date, time and place for medical examination and upon examining the person sent for such examination, prepare the age and fitness certificate and deliver the same to the manager of the establishment concerned after retaining a copy thereof.

(2) The medical officer may seek opinion of specialists like radiologist, dentist and orthopaedic surgeon as the case may be, for the purpose of determination of age.

(3) Medical Officer shall carryout such examination and furnish such report as State Government may direct:

(a) For examination and certification of workers in an establishment in such dangerous occupation or processes as specified in First Schedule to the Code;

(b) for medical supervision of any establishment or class of establishment where cases of chronic occupational illness have occurred due to arduous nature of any process carried on or hazardous condition of work;

(c) in respect of any establishment or class of establishment or description of establishment in which operations involve any risk of injury to the health of any person or class of persons employed therein;

(d) to undertake occupational health survey for any or class of an establishment, where cases of illness have occurred or there is prevalence of diseases as prescribed in Third Schedule of the code.

(e) To assess the age and issue fitness of adolescent for employment in an establishment or class of establishment.

#### Chapter-VIII

#### Special Provisions relating to Employment of Women

##### 48. Employment of Women in establishment under Section 43-

The following conditions shall be met for employment of women during night or before 6 a.m. and beyond 7 p.m. in any day, namely: -

(a) The written consent of women employ shall be taken in Form-XV annexed with these Rules;

(b) No women shall be employed against the maternity benefit provisions laid down under the Social Security Code, 2020 (36 of 2020).

(c) adequate transportation facilities shall be provided to women employee to pick up and drop such employee at her residence;

(d) the workplace including passage towards conveniences or facilities concerning toilet, washrooms, drinking water, entry and exit of women employee should be well-lit;

(e) the toilet, washroom and drinking facilities should be near the workplace where such women employees are employed; and

(f) Provide safe, secure, hygienic, eco-friendly and healthy working condition in the workplace and women's toilets such that no women employee is disadvantaged in connection with her employment.

(g) In case of belowground mine not less than 3 women employees shall be employed at any place.

(h) The provisions of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (14 of 2013), as applicable to the establishments, shall be complied with.

(i) The employer shall make sure that the women workers are employed in a batch not less than five and the total of the women workers employed in a night shift shall not be less than two;

(j) Sufficient women security shall be provided during the night shift at the entry as well as exit points;

(k) Separate dormitory accommodation shall be provided for women workers after the working hours in night shift, if required.

(l) Mess room shall be provided for the female employees;

(m) The employer shall provide appropriate medical facilities and also make available at any time of urgency on call where more than hundred women workers are employed in a shift, a separate vehicle shall be kept ready to meet the emergency situation such as hospitalization, whenever there is a case of injury or incidental acts of harassment;

(n) During night shift not less than 1/3<sup>rd</sup> of strength of the supervisors or shift-in-charge or foreman or other supervisory staff shall be women wherever applicable;

(o) The women workers who work in night shifts and regular shifts shall have a monthly meeting through their representatives with the employer once in eight weeks as grievance day and the employer shall try to comply with all just and reasonable grievances; and

(p) The Inspector-cum-Facilitator shall strictly enforce the conditions and make it a point to take note of the

non-compliance in their inspection from time to time.

(q) Women shall be entitled to be employed in all establishments/factories for all types of work with their consent before 6 a.m. and beyond 7 p.m. subject to such conditions relating to safety or any other condition to be observed by the occupier.

**49. Adequate Safety of employment of women in dangerous operations under Section 44.** (1) Notwithstanding anything contained in any rule made under the Code, every woman employed in the manufacturing process wherein dust, fumes or other impurity is given off, shall be provided with suitable respirator, nose mask etc.

(2) No woman worker shall be engaged to work near the machinery in motion without wearing head cap, apron and suitable overcoat so as to avoid the risk of any kind of injury from any moving part.

(3) Notwithstanding the provisions under clause (iv) of sub-section (1) of Section 24, suitable arrangements for sitting shall be provided and maintained separately for all women obliged to work in the standing position, in order that they may take advantage of any opportunities for rest which may occur in the course of their work.

(4) As far as practicable woman worker shall not be engaged in any workplace involving poor ergonomics detrimental to the safety and health.

(5) The employer carrying on hazardous process and dangerous operations shall disseminate the information to every woman in relation to danger, physical and health hazards arising from the exposure, handling, transportation, storage and other process involved therein and such information shall be in the local language(s) understood by every woman.

And, the State Government may declare by notification the class of establishments and the scheme, and standards for safeguarding of women in hazardous and dangerous processes, if required in consonance with the standards set by the Central Government.

#### Chapter-IX

#### Special Provisions for Contract Labour and Inter State Migrant Workmen

##### Part-I

##### Contract Labour

#### **50. Conditions of Licence under sub-section (3) of section 47.-**

The contractor shall ensure that:

(a) The hours of work shall conform to the rules made under Section 25 of the Occupational Safety, Health and Working Conditions Code, 2020 (37 of 2020).

(b) The wages shall be paid in accordance with the Code on Wages, 2019 (29 of 2020).

(c) If the contract worker of the contract or is working at the premises of the principal employer then it shall be the responsibility of the principal employer to provide the facilities or amenities such as toilet, washroom, drinking water, bathing facilities if required, changing room, first aid box, Canteen and Crèche and

(d) All other facilities and entitlements shall be provided by the contractor.

(e) In case the contractor fails to make payment of minimum wages to the contract worker, then the Labour Commissioner or his representative, who shall cause such payment to be made to the contract workers who have not been paid out of the security deposit maintained under rule 80 including by invoking the bank guarantee as security deposit.

#### **51. Form and manner of application for contractor licence under of sub-section (1) of Section 48.-**

(1) **Single Licence for Contractor in more than one establishment within the State:-** (1) If a contractor desirous of obtaining licence for: (i) The contractor supplying or engaging contract labour or (ii) undertaking or executing the contract works under sub-section (1) or sub-section (2) of section 47 located in different locations in the State, shall apply electronically on the Online Portal in **Form-I** to the licensing authority as notified by the State Government under sub-section (1) of section 119 of the Code alongwith the licence fees of each establishment involved therein.

(2) Every licence granted shall be in **Form- XVI** appended.

(3) Every licence granted or renewed is subject to the following conditions, namely:

(i) the licence shall be non-transferable and the licence issued under sub-section (1) of section 47 shall be valid for a period of five years.

(ii) the number of workers employed as contract labour by the contractor shall not, on any day, exceed the maximum number specified in the licence.

(iii) save as provided in these rules, the fees paid for the grant, or as the case may be, for renewal of

the license shall be non-refundable.

(iv) the rates of wages payable to the workers by the contractor shall not less than the rate prescribed under the Code on Wages, 2019 and where the rates have been fixed by agreement, settlement or award, not less than the rates so fixed.

(4) Every application referred to in sub-rule (1), shall be accompanied by the information on inter-state migrant workers electronically on the Online Portal in **Form-XXV**.

(5) Every application referred to in sub-rule (1), shall be accompanied by relevant documents as per notification issued by the State Government.

**52. Procedure for issue of license under sub-section (2) of Section 48-**

(i) Before a license is issued under any rule of these rules, security deposit in the form of bank guarantee for an amount calculated at the rate of Rs. 1000/- for each of the worker to be employed as contract labour, in respect of which the application for license has been made, shall be deposited by the contractor for performance of the conditions of the license and compliance with provisions of the code or the rules made thereunder.

(ii) Wherein the issued contract license had expired, based on the request of the applicant in Form, the licensing officer may adjust the security deposit in respect of his application for new license.

(iii) The amount of fees applicable for the grant of a license shall be paid in the following rates:

| Sl. No. | Number of employees/workers proposed to be employed. | Fees applicable in Rupees |
|---------|--|---------------------------|
| a       | No license is required up to 49 contract labour      | Nil                       |
| b       | 50 but does not exceed 100 contract labour           | 1000/-                    |
| c       | 101 but does not exceed 200 contract labour          | 2000/-                    |
| d       | 201 but does not exceed 300 contract labour          | 3000/-                    |
| e       | 301 but does not exceed 400 contract labour          | 4000/-                    |
| f       | 401 but does not exceed 500 contract labour          | 5000/-                    |
| g       | 501 but does not exceed 1000 contract labour         | 8000/-                    |
| h       | 1001 but does not exceed 2000 contract labour        | 10000/-                   |
| i       | 2001 and above                                       | 15000/-                   |

53. of for the of

Manner applying Renewal license

**under sub-section (3) of section 48-**

(i) Every contractor shall apply electronically in the Official Web Portal to the licensing authority for renewal of the license.

(ii) Every such application shall be submitted on the said portal at least 30 days prior to expiry of license period but not before 90 days of such expiry of license.

(iii) The security deposit and the fee chargeable for renewal of the license shall be the same as for the grant of license under rule 52(iii).

Provided that if the application for renewal is not received within the time specified in sub-rule (ii) of Rule 79 an additional fee of **twenty five percent**, shall be payable for such renewal.

(iv) Every application for renewal, complete in all respects, shall be made electronically. The renewal certificate shall be auto generated and the same may be downloaded by the applicant from the portal.

(v) Renewal of licence fee and all other factory related fees are enclosed at **Annexure-K, L and M**.

**54. Refund of security deposit: -**

(i) On expiry of the period of license the contractor may, if he does not intend to have his license renewed further, make an application electronically to the licensing authority for the refund of the security deposited by him (in form of bank guarantee) along with copy of license and notice of completion of work and bank details in which amount is required to be refunded.

(ii) If the Licensing authority is satisfied that there is no breach of the conditions of license or there is no order for the forfeiture of security deposit or any portion thereof, he shall direct the refund of the security deposit to the applicant.

(iii) If there is any order directing the forfeiture of any portion of contractor's security deposit, the amount to be forfeited shall be deducted from the security deposit, and balance, if any shall be refunded to the contractor.

(iv) Any application for refund shall, as far as possible, be disposed of within 30 days of the receipt of the application.

**55. Responsibility of contractor under sub-section (4) of Section 48: -**

- (1) The rates of wages payable to the workers by the contractor shall not be less than the rates prescribed under the Code on Wages, 2020 and where the rates have been fixed by agreement, settlement or award, not less than the rates fixed by such agreement or award.
- (2) In case where the worker employed by the contractor perform the same or similar kind of work as the worker directly employed by the principal employer of the establishment, the wage rates, holidays, hours of work and other conditions of service of the workers of the contractor shall be the same as applicable to the workers directly employed by the principal employer of the establishment on the same or similar kind of work. In case of any dispute whether the work is of similar kind, the matter be referred to the Inspector-Cum-Facilitator whose decision shall be final.
- (3) In other cases, the wage rates, holidays, hours of work and conditions of service of the workers of the contractor shall be such as specified under the Code and rules made there under.
- (4) All registered contractors have to register their establishment employing contract labour under EPFO and ESIC as per provisions of Code on Social Security, 2020.
- (5) All contract labour shall be made member of EPFO and ESIC subject to applicability as under respective provisions of the Code on Social Security, 2020.
- (6) The contractor shall notify any change in the number of workers or conditions of work to the Licensing Authority, electronically.
- (7) If the contractor employees contract labourers from outside state the provisions of Part-II of Chapter IX of OSHWC Code 2020 shall be followed.

**56. Intimation of work order and time limit for intimation under sub-section (1) of section 50.-**

- (1) Every contractor shall make an application electronically or otherwise to such authority as may be designated, by notification, by the State Government within fifteen days of the receipt of a contract work order shall intimate about the contract work order containing the details such as the name of the principal employer, address of the premises where work is being undertaken, date of commencement of the contract work, the number of contract labour employed under that work order, duration of work orders.
- (2) The details of work order shall be sent by the contractor or his authorized representative.
- (3) The intimation shall be sent electronically on the Online Portal or e-mail of the Labour Commissioner or his representative as may be notified.

**57. Revocation or suspension or cancellation of Licence under section 50.-**

- (1) If the Licensing Authority is satisfied that the licence has been obtained by mis-representation or suppression of any material fact or if the employer/contractor has failed to comply with the conditions subject to which licence was granted or the employer/contractor has contravened any provision of the Part- I, Chapter- XI of the Code or rules made thereunder, the Licensing Authority shall issue a show cause notice of 15 days to the employer/contractor electronically. On receipt of the reply if any, from the employer/contractor within 15 days, the Licensing Authority shall examine the same and in case the licensing authority feels that the continuation of contract business by the employer/contractor is going to lead to grave harm to the workers, he may pass a Speaking Order recording the reasons for revocation or suspension or otherwise and communicate to the employer/contractor electronically. A copy of the Order shall be endorsed to the Labour Commissioner/Chief Inspector-cum-Facilitator and to concerned Authorities.
- (2) If any licence holder failed to comply with the provisions of this rule his/her licence may be revoked/suspended without further any correspondence.
- (3) If the employer/contractor has complied with the said provisions of the code and rules made thereunder within the stipulated time period, the Licensing Authority shall revoke the suspension giving a Speaking Order or else the suspension may be continued.
- (4) If the employer/contractor fails to comply with the directions as in sub-rule (1), the Licensing Authority may forthwith pass an order of revocation of license, recording the reasons thereof and communicate to the employer/contractor electronically. The copy of the order shall be endorsed electronically to Labour Commissioner Chief Inspector-cum-Facilitator and concerned Authority.

**58. Responsibility of Payment of wages under sub-section (1) and (2) of Section 55-**

- (1) The contractor shall fix the wage periods in respect of which wages shall be payable and no wage period shall exceed one month.
- (2) The wages of every person employed as contract labour in an establishment or by a contractor shall be paid before the expiry of seventh day after the last day of the wage period in respect of which the wages are

payable.

(3) The contractor shall make the disbursement of wages through bank transfer or electronic mode and to inform to the principal employer electronically the amount so paid by such mode.

**59. Making payment of wages from the security deposit amount under sub-section (4) of section 55-**

If the contractor or principal employer does not pay the wages to the contract labour employed by him, the Labour Commissioner, Government of Tripura or his representative or the competent officer as may be notified by Government of Tripura shall conduct or cause to conduct, an inquiry and after giving an opportunity to be heard to the contractor shall pass an order to make payment if any, of such wages from the amount deposited by the contractor as security deposit and the bills of the contractor as the case may be. The contractor shall re-furnish the security deposit within a period of 30 days or else his license will be liable to be suspended.

**60. The form of issuing experience certificate under section 56-**

Every concerned contractor shall issue on demand, experience certificate in **Form-XVII** to the contract labour giving details of the period, work performed, experience gained in various fields performed by such contract labour.

**61. Prohibition of employment of contract labour under sub-section (2) of section 57-**

If a question arises as to whether any activity of an establishment is a core activity or otherwise, the aggrieved party may make an application, to the Labour Commissioner, giving reasons alongwith supporting documents who shall forward it to the State Government with comment thereon within a period of thirty days of receipt of the application.

## **PART II**

### **Inter-State Migrant Workers**

**62. Service for Entitlement and other matters under Section 61.-**

(1) The employer shall pay a lump sum amount on account of fare for to & fro journey to inter-state migrant worker by train (not less than II Class Sleeper) or by bus or any other mode of passenger transport from the place of employment to the place of residence in the home-state in the event of the following, namely: if he has worked for a period of not less than 180 days in the concerned establishment(s) in preceding twelve months.

Provided that the journey allowance shall be given to an inter-state migrant worker once in twelve months. In the event of change of employer by the inter-state migrant worker during the middle of the employment period and has not availed the journey allowance from his previous employer, then on the basis of a certificate to be given by inter-state migrant worker, the employer where the inter-state migrant worker is now working and the such worker has completed one hundred and eighty days in preceding twelve months including the period spent with the previous employer, then the employer shall give journey allowance..

(2) The employer shall make necessary arrangement to provide basic amenities to the migrant workers as specified by the State Government from time to time. The education of children of the Inter-State Migrant workers may be imparted in their native language by any reputed institution/Government educational institution with or without the funding from the State Government.

**63. Setting up of a Toll-Free helpline number to the inter-state migrant worker under Section 63.-** A Toll-Free help-line number shall be provided by the State Government, to address queries and grievances of the inter-state migrant workers.

**64. Study of inter-state migrant workers under Section 64.-** The State Government may identify the studies to be carried out to promote safety, health and welfare of inter-state migrant workers. Wherever required the State Government may also consult the Central Government or expert organizations involved in the safety, health and welfare of inter-state migrant workers. The study of Inter-State Migrant workers may be conducted by any reputed insitution through its research scholars with or without the funding from State Government.

## **Chapter-X**

### **AUDIO-VISUAL WORKERS**

**65. Agreement for audio-visual worker under clause (a) of sub-section (2) of section 66.-**

(1) The Form of agreement for the audio-visual workers with the producer is given in **Form-XVIII**.

(2) The agreement shall be registered with the competent authority as may be notified by the State Government.

**66. Authority to whom a copy of the Agreement is to be forwarded by the producer in respect of audio-visual worker under sub-section (3) of section 66 of the Code.**

The copy of Agreement as referred to in sub-section (1) of section (66) of the Code shall be in **Form- XVIII**, (see Rule 91 (1) and shall be forwarded by the Producer of the Audio-Visual programme to an Officer not below the rank of Labour Officer as the Authority under sub-section (3) of section 66 of the Code.

**67. Procedure for reference of dispute to a Conciliation Officer or a Tribunal under clause (vii) of sub-section (4) of section 66 of the Code:**

The procedure for reference of dispute to a Conciliation Officer or a Tribunal shall be in conformity with the industrial relation, Code 2020 and rule framed there under.

#### CHAPTER – XI BEEDI AND CIGAR WORKERS

**68. Form of application for grant of license under section 74 (2):**

(1) Every application under sub-section (2) of Section 74 for a license to use any place or premises as an industrial premises shall be made electronically in **Form-I** to the Licensing Authority as notified by the Government through Online Portal of Labour Department, Government of Tripura. Provided that if the application for the Licence is complete in all respects the Licencing authority will issue a licence in **Form- XVI**.

Before granting a licence, the Licencing Authority shall also take into consideration whether the site of any industrial premises is proposed to be altered or whether any industrial premises has been closed, by the applicant during the period of twelve months immediately preceding the date of the application with a view to causing prejudice to the interest of the workers

**69. Subject to the provisions of section 74(2):**

(a) The amount of fee for grant of license and renewal thereof for five years shall be paid electronically in **Form-I** through Online Portal. The amount of fee and late fee to be paid for the grant of a licence and renewal of licence under section 74 as mentioned as 69(c).

(b) Provided that if the application for renewal, complete in all respects, is not received within the time specified in sub-section (6) of section 74 of the Code, the licence shall be renewed only on payment of an additional fee of twenty-five-percent of the fees ordinarily payable for the renewal of a licence for one year, for which the application has been received late.

(c) The amount of fees applicable for the grant of a license shall be paid in the following rates:

| Sl. No. | Number of employees/workers proposed to be employed. | Fees applicable in Rupees |
|---------|--|---------------------------|
| a       | Upto 50  | 1000/-                    |
| b       | 50 but does not exceed 100                           | 2000/-                    |
| c       | 101 but does not exceed 200                          | 3000/-                    |
| d       | 201 but does not exceed 300                          | 4000/-                    |
| e       | 301 but does not exceed 400                          | 5000/-                    |
| f       | 401 but does not exceed 500                          | 8000/-                    |
| g       | 500 and above  | 10000/-                   |

(d) The Authority designated under section 119 shall renew or refuse to renew the license within thirty days from the date of receipt of application for renewal

(e) The fees payable under this Rule shall be credited in the Government treasury under the State Head of account notified in this regard.

**70. Subject to the provisions of section 74(3):**

The application shall be accompanied by plans showing —

(a) the site of such place or premises, the areas thereon to be used for manufacturing processes and the immediate surroundings of such place or premises, including adjacent buildings, structures, roads, drains, and the like, and

(b) the plan, elevation and necessary cross-sections of, the details relating to natural lighting, ventilation, means of escape in case of fire, position of the plant and machinery, if any, used, aisles and passage-ways in or in relation to the various buildings which are intended to be used for manufacturing Processes.

**71. Refusal to grant a licence in certain cases.-** Subject to the provisions of section 74(4) of the Code, the concerned Licensing Authority may refuse to grant a licence if he is satisfied

(i) that an online application is not accompanied by the documents; or

(ii) that the conditions subject to suitability of the place or premises have not been complied with; or

(iii) if not having the sufficient financial resources or financial capacity to meet the demands arising out of the provisions of the laws for the time being in force relating to welfare of labour;

(iv) if benami of any other person.

**72. (i)** If the Licensing Authority refuses to grant or renew any licence under section 74, it shall order the refund of the fees paid thereof.

(ii) If no industry or manufacturing process connected with the making of beedi or cigar is carried on in an industrial premises at any time during the period of validity of the licence in respect thereof, the licence may within a period of three months from the last date of the financial year for which the licence was granted or renewed, apply to the competent authority for the refund of the fee paid by him for such Licence and the competent authority shall, after making such enquiry as he may deem necessary and after satisfying himself about the correctness of the statements made in the application, order refund of such fee.

**73. (i)** A licence granted or renewed under the Code and these rules may be amended by the licensing authority on an application from the licensee:

(ii) The application for the amendment of a licence shall be accompanied by:-

(a) A statement indicating the nature of the amendment required;

(b) A statement showing the change in particulars already furnished in **Form-I** under rule 64 which necessitate the application for amendment;

(c) Fresh plans as provided in rule 64 in cases where the plans submitted with the original application no longer hold good;

(d) the licence granted to be uploaded

(iii) The amount that would have been payable if the licence had originally been issued in the amended form deducting the fee originally paid for the licence.

(iv) An application for the amendment of the licence shall be dealt with by the Licensing Authority in the same manner as an application for grant of a licence.

**74. Procedure on death or insolvency of Licensee.-** (1) If a licensee dies or becomes insolvent, the person carrying on the business of such licensee shall apply through the online portal of the Labour Department for grant of licence in his own name for the unexpired period of the original licence within thirty days from date of death or insolvency.

(2) The licensing authority shall, if approves it, enter the licence under his signature and endorsement to the effect that the licence has been granted to the applicant

(3) An application for the licence under this rule shall be dealt with by the Licensing Authority in the same manner as an application for the grant of a licence.

**75. Appeals under section 75:** A person aggrieved by the decision of the Authority referred to in sub-section (1) of section 119 shall make an appeal as per section 75 of the Act to the Appellate authority for grant/renewal of a licence with an application accompanied by the rejection order or the Registering Authority and on payment of a Fees receipt of Rs. 500/- to be deposited in the official account of Appellate Authority within a time period of thirty dates of the passing of rejections order. The fees payable in respect of an appeal under section 75 of the Act shall be as follows;

(a) Rupees five hundred, in the case of an appeal against an order refusing to grant or renewal a Licence or any other case.

**76. Welfare facilities for beedi and cigar workers under section 76(1): -**

(1) **Cleanliness:** Every industrial premise shall be kept clean and free from effluvia, arising from any drain, privy or other nuisance and in particular-

(a) Accumulation of dirt and refuse shall be removed daily by sweeping or by any other effective method from the floors and passages of work rooms and from staircases and passages and disposed of in a suitable manner;

(b) the floor of every work room shall be cleaned at least once in every week by washing, using disinfectant; where necessary or by some other effective method;

(c) all inside walls and partitions, of ceilings of rooms and of walls, sides and staircases shall-

(i) where they are painted or varnished or where they have smooth impervious surface, be cleaned with fresh water and dried at least once in every period of fourteen months;

(ii) where they are painted or varnished, re-painted or re-varnished at least once in every period of five years;

(iii) In any other case, be kept whitewashed or color washed at least once in every twelve months.

(2) **Washing & Cleaning:** - The record of the dates on which whitewashing, color-washing, varnishing, painting or cleaning, as the case may be, was carried out under sub-rule (1) shall be entered by the employer in a register.

(3) **Ventilation:** - In every work room or hall of an industrial premises, windows and other forms of openings for ventilation shall be provided in sufficient number to admit a continuous supply of fresh air so as to keep the atmosphere inside such room or hall comfortable and free from the dust, fumes and other impurity.

(4) **Latrines:** -

(i) Latrine accommodation shall be provided in every industrial premises at the rate of one latrine seat for every twenty male employees. Provided that where the number of such male employees exceeds hundred, it shall be sufficient if there is one latrine seat for every twenty-five male employees upto the first hundred and one seat for every fifty in excess thereof.

**Explanation:** In calculating the number of seats required in accordance with the provisions of this sub-rule, any odd number of employees less than twenty, twenty-five or fifty, as the case may be shall be reckoned as twenty, twenty-five or fifty.

(ii) Where female employees are employed on any industrial premises, separate Latrine accommodation shall be provided for them in accordance with the same scale as the scale for male employees specified in clause (i).

(iii) Every Latrine shall be under cover and every seat in the Latrine shall be so partitioned off as to secure privacy and each partition shall have a private door and fastenings.

(iv) Where employees of both sexes are employed on any industrial premises, there shall be displayed outside each latrine block thereon a notice in the language understood by the majority of the employees reading, "for men only" or, as the case may be "for women only" and such notice shall also bear the picture of a man or a woman as the case may be.

(v) **Water taps etc. in latrines:** Where piped water supply is available, a sufficient number of water taps, conveniently accessible shall be provided in or near Latrines on an industrial premises and where there is no continuous supply of water, water cisterns with cans shall be provided for washing purposes in or near such Latrines.

(5) **Urinals:** -

(i) urinal accommodation shall be provided in every industrial premises (other than industrial premises where less than fifty persons are employed or where the Latrines are connected to a water-borne sewage system) and such accommodation shall not be less than six metres in length for every fifty employees. Provided that where the number of employees employed on the premises exceeds five hundred, it shall be sufficient if there is one Urinal for every fifty employees upto the first five hundred employees and one for every hundred in excess thereof.

**Explanation:** - In calculating the urinal accommodation required under this sub-rule, any odd number of employees less than fifty or hundred, as the case may be, shall be reckoned as fifty or hundred.

(ii) where female employees are employed on an industrial premise, separate urinal accommodation shall be provided for them in accordance with the same scale as the scale for male employees specified in clause(i).

(6) **Latrines and Urinals to be connected to sewage system where ever possible:** - When any general system of underground sewage with an assured water supply is provided for or exists in particular locality, all latrines and urinals in an industrial premises in such locality other than a septic tank latrine shall be connected with such sewage system if the industrial premises is situated within 30.5 metres of that sewage.

(7) **White washing and color washing of Latrines and Urinals:** -

(i) The walls, ceilings and partitions of every latrine and urinal shall be white-washed or color washed and the same shall be repeated at least once in every period of four months.

(ii) Nothing in clause (i) of sub rule (7) shall apply in respect of walls, ceilings, and partitions in a latrine or urinal or any portions of such walls, ceilings and partitions which are laid in glazed tiles or otherwise finished to prove a smooth polished impervious surface, but such walls, ceilings, partitions, or portions thereof shall be washed with suitable detergents and disinfectants at least once in every period of four months.

(iii) The dates on which the white washing or color-washing is carried out under clause (i) or, as the case may be, washing with detergents and disinfectants is carried out under clause (ii) shall be maintained and entered by the employer in the register.

**(8) Construction and maintenance of drains.** - All drains work on an industrial premises for carrying waste or silage water shall be constructed in masonry or other permeable materials, and shall be regularly flushed and effluent disposed, of by connecting such drains with suitable drainage lines. Provided that where there is no such drainage lines, the effluent shall be decolorized in order to render it innocuous and then disposed of.

**(9) Washing facilities:**

(i) There shall be provided and maintained in every industrial premises for the use of employees engaged in bleeding and staving of tobacco or warming of beetles in hot ovens, adequate and suitable facilities for washing which shall include soap and nail brushes or other suitable means of cleaning and such facilities shall be conveniently accessible and shall be made available in clean and orderly condition.

(ii) If female employees are employed on any industrial premises, separate washing facilities on the same lines as those specified in clause (i) in respect of male employees shall be provided for such female employees in enclosed or screened places in such manner that the interior portions of such places are not visible from any place where male employees work or through and the entrance to every such places shall bear a notice in the language understood by the majority of the employee reading "For women only" in bold and conspicuous letters and such notice shall also bear the picture of a women.

(iii) Water supply for the purpose of washing facilities under clause (i) or clause (ii) shall be such as to provide at least 27.3 liters per day for each person employed in the industrial premises and such water shall be drawn from a hygienic source. Provided that where an Inspector-cum-Facilitator is satisfied that is not practicable to make available water-supply in accordance with the scale specified under this clause, he may by a certificate in writing permit the supply of a lesser quantity which shall in any case be not less than 4.5 liters per day for each employee.

**(10) Crèches:**

(i) In every industrial premise wherein fifty or more women workers are employed or were employed on any day of the preceding twelve months, the employer shall provide and maintain a crèche or crèches for the use of their children who are below the age of six years according to the standards laid down in these rules.

(ii) The crèche shall conform to the following standards, namely: -

(a) the crèche 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 industrial premises where obnoxious fumes, dust or odors given off;

(b) the room or rooms used as crèche shall be soundly constructed and all the walls and roof thereof shall be of heat-resisting materials and shall be water-proof;

(c) the floor and internal walls of the crèche up to a height of 1.2 meters shall be so laid or finished as to provide a smooth impervious surface;

(d) the height of each room used as a crèche shall be not less than 3.7metres from the floor to the lowest part of the roof and there shall not be less than 1.9 square meters of floor area for each child to be accommodated therein;

(e) effective and suitable provisions shall be made in every part of crèche for securing and maintaining adequate ventilation by the circulation of fresh air.

(iii) The crèche shall be adequately furnished and equipped and in particular there shall be made available-

(a) for each child of more than two years of age a suitable bedding;

(b) for each child of not more than two years of age a suitable cot or-cradle with the necessary bedding;

(c) at least one chair or other similar sitting accommodation for the use of each mother while she is feeding or attending to her child and;

(d) a sufficient supply of suitable toys for the older children.

(iv) There shall be, in or adjoining crèche a suitable washing room for the washing of the children and their clothing and such room shall conform to the following standards, namely:

- (a) the floor and internal walls of the room up to a height of 0.9m shall be laid or finished as to provide a smooth impervious surface;
  - (b) the room shall be adequately laid and ventilated and the floor shall be effectively drained and maintained in a clean and tidy condition;
  - (c) the supply of water for washing shall be from a hygienic source and if practicable shall be through taps;
  - (d) supply of at least 22.7 liters of water per day for each child shall be made available;
  - (e) an adequate supply of clean clothes, soap and clean towels shall be made available for the use of each child;
  - (f) adjoining the wash room, a septic type Latrine shall be provided for the sole use of the children in the crèche and the same shall be kept clean and in a sanitary condition.
- (v) The employer shall make available at least half-a-pint of pure milk for each child on every day it is accommodated in the crèche and the mother of such child shall in the course of daily work, be allowed adequate intervals of not less than fifteen minutes to feed the child.
- (vi) In addition to providing milk in accordance with the provisions of sub-rule (v) the employer shall provide for children above two years of age who are accommodated in the crèche an adequate supply of wholesome refreshment.
- (vii) The employer shall appoint, a woman trained in the care of children and infants and sufficient number of ayahs for the purpose, of looking after the children accommodated in a crèche and he shall also provide suitable equipment and facilities for the purpose.

Explanation: The number of ayahs to be appointed in the crèche shall be calculated at the rate of one ayah for every thirty children.

(viii) the employer shall provide for the staff employed in crèche, suitable clean clothes for use while on duty in the crèche.

Explanation: In this rule, children's means a child under six years of age of a female employee.

#### (11) First-aid:

(i) In every industrial premises there shall be provided and maintained so as to be readily accessible during all working hours first aid boxes or cupboards containing the equipment specified in clause (ii) and the number of boxes or cupboards to be so provided and maintained shall not be less than one for every hundred and fifty employees ordinarily employed at any one time in the premises.

(ii) The first aid boxes or cupboards shall be distinctively marked with a red cross on a white background and shall contain the following equipment, namely: -

- (a) six small sterilized dressings;
- (b) three medium-size sterilized dressings;
- (c) three large-size sterilized dressings;
- (d) three large-size sterilized burn dressings;
- (e) one (1 oz) bottle containing a 2 percent alcoholic solution of iodine;
- (f) one (1 oz) bottle containing salicylic acid having the dose and mode of administration indicated on the label;
- (g) a snake-bite lancet;
- (h) one (1 oz) bottle of potassium permanganate crystals;
- (i) one pair scissors;
- (j) eye drops;
- (k) adhesive plaster;

(iii) Each first-aid box or cupboard shall be kept in the charge of a person who is trained in first-aid treatment and who shall always be readily available during the working hours of the working hours of the industrial premises.

#### (12) Canteens:

(i) The employer of every industrial premises where not less than 250 employees are ordinarily employed shall provide in or near the industrial premises, a canteen.

(ii) The canteen shall not be situated within 15.2 meters of any latrine, urinal or any other source of dust.

(iii) The canteen building shall consist of at least dining hall, kitchen, store room and pantry in addition to washing places separately for employees and for utensils.

(iv) The maximum height of the building shall be not less than 3.7 meters and all the walls and roof shall be of suitable heat-resisting materials and shall be water proof. There shall be provision for adequate ventilation. The doors and windows shall be of fly-proof construction.

vi) The canteen shall be sufficiently lighted at all times when any person has access to it

(i) In every canteen :-

(a) all inside walls of rooms and all ceilings and passages and staircases shall be lime-washed or colour-washed at least once in each year or painted once in three-year dating from the period when last lime-washed or colour-washed or painted, as the case may be

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

(c) all internal structural iron or steel work shall be varnished or painted in three years dating from the period when last varnished or painted; provided that the inside portion of the walls of the kitchen shall be lime-washed once in every four months;

vii) The dates on which lime-washing, colour washing, varnishing or painting is carried out shall be entered by the employee in the Register maintained in Form III

(viii) The precincts of the canteen shall be maintained in a clean and sanitary condition; waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance, suitable arrangements shall be made for the collection and disposal of garbage.

(ix) (a) The dining hall shall accommodate at a time at least 30% of the employees working at a time.

(b) The floor of the dining hall excluding the area occupied by the service counter and any furniture except tables and chairs shall be not less than 93 sq. meters per diner to be accommodated as specified in clause (a).

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

(d) Sufficient tables, Chairs or benches shall be available for the number of diners to be accommodated as specified in clause (a).

(x) (a) There shall be provided and maintained sufficient utensils, crockery, cutlery, furniture and any other equipment necessary for the efficient running of the canteen, suitable cloths for the employees surveying in the canteen shall also be provided and maintained.

(b) The furniture, utensils and other equipment shall be maintained in a clean and hygienic condition, a service counter, if provided shall have a top of smooth and in previous material, suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment.

(c) Food and food materials shall be stored in fly-proof safes and handed with the help of wooden lade less or suitable metal forces whichever is convenient. Vessels once used shall be scalded before being used again.

(xi) Food, drinks and other items served in the canteen shall be served on a no profit no loss basis.

**77. Permission to work by employees outside industrial premises and Record of Outside work under section 76(2)-**

(i) The record to be maintained by the employer for the work permitted under sub-section (1) of section 76 to be carried on the outside of the industrial premises shall be in **Form-XX**.

(ii) Condition to work outside the industrial premises: -

The employer shall apply to the Licensing Authority to permit the wetting and cutting of Beedi or tobacco leaves by employees outside industrial premises subject to the following conditions:

(a) The health safety measures of the employees outside the premises are ensured.

(b) No child as defined under the Child and Adolescent Labour (P&R) Act, 1986, are engaged even outside the premises.

(c) the employee is paid minimum wages as fixed by the State Government under the Code on Wages, 2019.

## CHAPTER - XII FACTORIES

**78. Rules in respect of factory or class or description of factories under sub-section (1) of Section 79 -**

The Government or the Chief Inspector-Cum-Facilitator may require for the purposes of the Code, submission of plans of any factory which was either in existence on the date of the commencement of these Rules or which had not been constructed or extended since then. Such plans shall be drawn to scale showing:

(a) the site of the factory and immediate surrounding including adjacent buildings and other structures, roads, drains, etc.

(b) the plan, elevation and necessary cross-sections of the factory buildings indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire, and the position

- of the plant and machinery, aisles and passage-ways: and  
(c) such other particulars as the Government or the Chief Inspector-cum-Facilitator, as the case may be, may require.

**79. Mode of submission of application under sub-section (2) of Section 79-**

(1) No building shall be constructed or used as factory unless plans in respect of such building are approved by the Chief Inspector-Cum-Facilitator.

(2) No addition/alteration or extension in the existing factory building shall be made unless plans in respect of such additions, alterations or extensions are approved by the Chief Inspector-Cum-Facilitator.

(3) Application for approval of the plans shall be made electronically in **Form-I** alongwith the following plans and documents to the Inspector-Cum-Facilitator of the area: -

- a) Flow chart of the manufacturing process giving a brief description of the process in its various stages,
- b) Site plan drawn to scale showing the site of the factory and immediate surroundings including adjacent buildings and other structures, roads, drains, etc.
- c) The Plan, elevations and necessary cross-sections drawn to scale showing all relevant details relating to natural lighting, ventilation, and means of escape in case of fire, position of plant and machinery, aisles and passage ways.
- d) Such other particulars as the Inspector - Cum- Facilitator may require in relation to the approval.

(4) If the Inspector Cum Facilitator is satisfied that the plans and documents are in consonance with the requirements of the rules, he shall forward the plans and documents to the Chief Inspector-Cum-Facilitator for approval. The Chief Inspector-Cum-Facilitator after being similarly satisfied shall approve the plans:

Provided that where the plans and documents fall short of the requirements of these rules, the Inspector-Cum-Facilitator or the Chief Inspector-Cum-Facilitator as the case may be, may return the documents to the applicant for modifications and corrections as suggested therein:

Provided further that the plans shall not be deemed to have been submitted till such time as they are re-submitted duly modified and amended.

(5) The internal height of a work room shall be not less than 4.25 meter 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 of lining of heat-resisting material with an air space of at least 10cm. between it and the corrugated iron, the internal height shall be not less than 5meter:

Provided that in the case of building having a brick or concrete roof, or a combination of the two, the minimum height may be 3.75 meter if approved by the Chief Inspector of Factories:

(6) 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 (3.35 square meter) of floor space exclusive of that occupied by machinery and a breathing space of at least 500 cubic feet (14 cubic meter).

(7) The provisions of sub-rule (5) of Rule 5<sup>3</sup> shall not apply to rooms intended for storage, go-downs and like purposes and also rooms intended solely for office purposes where only clerical work is done.

(8) No manufacturing process shall be carried on in any building or part of a building whether newly constructed, re-constructed or extended, or in any building which has been taken into use as a factory or part of a factory until a **Certificate of Stability** in respect thereof, in **Form-XXI** signed by a competent person has been sent by the occupier or manager of the factory to the Chief Inspector-Cum-Facilitator and accepted by him. Neither any new plant nor machinery shall be added in any building of a factory nor brought into use after such addition until a certificate of stability in **Form-XXI** signed by a competent person in respect thereof has been sent by the occupier or manager of the factory to the Chief Inspector - Cum- Facilitator and accepted by him. No person except in the case of building owned by any Government shall be authorized to sign a certificate of stability or to certify plans and specifications who is in the employment of the owner or builder of the building in respect of which the certificate is given.

(9) The employer seeking registration for a factory and grant of a licence or renewal/amendment of a license shall apply electronically on the official Portal of State Government for the registration and grant of a license or renewal/amendment of a license by giving details about the factory as specified in the **Form-I**. The **Form** shall be signed digitally or in any other manner as may be required on the portal. The applicant shall be responsible for veracity of all information submitted in the application.

Provided that the occupier of the premises in use as a factory on the date of commencement of these rules shall submit such an application within six months.

(10) A registration certificate for a factory shall be granted in **Form-II** by the Chief Inspector-cum-Facilitator or any other officer appointed and specially empowered in this behalf by the Chief Inspector - cum- Facilitator electronically immediately, if the application is complete in all respects but not later than thirty days from the date of submission of complete application, being which such license shall be deemed to have been issued.

Provided that in exceptional circumstances the Government of Tripura may, for such period, by notification, dispense with requirement of electronic registration, in respect of a factory or class of factories, or part or whole of Tripura, and submission of application in the form so provided, may be allowed.

(11) Every application for renewal shall be submitted on the official portal at least 30 days prior to expiry of license period but not before 90 days of such expiry and if the application is complete in all respects, the renewal certificate shall be auto generated in **Form-XVI** and the same may be downloaded by the applicant from the portal.

Provided that if the application for renewal, complete in all respects, is not received within the time specified in sub-rule (11), the licence shall be renewed only on payment of a fee **twenty five percent in excess of the fees ordinarily payable for the renewal of the licence.**

(12) Every license granted or renewed or amended is subject to the following conditions, namely:

(i) the license shall be non-transferable;

(ii) the number of workers employed shall not, on any day, exceed the amount specified in the license;

(iii) nature and amount of power to be used shall not, on any day, exceed the amount specified in the license;

(iv) save as provided in these rules, the fees paid for the grant, or as the case may be, for renewal of the license shall be non-refundable.

(13) The fee shall be notified by the State Government from time to time for grant or renewal/amendment of license. Every license granted or renewed under these rules shall be valid for a period up to 10(ten) years as per the request of the licensee is granted or renewed.

#### **80. Common facilities and services for joint liability of owner of premises and occupiers of the factories under Section 80**

(1) Wherein any premises, separate buildings are leased to different occupiers for use as separate factories, the owner of the premises shall be responsible for the provisions and maintenance of common facilities and services, such as approach road, drainage, water supply, lighting and sanitation.

(2) Where in any premises, independent or self-contained floors or flats are leased to different occupiers for use as separate factories, the owner of the premises shall be liable as if he were the occupier or manager of the factory, for any contravention of the provisions of this Code, in respect of

i. latrines, urinals and washing facilities, so far as the maintenance of the common supply of water for these purposes is concerned;

ii. fencing of machinery and plant belonging to the owner and not specifically entrusted to the custody or use of an occupier;

iii. safeness of access to the floors or flats and maintenance and cleanliness of stair cases and common passages;

iv. precautions in cases of fire;

v. maintenance of hoists and lifts; and

vi. maintenance of any other common facilities provided in the premises.

(3) The Chief Inspector-Cum-Facilitator shall have subject to the control of the appropriate Government, power to issue orders to the owner of the premises in respect of carrying out of the provisions of sub-section (1) and (2).

(4) The provisions of sub-section (2) relating to the liability of the owner/occupier shall apply where in any premises independent rooms with common latrines, urinals and washing facilities are leased to different occupier for use as separate factories:

Provided, the owner/occupier shall be responsible for supplying the requirements relating to the provision and maintenance of latrines, urinals and washing facilities.

(5) The Chief Inspector-Cum-Facilitator shall have subject to the control of the appropriate Government, the power to issue orders to the owners/occupier of the premises referred to in respect of the carrying out of the provisions of section 24 of the code.

(6) Where in any premises, portions of a room or a shed is leased to different occupiers for use as separate factories; the owner/occupier of the premises shall be liable for any contravention of the provisions of—

- i. Chapter V of the code, except Section 23, sub-section (2) clause (iii) and (iv).
- ii. Chapter V of the code, except the List of matters at Sl. No. (2), (3), (7), (15) & (16) in the Second Schedule of the Code.

Provided in respect of the provisions at Sl. No. (1), (4), (12) listed in the Second Schedule of the Code, the owner's liability shall be only in so far as such provisions relate to things under his control:

Provided further that the occupier shall be responsible for complying with the provisions of Chapter V in respect of plant and machinery belonging to or supplied by him.

- iii. Chapter VI of the Code, Section 24, sub-section (1) clause (i).

(7) The Chief Inspector-Cum-Facilitator shall have subject to the control of the appropriate Government, the power to issue orders to the owners of the premises in respect of the carrying-out the provisions of clause (7) sub-section (1).

(8) In respect of Clause (4) and (6) of sub-section 1, while computing for the purposes of any of the provisions of this Code, the total number of workers employed, the whole of the premises shall be deemed to be a single factory.

#### **81. Rules under Section 82—**

(1) **Dangerous manufacturing operations.** -The following operations when carried on in any factory are declared to be dangerous manufacturing processes or operations under Section 82 of the code:

- i. Manufacture of aerated water and processes incidental thereto.
- ii. Electrolytic plating or oxidation of metal articles by use of an electrolyte containing acids, bases or salts of metals such as chromium, nickel, cadmium, zinc, copper, silver or gold.
- iii. Manufacture and repair of electric accumulators.
- iv. Glass manufacture.
- v. Grinding or glazing of metals.
- vi. Manufacture and treatment of lead and certain compounds of lead.
- vii. Generation of gas from dangerous petroleum as defined in clause (b) of Section 2 of the Petroleum Act, 1934.
- viii. Cleaning, smoothening or roughening etc. of articles by a jet of sand, metal shot, grit or other abrasive propelled by a blast of compressed air or steam.
- ix. Lining and tanning of raw hides and skins and processes incidental thereto.
- x. Carrying on of certain processes of lead and lead material in Printing Presses and Type Foundries.
- xi. Chemical works.
- xii. Manufacture of pottery and ceramics
- xiii. Compression of Oxygen and Hydrogen produced by the electrolysis of water;
- xiv. Manipulation of stone or any other material containing free silica;
- xv. 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;
- xvi. Handling or manipulation of corrosive substances
- xvii. Processing of cashewnut.
- xviii. Manufacture & Manipulation of Carcinogenic dye intermediates;
- xix. Process of extracting of oil & fats from vegetables and animal sources in solvent extraction plants.
- xx. Manufacture or manipulation of manganese and its compounds.
- xxi. Benzene.
- xxii. Carbon disulphide plants.
- xxiii. Operations involving High Noise levels.
- xxiv. Manufacture or manipulation of dangerous pesticides.
- xxv. Manufacture of Rayon by Viscose
- xxvi. Highly Flammable liquids and Flammable Compressed Gases.
- xxvii. Operation in foundries

(2) The provision specified in the Schedules B-I to Schedule B-XXVII annexed here to shall apply to any class or description of factories wherein dangerous operations specified in each Schedule are carried.

(3) "First Employment" means employment for the first time in a hazardous process or dangerous operation so notified under Section 82, or reemployment therein after cessation of employment in such process or

operation for a period exceeding 3 (three) calendar months.

**(4) Periodical Medical Examination.**

(i) For the medical examination of workers to be carried out by the certifying surgeon as required by **Schedule B-I to Schedule B-XXVII**, the occupier of the factory shall pay fee at the rate fixed and notified by the State Government from time to time for examination of each worker every time he/she is examined;

(ii) The fees prescribed in clause (i) shall be exclusive of any charges for biological, radiological or other tests which may have to be carried out in connection with the medical examinations such charges shall be paid by the occupier;

**(5) Welfare amenities, sanitary facilities, protective clothing and other necessary requirements for dangerous operations: -**

The provisions specified in the **Schedule B-I to Schedule B-XXVII** shall apply to any class or description of factories wherein dangerous manufacturing processes or operations specified in each Part of the Schedule are carried on.

(6) Notwithstanding anything contained in **Schedule B-I to Schedule B-XXVII**, the Inspector - Cum-Facilitator may issue order in writing to the Manager or Occupier or both, directing them to carry such measures, and within such time, as may be specified in such order with a view to remove conditions dangerous to the health of the worker or to suspend any process, where such process constitutes in the opinion of the Inspector - Cum-Facilitator imminent danger of poisoning or toxicity.

(7) Any register or record of medical examinations and tests connected therewith required to be carried out, under any of the **Schedule B-I to Schedule B-XXVII**, in respect of any worker, shall be kept readily available to the Inspector - Cum-Facilitator and shall be preserved till the expiry of a period of one year after the worker ceases to be in employment of the factory.

**82. Site Appraisal Committee under Section 83:**

(1) The Government of Tripura may constitute a Site Appraisal Committee as and when necessary, consisting of:

i) The Chief Inspector-Cum-Facilitator shall be its Chairman.

ii) a representative of the State Pollution Control Board of the Government of Tripura.

iii) a representative of Tripura Fire & Emergency Services Government of Tripura.

iv) a representative of the District Magistrate of the concern district.

v) an expert in the field of occupational health or Medical Officer, Health Department, Government of Tripura;

vi) a representative of the Department of Industries of the Government of Tripura;

vii) are source person having specialized knowledge of the hazardous process which will be involved in the factory; and

viii) any other person as deemed fit by the Chief inspector of Factories-cum-Facilitator, Government of Tripura.

(2) No member, unless required to do so by a court of law, shall disclose otherwise than in connection with the purposes 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 this Committee.

(3) i. Applications for appraisal of sites in respect of the industries covered under clause (za) of sub-section (1) of section 2 of the Code shall be submitted to the Chairman of the Site Appraisal Committee;

ii. The application for site appraisal along with fifteen copies thereof shall be submitted in **Form-XXII**. The Committee may dispense with furnishing of information on any particular item in the application Form, if it considers the same to be not relevant to the application under consideration.

iii. Functions of the Site Appraisal Committee:

(a) The Chairman shall arrange to register the applications received for appraisal of site in separate register and acknowledge the same within a period of seven days;

(b) The Chairman shall fix up the meetings in such manner that all the applications received and registered are referred to the Committee within a period of fifteen days from the date of receipt;

(c) The Committee shall adopt a procedure for its working keeping in view the need for expeditious disposal of applications;

(d) The Committee shall examine the applications for appraisal of a site with reference to the prohibitions and restriction on the location of an industry and the carrying on of 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 views in regard to the suitability of the site; and

(f) Wherever the proposed site required clearance by the Ministry of Industries or by the Ministry Environment and Forests of Government of India, the application for Site Appraisal will be considered by the Site Appraisal Committee only after such clearance had been received.

**83. The manner of disclosing information by occupier of a factory under sub-section (1), (2), (5) and (7) of Section 84;**

(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 prescribed in the Schedule-C, transportation and storage in the factory. It shall be accessible upon request to a worker for reference.

Every such Material Safety Data Sheet shall include the following information:

- a) The identity used on the label;
- b) Hazardous ingredients of the substance;
- c) Physical and chemical characteristics of the hazardous substance;
- d) The physical hazards of the hazardous substance, including the potential for fire, explosion and reactivity;
- e) The health hazards of the hazardous substance, including signs and symptoms of exposure and any medical conditions which are generally recognised as being aggravated by exposure to the substance;
- f) The primary route(s) of entry;
- g) The permissible limits of exposure prescribed in the Schedule-E of the Rules, and in respect of a Chemical not covered by the said Schedule, any exposure limit used for recommended by the manufacturer, importer or occupier;
- h) 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;
- i) Any generally applicable control measures, such as appropriate engineering controls, work practices, or use of personal protective equipment;
- j) Emergency and first aid procedures;
- k) The date of preparation of the Material Safety Data Sheet, or the last change to it;
- l) 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.

(2) 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 hazard of a substance, or ways to protect against the hazards, this new information shall be added to the Material Safety Data Sheet as soon as practicable.

(i) An example of such Material Safety Data Sheet is given in the Schedule- C.

(ii) Labeling: Every container of hazardous substances shall be clearly labeled or marked to identify:

- (a) the contents of the container;
- (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 needs to work safely with the hazardous substance.

**(3) Disclosure of information to workers:**

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

- a) Requirements of Sections 84, 85 and 89 of the Code.
- b) A list of 'hazardous processes' carried on in the factory;
- c) Location and availability of all Material Safety Data Sheets as per Rule 49;
- d) Physical and health hazards arising from the exposure to or handling of substances;

- e) Measures taken by the occupier to ensure safety and control of physical and health hazards;
  - f) Measures taken by the workers to ensure safe handling, storage and transportation of hazardous substances;
  - g) Personal Protective Equipment required to be used by workers employed in 'hazardous process' or 'dangerous operations;'
  - h) Meaning of various labels and markings used on the containers of hazardous substances as provided under Rule 51;
  - i) Signs and symptoms likely to be manifested 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 vis-a-vis the emergency plans of the factory, in particular the evacuation procedures;
  - l) Any other information considered necessary by the occupier to ensure safety and health of workers.
- (ii) The information required by sub-rule (i) shall be compiled and made known to workers individually through supply of booklets or leaflets and display of cautionary notices at the workplaces. The booklets, leaflets and the cautionary notices displayed in the factory shall be in the language understood by the majority of the workers and also explained to them.
- (iii) The Chief Inspector-Cum-Facilitator may direct the occupier to supply further information to the workers as deemed necessary.
- (4) Disclosure of information to general public:** (i) The occupier of every factory carrying on a 'hazardous process' shall in consultation with the District Emergency Authority designated by the Appropriate Government, take appropriate steps to inform the general public who are likely to be in the area which might be affected by an accident. Such information shall include:
- (a) Name of the factory and address where situated;
  - (b) Identification, by name and position, of the person giving the information;
  - (c) Confirmation that the factory has approval from the Factories Inspectorate and Pollution Control Board;
  - (d) An explanation in simple terms of the hazardous processes carried on in the premises;
  - (e) The common names of the hazardous substances used which could give rise to an accident likely to affect them, with an indication of their principal harmful characteristics;
  - (f) Brief description of the measures to be taken to minimize the risk of such an accident in compliance with its legal obligations under relevant safety statutes;
  - (g) Salient features of the approved disaster control measures adopted in the factory;
  - (h) Details of the factory's emergency warning system for the General Public;
  - (i) General advice on the action members of the public should take on hearing the warning;
  - (j) Brief description of arrangements in the factory, including liaison with the emergency services, to deal with foreseeable accidents of such nature and to minimize their effects; and
  - (k) Details of where further information can be obtained.
- (ii) The occupier shall also supply any further information—
- a) to general public as directed by the District Disaster Management Authority from time to time;
  - b) to the elected representatives of the general public on request;
- (iii) The occupier shall endeavor to enter an agreement with the District Disaster Management Authority for the area, within whose jurisdiction the factory is situated, for the District Disaster Management Authority to take appropriate steps to inform the general public outside the factory who are likely to be affected by an accident as required in clause (i).
- (iv) The information prescribed in sub-rule (4) shall be in the regional language and in English or local language.
- (5) Disclosure of information to the local authority:** The occupier of every factory carrying on a 'hazardous process' shall furnish the following information in writing to the local authority having jurisdiction over the area in which the factory is situated—
- (i) the information furnished to general public as prescribed in sub-rule (4);
  - (ii) a statement of the names and quantities generally stored or in process of hazardous substances included in the list of chemicals prescribed under clauses (vi) and (vii) of sub-section (2) of Section 3 of the Environment (Protection) Act, 1986.
- (6) Disclosure of information to District Disaster Management authority:**

(i) The occupier of a factory carrying on a hazardous process, shall intimate the District Disaster Management Authority designated by the State Government, all information having a bearing on preparation of an on-site emergency plan and a disaster control and management plan in respect of the factory.

(ii) Without prejudice to the generality of this clause, the occupier shall furnish the District Disaster Management Authority the following:

(a) a report on status relating to risk assessment and environmental impact assessment and the measures taken for prevention of accidents,

(b) compilation of Material Data Sheets in respect of hazardous substances used, produced or stored in the factory,

(c) a statement on all possible sources of accidents involving fire, explosion, release or leakage of toxic substances and the plan of the premises where such an accident may occur.

(d) A statement on resources and facilities available for dealing with an emergency including any agreement entered into with a neighboring factory for aid and assistance in the event of an emergency,

(e) A map of the area showing the approaches to the factory location of emergency facilities such as hospitals, police, fire service,

(f) The organisation of the management and the responsibility for safety indicating therein the persons responsible for on-site emergency action,

(g) Details relating to alert system,

(h) Information on availability of antidotes for poisoning resulting from an accident,

(i) Any other information as may be considered relevant by the occupier or asked for by the District Disaster Management Authority.

**(7) Disclosure of information to the Chief Inspector:**

(i) The occupier of every factory carrying on 'hazardous process' shall furnish, in writing, to the Chief Inspector cum Facilitator a copy of all the information furnished to the workers, local authority, general public and the District Disaster Management Authority.

(ii) 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.

(iii) The occupier shall also furnish any other information asked for by the Chief Inspector from time to time for the purpose of this Code and Rules made thereunder.

**(8) Emergency Plan:**

(i) The occupier of a factory carrying on a hazardous process shall prepare a draft on-site emergency plan and submit it to the Chief Inspector-cum-facilitator. The Chief Inspector-cum-facilitator may make such modification in the plan as necessary, in consultation with the occupier and approve the same.

(ii) The occupier will submit a copy of the approved plan to the District Disaster Management Authority.

(iii) The occupier will intimate the workers the provisions of the emergency plan and hold rehearsals of the plan periodically. He shall review the plan from time to time and make necessary changes therein under intimation to the Chief Inspector-cum-facilitator and the District Disaster Management Authority.

(iv) The Chief Inspector-cum-Facilitator may issue guidelines relating to formulation of emergency plans. He may also direct modifications of the emergency plan in respect of any factory as may be necessary, from time to time.

**(9) Disaster control and management plan:**

(i) The occupier of every factory carrying on a hazardous process shall prepare a draft disaster control and management plan in respect of his factory and submit the same to the Chief Inspector-cum-facilitator and the District Disaster Management Authority.

(ii) The District Disaster Management Authority on receipt of the plan shall hold consultation with the occupier, representatives of the Chief Inspector, the State Pollution Control Board, local authority as well as police, health fire brigade and other authorities concerned and finalize the plan.

(iii) The District Disaster Management Authority shall forward a copy of the final plan to the occupier and all authorities concerned. The occupier shall intimate the workers the contents of the plan.

(iv) The occupier in consultation with the District Disaster Management Authority will arrange rehearsals of the plan at least once a year.

(v) The Chief Inspector-cum-facilitator may issue guidelines for formulation of disaster control and management plans. The Chief Inspector as well as the District Disaster Management Authority may after mutual consultation also direct modifications of the disaster control and management plan in respect of a factory as may be necessary from time to time.

**(10) Information on industrial wastes:**

(i) The information furnished under sub rules (3), (5), (6) & (7) of Rule 83 shall include the quantity of the solid and liquid wastes generated per day, their characteristics and the method of treatment such as incineration of solid wastes, chemical and biological treatment of liquid wastes, and arrangements for their final disposal.

(ii) It shall also include information on the quality and quantity of gaseous waste discharged through the stacks or other openings, and arrangements such as provision of scrubbers, cyclone separators, electro-static precipitators or similar such arrangements made for controlling pollution of the environment.

(iii) The occupier shall also furnish the information prescribed in the clause (i) and clause (ii) to the State Pollution Control Board.

**(11) Review of the information furnished to workers etc.:**

(i) The occupier shall review once in every calendar year and modify, if necessary, the information furnished under sub rule (3) to (7) of Rule 83 to the workers, general public, local authority, Chief Inspector and the District Disaster Management Authority.

(ii) 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.

**(12) Confidentiality of information:** (i) The occupier of a factory carrying on 'hazardous process' shall disclose all information needed for protecting safety and health of the workers and the general public in the neighborhood—

- a. His workers;
- b. District Disaster Management Authority; and
- c. Chief Inspector-cum-Facilitator;

as required under sub rules (3), (6) and (7) of Rule 83. 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-cum-facilitator stating the reasons for withholding such information. The Chief Inspector-cum-facilitator shall give an opportunity to the occupier of being heard and pass an order on the representation.

(ii) An occupier aggrieved by an order of Chief Inspector-Cum-Facilitator may prefer an appeal before the State Government within a period of 30 days. The State Government shall give an opportunity to the occupier of being heard and pass an order. The order of the Government shall be final.

**84. The conditions for accessibility of the record by the workers under clause (a) of Section 85.-**

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

(i) Once in every six months or immediately after the medical examination whichever is earlier;

(ii) If the factory Medical Officer or the Certifying Surgeon as the case may be, is of the opinion that the worker has manifested signs and symptoms of any notifiable disease as specified in the Third Schedule of the Code.

(iii) If the worker leaves the employment;

(iv) If any one of the following authorities so direct

- the Chief Inspector-cum-facilitator;
- the Health Authority of the Central or State Government;
- the Commissioner of Employee's Compensation,
- the Director, Employees State Insurance Corporation (Medical Benefits); and
- the Director General, Factory Advice Service and Labour Institutes.

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

**85. The qualification and experience of persons handling hazardous substance and manner of providing necessary facilities for protecting the workers under clause (b) of Section 85.-**

(1) All persons who are required to supervise the handling of hazardous substances shall possess the following qualifications and experience;

- i. A degree in Chemistry or Diploma in Chemical Engineering or Technology with 5 years experience; or

- ii. A Master's Degree in Chemistry or a Degree in Chemical Engineering or Technology with 2 years experience.
- iii. The experience stipulated above shall be in process operation and maintenance in the Chemical Industry.
- iv. The Chief Inspector - Cum- Facilitator may require to undergo training in Health and Safety for supervision.

(2) The syllabus and duration of the above training and the organizations conducting the training shall be approved by the Directorate General of Factory Advice Service and Labour Institutes or the appropriate Government in accordance with the guidelines issued by the DGFASLI.

**86. The manner of providing for medical examination of a worker under sub-clause (b) of clause (c) of Section 85,**

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

- (i) Once before employment, to ascertain physical fitness of the person to do the particular job;
- (ii) Once in a period of 6 months, to ascertain the health status of all the workers in respect of occupational health hazards to which they are exposed and in cases where in the opinion of the Factory Medical Officer it is necessary to do so at a shorter interval in respect of any workers.
- (iii) The details of pre-employment and periodical medical examination carried out as aforesaid shall be recorded in the Health Register in the **Form-XXIII**.

(2) No person shall be employed for the first time without a certificate of fitness in **Form-XXIV** granted by the Factory Medical Officer. If the Factory Medical Officer declares a person unfit for being employed in any process covered under sub-rule (1), such a person shall have the right to appeal to the Inspector who shall refer the matter to the Certifying Surgeon whose opinion shall be final in this regard. If the Inspector is also a Certifying Surgeon, he may dispose of the application himself.

(3) Any findings of the Factory Medical Officer revealing any abnormality or unsuitability of any person employed in the process shall immediately be reported to the Certifying Surgeon who 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 alternate placement unless he is in the opinion of the Certifying Surgeon, fully incapacitated in which case the worker affected shall be suitably rehabilitated.

(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 ascertaining his health status. The opinion of the Certifying Surgeon in such a case shall be final. The fee required for this medical examination shall be paid by the occupier.

(5) The worker taken away from employment in any process under sub-rule (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.

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

**87. The measures or standards under sub-section (1) of Section 86.-**

(1) **Occupational Health Centres:** In respect of any factory carrying on 'hazardous process', there shall be provided and maintained in good order an Occupational Health Centre with the services and facilities as per scale laid down here under:

(i) For factories employing upto 50 workers-

(a) The services of a Factory Medical Officer on retainer-ship basis, in his clinic to be notified by the occupier. He will carry out the pre-employment and periodical medical examination as stipulated in rule 64 and render medical assistance during any emergency.

(b) A minimum of 5 persons trained in first-aid procedures amongst whom at least one shall always be available during the working period;

(c) A fully equipped first-aid box.

(ii) For factories employing 51 to 200 workers-

(a) An occupational Health Centre having a room with a minimum floor area of 15 sq. m with floors

and walls made of smooth and impervious surface and with adequate illumination and ventilation as well as equipment as per the Schedule-D.

(b) A part-time Factory Medical Officer shall be in overall charge of the Centre who shall visit the factory at least twice in a week and whose services shall be readily available during medical emergencies;

(c) One qualified and trained dresser-cum-compounder on duty throughout the working period;

(d) A fully equipped first aid box in all the departments;

(iii) For Factories employing above 200 workers;

(a) One full-time Factory Medical Officer for factories employing upto 500 workers and one more Medical Officer for every additional 1000 workers or part thereof;

(b) An Occupational Health Centre having at least 2 rooms each with a minimum floor area of 15 sq. meter with floors and walls made of smooth and impervious surface and adequate illumination and ventilation as well as equipment as per the Schedule-D.

(c) There shall be one nurse, one dresser-cum-compounder and one sweeper-cum-ward boy throughout the working period;

(d) The Occupational Health Centre shall be suitably equipped to manage medical emergencies.

(2) The Factory Medical Officer required to be appointed under clause (a) shall have qualifications included in Schedule to the Indian Medical Degrees Act of 1916 or in the Schedules to the Indian Medical Council Act, 1956 and possess a Certificate of Training in Industrial Health of minimum three months duration recognised by the State Government;

Provided that –

(i) A person possessing a Diploma in Industrial Health or equivalent shall not be required to possess the certificate of training as aforesaid;

(ii) The Chief Inspector-cum-Facilitator may, subject to such conditions as he may specify, grant exemption from the requirement of this sub-rule, if in his opinion a suitable person possessing the necessary qualification is not available for appointment;

(iii) In case of a person who has been working as a Factory Medical Officer for a period of not less than 3 years on the date of commencement of this rule, the Chief Inspector-cum-Facilitator 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.

(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 Service and Labour Institutes or the State Government in accordance with the guidelines issued by the DGFASLI.

(4) Within one month of the appointment of a Factory Medical Officer, the occupier of the Factory shall furnish to the Chief Inspector-cum-Facilitator the following particulars:

(i) Name and address of the Factory Medical Officer;

(ii) Qualifications

(iii) Experience, if any, and

(iv) The sub-rule under which appointed.

#### **88. Ambulance Van:**

(1) In any factory carrying on 'hazardous process', there shall be provided and maintained in good condition, a suitably constructed ambulance van equipped with items as per sub-rule (5) and manned by a full time Driver-cum-Mechanic and a Helper trained in first aid, for the purposes of transportation of serious cases of accidents or sickness. The ambulance van shall not be used for any purpose other than the purpose stipulated herein and will normally be stationed at or near to the Occupational Health Centre.

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

(ii) The Ambulance should have the following equipment:

##### **a. General**

- A wheeled stretcher with folding and adjusting devices; with the head of the stretcher capable of being tilted 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 lights; -Fire extinguisher dry power type;
- Insulated gauntlets

**c. Emergency Care Equipment Resuscitation**

- Portable suction unit; Portable oxygen units;
- Bag-valve-mask, hand operated artificial ventilation unit;
- Airways; -Mouth gags; - Tracheostomy adapters;
- Short spine board; I.V. Fluids with administration unit;
- B.P. Manometer (Sphygmomanometer); - Cunn;-Stethoscope

**d. Immobilization**

- Long and short padded boards; - Wire ladder splints;
- Triangular bandage; - Long and short spine boards

**e. Dressings**

- Gauze pads – 4" x 4"; - Universal dressing 10" x36";
- Roll of aluminum foils; -Soft roller bandages 6" x 5 yards; -Adhesive tape in 3" roll; -Safety pins;
- Bandage sheets; -Burn sheet.

**f. Poisoning**

- Syrup of Ipecac; - Activated Charcoal Pre packeted in dozens; - Snake bite kit, Drinking water

**g. Emergency Medicines**

- As per requirement (under the advice of Medical Officer only)

**89. Decontamination facilities:** In every factory, carrying out 'hazardous process', the following provisions shall be made to meet emergency:

- i. fully equipped first aid box;
- ii. readily accessible means of water for washing by workers as well as for drenching the 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:

**TABLE**

| <u>Sl. No.</u> | <u>No. of persons employed at any time</u> | <u>No. of drenching showers</u>                |
|----------------|--|--|
| (i)            | Upto 50 workers                            | 2  |
| (ii)           | Between 51 to 200 workers                  | 2+ 1 for every additional 50 or part thereof   |
| (iii)          | Between 201 to 500 workers                 | 5 + 1 for every additional 100 or part thereof |
| (iv)           | 501 workers and above                      | 8 + 1 for every additional 200 or part thereof |

iii. a sufficient number of eye wash bottles filled with distilled water or suitable liquid, kept in boxes or cupboards conveniently situated and clearly indicated by a distinctive sign which shall be visible at all times.

**90. Issue of Guidelines:**

For the purpose of compliance with the requirements under sub-sections (1), (4) and (7) of Section 84 or Section 85 of the Code, the Chief Inspector-cum-Facilitator may, if deem necessary, issue guidelines from time to time to the occupiers of factories carrying on 'hazardous process'. Such guidelines may be based on National Standards, Codes of Practice, or recommendations of International Bodies such as ILO and WHO.

**91. The value of the maximum permissible limit of exposure of chemical and toxic substances in manufacturing process in any factory under Section 88.**

The maximum permissible threshold limits of exposure of chemical and toxic substances in manufacturing processes (whether hazardous or otherwise) in any factory shall be of the value indicated in the Schedule-E.

**92. The appellate authority for appeal against the order of Inspector-Cum-Facilitator of factory and the manner of appeal under Section 90**

(1) An appeal presented under Section 90 shall lie with the Chief Inspector-Cum-Facilitator in cases where

the order appealed against is an order passed by that officer, with the appropriate Government or with such authority as the appropriate Government may appoint in this behalf and shall be in the form of a memorandum setting forth concisely the grounds of objection to the order and bearing court-fees stamp in accordance with Article 11 of Schedule II to the Court-fees Act, 1870, and shall be accompanied by a copy of the order appealed against.

(2) On receipt of the memorandum of appeal, the appellate authority shall, 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 sub-rule (3) to be representative of the industry concerned, to appoint an assessor within a period of 14 days. If an assessor is nominated by such body, the appellate authority shall appoint a second assessor itself. It shall then fix a date for the hearing of the appeal and shall give due notice of such date to the appellant and to the Inspector - Cum- Facilitator whose order is appealed against, and shall call upon the two assessors to appear upon such date to assist in the hearing of the appeal.

(3) The appellant shall state in the memorandum presented under sub-rule (1) whether he is a member of one or more of the following bodies. The body empowered to appoint the assessor shall-

- i. if the appellant is a member of one of such bodies, be that body;
- ii. if he is a member of two such bodies, be the body which the appellant desired should appoint such assessor; and
- iii. if the appellant is not a member of any of the aforesaid bodies or if he does not state in the memorandum which of such bodies he desires should appoint the assessor, be the body which the appellant authority considers as the best fitted to represent the industry concerned.

(4) An assessor appointed in accordance with the provisions of sub-rules 2 and 3 shall receive, for the bearing of the appeal, a fee to be fixed by the appellate authority, subject to a maximum of Rs. 1000 per diem. He shall also receive the actual travelling expenses. The fees and travelling expenses shall be paid to the assessors by appropriate Government, but where assessors have been appointed at the request of the appellant and the appeal has been decided wholly or partly against him the appellate authority may direct that the fees and travelling expenses of the assessors shall be paid in whole or in part by the appellant.

**93. Persons defined to hold positions of supervision or management under clause (a) of sub-section (1) of Section 91.**

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

- i) all persons specified in the Schedule-E; and
- ii) any other person who, in the opinion of the Inspector - Cum- Facilitator, holds a position of supervision or management as given in Schedule-G.

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

**94. Exemptions under clause (b) of sub-section (1) of Section 91.**

Adult workers engaged in factories specified in column 2 of the Schedule-G on the work specified in column 3 of the said schedule shall be exempted from the provisions of the sections specified in the column 4 subject to the conditions, if any, specified in column 5 of the said schedule.

### CHAPTER-XIII PLANTATION

**95. Facilities for workers in Plantation under Section 92.**

(1) Every employer shall provide for every worker and his family residing in a plantation, rent free housing accommodation as near as possible to the place of work. It shall be open to an employer to provide such accommodation in the course of several years provided that houses shall be built at the rate of at least five per cent of the resident workers every year.

(2) All housing accommodation for workers in a plantation shall conform to such standards and specifications as may be approved by the State Government on the recommendation of the Advisory Board.

(3) The housing accommodation shall be provided on dry well-drained land which being consistent with the requirements regarding distance from the plantation, has supplies of wholesome drinking water within a reasonable distance. In malarial tracts the houses shall be provided at a safe distance from the swamps and marshes and above the highest flood level.

(4) Adequate lighting arrangements shall be provided in and around the area in which housing accommodation is provided.

(5) The employer shall maintain in good condition the approach roads and paths to the area where houses are located as also the sewers and drains in that area.

(6) The employer shall not deny to the public free access to those parts of the plantation where the workers are housed.

(7) The employer shall cause the vicinity of all houses to be kept clear of refuse and excreta and the latrines and drains to be cleaned out daily and all refuse in or near them to be collected, removed and disposed of hygienically.

**96. (1) Housing Scheme-** Within six months of the date of publication of these rules, every employer shall submit to the Labour Commissioner, Tripura for approval, a scheme in regard to the provision by him, of housing accommodation for workers. The scheme shall provide for the following matters:

(a) Specification of the period during which housing accommodation is proposed to be provided in respect of all resident workers in a plantation, such period being not later than the period referred to in Rule 9.

(b) The type design which is proposed to be adopted for the construction of houses, such design being in conformity with the standards and specification as may be approved by the State Government.

(c) Plan and site-plan, in duplicate, of the buildings to be constructed or remodelled for use as workers' houses.

(d) All houses shall be built in accordance with the scheme as approved in writing by the Labour Commissioner. With a view to showing the progress made in providing houses according to the approved scheme every employer shall submit a report within 31<sup>st</sup> of July of every year to the appropriate authority.

**(2) Maintenance of houses-**

(i) The employer shall, at his own expense, execute such repairs to the houses as may be required from time to time and maintain the houses in fit and safe condition for occupation.

(ii) A worker occupying a house may, and an Inspector-cum-Facilitator appointed under the code shall bring to the notice of the employer any defect in the condition of a house which made it dangerous to the health and safety of the workers. Where an Inspector cum facilitator so brings such defects to notice, it shall be the duty of the employer to rectify them with the least possible delay.

(iii) The employer shall get all the houses lime-washed at least once in every year and all the doors, windows and other wooden structure varnished or painted once in three years. A record of dates on which lime-washing or painting was carried out shall be maintained in a register.

**(3) Allotment and occupation of houses-**

(1) Houses shall be allotted on the basis of one house for a worker having a family for the use of the worker and his family:

Provided that if there are two or more workers in a family only one house shall be allotted in respect of any such family in the name of any worker in the family: Provided further that in case, of termination of services of a worker in whose name a house is allotted under the preceding proviso, the house shall be allotted in the name of any other member of his family who is also a worker.

(2) The employer may allot houses to workers not having families at the rate of one house for not more than four such workers.

(3) The occupant of a house shall not make any unauthorised additions or alterations in the house.

(4) The occupant of a house shall not exchange the house with the occupant of another house except with the written permission of the employer.

(5) The occupant shall not let the house or any portion thereof to any person.

(6) All workers and members of their families occupying the houses shall use the latrines provided and shall not pollute the soil and shall keep the houses and the precincts thereof clean and tidy and shall not waste drinking water.

(7) No cattle or goats shall be kept in the living rooms or verandahs and no windows or air spaces shall be blocked up.

(8) The employer shall bring to the notice of each worker to whom housing accommodation has been provided the conditions governing the occupation of such accommodation in writing in a local language in which the later can understand.

**97. Occupation of accommodation after termination of employment-**

When a worker dies in the service of the employer or retires or goes on transfer, or resigns, or goes on leave or when his services are terminated, he or his family may retain the house up to the period as detailed

below—

- (a) In the case of death, transfer or termination of service, for a period not exceeding two months;
- (b) In the case of retirement or resignation, for a period not exceeding one month;
- (c) In the case of leave, for the period of leave; and
- (d) In the case where discharge or dismissal of a worker results in an industrial dispute, for so long as the case is not finally disposed of.

**98. Drinking Water-**

(1) An adequate supply of drinking water shall be made available in every plantation at every site, at all times during working hours.

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

(3) Where drinking water is supplied from such well or reservoir, the water in it shall be sterilized periodically as required by the Inspector cum facilitator by written order, 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 before it is supplied for consumption.

(4) The Inspector-cum-facilitator may, by order in writing, direct the employer to obtain at such time or at such intervals as he may direct, a report from the qualified medical practitioner or the Certifying Surgeon, if the former is not available, as to the fitness for human consumption of the water supplied to workers and in every case to submit to the Inspector-cum-facilitator a copy of such report as soon as it is received from the qualified medical practitioner or Certifying Surgeon.

Drinking water shall be supplied at work sites at conveniently accessible points through panwalas or hy tankers, etc.

**99. Latrine accommodation-**

(1) Latrine accommodation shall be provided in every plantation on the scale of one latrine for every fifty acres of the area under cultivation or part thereof: Provided that there shall be at least one latrine each for either sex.

(2) The latrine shall be conveniently situated and shall have exclusive access for either sex.

(3) The walls, ceilings and partitions of every latrine and urinal shall be white-washed and colour-washed and the white-washing or colour-washing shall be repeated at least once in every period of four months.

(4) The latrine should conform to public health requirements and latrines other than those connected with an efficient water-borne sewage system, shall comply with the requirements of the Public Health authorities.

(5) Every latrine shall be under cover and so partitioned off as to secure privacy and shall have a proper door and tenings.

(6) Where workers of both sexes are employed, there shall be displayed outside each latrine or latrine block, a notice in Hindi and also in the language understood by the majority of workers —For Men Only or —For Women only as the case may be. The notice shall also bear the figure of a man or of a woman as the case may be.

(7) Where piped water supply is available, a sufficient number of water taps, conveniently accessible shall be provided in or near such latrine accommodation.

Provided that if piped water supply is not available, sufficient quantity of water shall be kept stored in suitable receptacles near the latrines.

**100. Urinal accommodation:**

(1) Urinal accommodation shall be provided on the scale of one urinal for every 50 acres of the area under cultivation or part thereof. The urinals shall be conveniently situated for both males and females and shall have exclusive for either sex.

(2) Urinals should conform to public health requirements, urinals other than those connected with an efficient water-borne sewage system shall comply with the requirements of the Public Health authorities.

**101. Construction and maintenance of drains:**

All drains carrying waste or sullage water shall be constructed in masonry or other impermeable materials 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 qualified medical practitioner.

**102. Creches:**

(1) In every plantation wherein fifty or more women workers are employed or were employed on any day of the preceding twelve months, the employer shall provide and maintain a creche or creches for the use of their children who are below the age of six years according to the standards laid down in these rules.

(2) Every creche shall be conveniently accessible to the mothers of the children accommodated therein.

(3) There shall be not less than 15 square feet of floor area for each child to be accommodated in a creche.

(4) The building in which the creche is situated shall be of sound construction with a good plinth.

(5) The plan of the creche building shall be in accordance with the standard plan or plans laid down by the Inspector cum facilitator:

Provided that where no standard plan has been laid down or where it is proposed to deviate from a standard plan, the Chief Inspector-cum-Facilitator's approval shall be obtained.

(6) The creche shall be furnished with suitable furniture and a cradle for each child below the age of two.

(7) A suitably fenced and shady open-air playground shall be provided for the older children.

(8) The employer shall appoint—

(a) a woman as Creche-in-Charge to look after the children during the absence of their mothers, who shall possess such qualifications and training as may be approved by the State Government; and

(b) such other staff on a scale approved by the said authority.

(9) There shall be in or adjoining the creche a suitable wash-room and toilet

(10) At least half a pint of clean pure milk if possible, otherwise powdered milk approved by the Certifying Surgeon shall be made available for each child for each day it is accommodated in the creche and the mother of such child shall be allowed in the course of her daily work two intervals of sufficient time to visit the creche and feed the child. For children above two years of age there shall be provided in addition an adequate supply of wholesome refreshment.

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

(12) Adequate supply of clean clothes, soap and oil shall be made available for each child while it is in the creche.

(13) Subject to provisions of sub-rule (1) to sub-rule (13) a group of employers may jointly provide and maintain creche and share its expenses.

**103. Educational facilities for workers' children:**

(1) Every employer shall, if the number of workers' children between the ages of 6 and 12 in his plantation exceeds 25, provide and maintain a primary school or schools for imparting primary education to the children: Provided that an employer may not provide and maintain a primary school if there is one under the direct management of the State Government or of any local body for imparting free education to the children up to the primary or higher standard, with enough seats to admit the children between the ages of six and twelve of the workers in his plantation and within a distance of one mile from the place where workers reside in his plantation, or if under any other law he is required to pay a cess or tax for primary education.

Provided further that subject to the provisions of sub-rule (1) of Rule 81, a group of employers may jointly provide and maintain a primary school and share its expenses.

(2) Every school to be provided and maintained under sub-rule (1) of Rule 81 shall be conveniently situated and within a distance of one mile from the workers' quarters.

(3) The school building shall be constructed in accordance with the standard plan or plans which may be laid down by the State Government:

Provided that where there is no standard plan or where it is proposed to deviate from a standard plan, the State Government's approval of the plan of the school building shall be obtained.

(4) Where adequate space is available, an open-air playground with suitable accessories shall also be provided for the children attending the school.

(5) The employer or employers as the case may be shall provide for every primary school maintained under sub-rule (1) of Rule 81 such educational and other equipment as may be considered necessary by the State Government.

(6) The employer or employers concerned shall appoint one teacher for every forty children attending

the primary school. The teacher shall possess the qualifications prescribed by the State Government for teachers in Government primary schools: Provided that in the case of any person who is working as a school teacher in a plantation at the commencement of these rules, the State Government may, subject to such conditions as it may specify, relax any of the qualifications.

(7) The curriculum, duration, standard and syllabus of the course of instruction to be imparted in the primary school shall be such as may be approved by the State Government.

(8) No fees shall be charged from the workers' children attending the primary school.

**104. Health facilities:**

The plantation workers shall be provided with adequate medical facilities as notified by the State Government in consultation with the Department of Health and Family Welfare from time to time.

**105. Recreation Facilities:**

(1) Every employer shall provide and maintain—

(a) a recreation centre(s) for workers with provision for indoor games suitable for adult and child workers;

(b) where adequate flat open space is available within a reasonable distance, a playground or playgrounds for adult and child workers with necessary sports equipment for outdoor games:

Provided that subject to the provisions of code and Rules a group of employers may with the approval of the Chief Inspector-cum-Facilitator, provide and maintain joint recreation centre(s) and playgrounds and share their expenses.

(2) Every recreation centre to be provided and maintained under the Rule shall be conveniently situated as near as possible to the workers' quarters.

**106. Use and handling of hazardous Chemicals, Insecticides, pesticides and toxic substances in the plantation under Section 93.**

(1) **Eligibility for employment in spraying works:** No person who has not attained 18 years of age and no women shall be employed or permitted to be employed in use, handling, spraying, storage and transport of insecticides, chemicals and toxic substances in the Plantations.

(2) The employers of a Plantation shall appoint at least one person designated as Chemical Supervisor and having minimum qualification of Higher Secondary (pass) with Chemistry as one of the subjects and duly trained in handling, use and storage of insecticides, chemicals and toxic substances with additional qualification on first aid measures to supervise the safe & proper use of such substances in the plantations

(3) Every employer shall ensure that every worker in the plantation employed for handling mixing, blending and applying insecticides, chemicals and toxic substances is trained thoroughly about the possible hazards involved in the operation in which he is engaged, the various safety measures and safe work practices to be adopted in emergencies arising from spillage of such insecticides, chemicals and toxic substances which may lead to contamination of lungs, skin, eyes, and other parts of the body through inhalation, swallowing etc. The employers shall also ensure through repeated periodic instructions for safety measures and safe working practices in words, related to use, handling, mixing, blending, storage and applying of such substances.

**(4) Medical examination:**

(a) Every person who is to be engaged in connection with the works of use, handling, spraying, storage and transportation of insecticides, chemicals and toxic substances, shall get examined by a Registered Medical Practitioner before his engagement and within 15 days, by a Medical Officer under the code. Such medical examination shall include appropriate tests that are necessary for assessment of his health status,

(b) There shall be compulsory medical check-up of each worker engaged for the purpose at an interval of not more than 120 days by a Medical Officer appointed under this rule.

(5) (a) Every employer shall ensure that every worker in the plantation employed for handling, mixing, blending and applying insecticides, chemicals and toxic substances is trained thoroughly about the possible hazards involved in the operation in which he is engaged, the various safety measures and safe work practices to be adopted in emergencies arising from spillage of such insecticides, chemicals and toxic substances which may lead to contamination of lungs, skin, eyes, and other parts of the body through inhalation, swallowing etc. The employers shall also ensure through repeated periodic instructions for safety measures and safe working practices in words, related to use, handling, mixing, blending, storage and applying of such substances.

(b) Any worker showing symptom of poisoning shall immediately be examined and given proper medical treatment.

(c) The employer shall report immediately to the Medical Officer declared under the code, of any accident

caused due to use, handling, mixing, blending, storage and transportation of such substances.

(d) **First Aid measures:** In all cases of poisoning; first-aid treatment shall always be given before the physician is called. The Indian Standard Guide for handling cases of pesticide poisoning Part 1, First Aid Measure [I.S.4015 (Part-1)- 1967] shall be consulted for such first-aid treatment in addition to any other books on the subject. The workers shall also be educated in periodic manner as deems fit, on the effects on poisoning and the first aid treatment to be given.

(e) **Provision of change of batch used in spraying:** Workers engaged in spraying work shall be changed and replaced by other batches of workers after they have worked continuously for a period of three months.

(6) Every employer shall maintain health records of every worker who is exposed to insecticides, chemicals and toxic substances in Form-XXIII and every affected worker shall have access to such records with precautions. The record shall also be presented before Certifying Surgeon notified under the Plantations Labour Act, 1951 as well as before the Labour Officer of the area. The same also be presented before any Inspector declared under the Act having jurisdiction over the area where the Plantation is located. If asked for either orally or in writing on his visit to the Plantation or within 3 months at his office, whichever is earlier.

**(7) Washing Facilities and Cloak Room:**

The washing, bathing and cloakroom facilities, shall be provided in the following manner-These shall be provided and maintained in a cleanly state and in good condition for the use of all persons employed:

(a) a through with a smooth impervious surface fitted with a waste pipe with 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 water from taps or jets above the through at intervals of not more than two feet; or

(b) at least one wash basin for every ten such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material and clean towels changed daily;

(c) suitable accommodation for clothing not worn during working hours with adequate arrangement for drying the clothing if wet. The accommodation so provided shall be placed under charge of a responsible person.

(d) No food, drink or eatables including pan, supari or tobacco shall be brought into or consumed by any worker either at the work place or at the washrooms.

**(8) Protective Clothing and equipment:**

(i) Every worker handling insecticide during transport or application shall be adequately protected with appropriate clothing.

(ii) The protective clothing shall be used wherever necessary in conjunction with appropriate respiratory devices for preventing inhalation of toxic dusts, vapours or gases.

(iii) No worker shall be allowed to dilute chemical solutions to be used for spraying nor allowed to spray without using gauntlets, dust-proof hats, hood, goggles, knee-length polythene apron, rubber gloves, rubber boots (gum boots) with socks, nose mask or bleached kerchief to cover nose and mouth.

(iv) Lenses of goggles shall be of good quality.

(v) Rubber or rag-pad shall be used on the back to minimize, the jerking of spraying machine.

(vi) Every worker engaged in spraying shall be provided with a bar of washing soap every fortnight.

(vii) The equipment used for spraying as well as protective clothing and other equipments shall be maintained properly and replaced immediately whenever necessary.

(9) **Precautionary Notice:** Every employer shall exhibit precautionary notices indicating the hazards of insecticides, chemicals and toxic substances in the vicinity of the work place, printed/typed in the language of the majority of the workers and shall be affixed in prominent places where it could be easily seen and conveniently read by the workers.

**10. Disposal of used packages surplus materials and washings of insecticides:**

(1) It shall be the duty of the Employers and Operators to dispose packages or surplus materials and washings of insecticides, chemicals and other toxic substances in a safe manner so as to prevent environmental or water pollution.

(2) The used packages shall not be left outside to prevent their re-use.

(3) The packages shall be broken and buried away from human habitation.

**CHAPTER-XIV  
Offences and Penalties**

**107. Manner of holding enquiry under sub-section (3) of Section 111–**

The State Government may by notification in the official gazette, appoint any gazetted officer not below the rank of Labour Officer having jurisdiction for holding enquiry and imposing penalty in such manner as may be prescribed by the Central Government under this section.

**108. Form and manner of preferring appeal and the fee to accompany such appeal under sub-section (3) of Section 111–**

(1) The employer aggrieved by the order of Enquiry Officer, may appeal against such order before the appellate officer appointed by the State Government for such purpose within thirty days from the date of receipt by him of such order, electronically or otherwise along with fee at the rate of 25% of penalty imposed to be deposited in the official account of the Appellate Authority electronically or otherwise.

(2) Where the memorandum of appeal is in order, the appellate authority shall admit the appeal, acknowledge it and intimate admission of such appeal, and shall register the appeal in electronic form to be kept for the purpose called the register of appeals.

(3) When the appeal has been admitted, the appellate authority shall send the notice of the appeal to the enquiry officer, against whose order the appeal has been preferred and the enquiry officer shall thereupon send the records of the case to the appellate authority online electronically or otherwise.

(4) On receipt of the appeal, the appellate authority shall send a notice to the appellant to appear before him on such date and time as may be specified in the notice for the hearing of the appeal electronically or by registered post.

(5) If on the date fixed for hearing, the appellant does not appear, the appellate authority may dismiss the appeal for default of appearance of the appellants by sending the copy of the order to the applicant electronically or otherwise.

(6) Where an appeal has been dismissed, the appellant may apply electronically to the appellate authority for the restoration of the appeal within thirty days from the date of receipt of the order and if the appellate authority is satisfied that the appellant was prevented by sufficient cause from appearing, the appellate authority shall restore the appeal subject to costs at the discretion of the authority.

(7) The order of the Appellate Authority shall be communicated electronically or by registered post to the appellant and copy thereof shall be sent to the registering officer against whose order the appeal has been preferred and shall be disposed of within a period of thirty days from the date of receipt of appeal.

**109. Manner of compounding under sub-section (1) of Section 114–**

(1) The officer notified by the State Government for the purposes of compounding of offences under sub-section (1) of Section 114 shall issue electronically or otherwise, a compounding notice for the offences which are compoundable under sub-section (1) of Section 114.

(2) The accused person if intent to compound the offence alleged against him under sub-section (3) of section 12 or section 94 or section 96 or sub-section (1) of section 97 or section 99 or section 106 or any offence under sub-section (2) of section 97 or sub-section (1) of section 100 or section 101 or clause (b) of sub-section (1) of section 103 or section 105 or sub-section (2) of section 113 may submit an application in Form-XXVI to the officer notified by the Government for the purpose of compounding of offences under sub-section (1) of section 114 (herein after referred to as the compounding officer).

(3) If prosecution is pending before the Judicial First-Class Magistrate Court under sub-section (3) of section 110 or officer appointed under sub-section (1) of section 111 of the code, the compounding officer shall send an intimation of the receipt of application for composition to the court concerned or the officer.

(4) The person so noticed may apply to the officer electronically or otherwise and deposit the entire compounding amount electronically or otherwise, within thirty days of the receipt of the notice.

(5) The Compounding Officer shall issue a composition certificate within twenty days of receipt of the composition amount, to such person from whom such amount has been received in satisfaction of the composition notice.

(6) If a person so noticed fails to deposit the composition amount within one month from the notice of prosecution, the prosecution shall be proceeded with before the competent Court.

(7) No prosecution shall be instituted without giving an opportunity to the employer to comply with such provisions subjected to proviso of sub-section (1) of Section 110 and compounding as under Section 114.

(8) The amount of composition/compounding received and credited shall be recorded in a register to be maintained electronically in Form-XIX.

**CHAPTER–XV**

**Social Security Fund**

**110. Other sources of fund under sub-section (2) of Section 115-**

The State Government may by notification make separate rules for generating other sources of Tripura Social Security Fund as under:

- (1) The Registration/ Renewal fees collected from the establishments under this code and any other labour law enacted by the state legislature.
- (2) The unclaimed amount presently lying in the official accounts of the Labour Department under Payment of Wages Act, 1936, Payment of Gratuity Act, 1972, Minimum Wages Act, 1948, Payment of Bonus Act, 1965 and Employees Compensation Act, 1923.
- (3) The unclaimed Security amount under Contract Labour (Regulation & Abolition) Act, 1970, Inter-State Migrant Workmen (RTE&CS) Act, 1979.
- (4) Any other resources as the State Government may decide at any point of time.

**111. The manner of administering and expending the Fund under sub-section (3) of Section 115-**

The State Government in consultation with Tripura Unorganized Workers Welfare Board may take steps required for the manner of administering the expenditure of the fund.

**CHAPTER-XVI  
Miscellaneous**

**112. The form of application, manner of filing the application and the fee to be accompanied there with including the information relating to the employment of Inter-State migrant workers under sub-section (2) of Section 119-**

- (1) Application for single license shall be submitted electronically or otherwise to the authority notified in this behalf under sub-section (1) of Section 119 of this code.
- (2) License issued under this rule shall be valid for five years.
- (3) Copy or copies of the license so issued shall be sent to the district officers of the Labour Department in whose jurisdiction, the contract worker works for which licence is issued, talis.

**113. Actions, manner of taking actions and inquiry under sub-section (3) of Section 119-**

Where the Authority referred to in sub-section (3) of Section 119 is satisfied that the common licence may be issued in respect of factory, industrial premises and for construction establishment engaging contract worker or any combination thereof, a single license for any one of them under these rules shall be issued in **Form-XIV** electronically or otherwise within 45 days of the receipt of the said application. In case the Authority rejects the registration application, he shall assign the reasons for such rejection and communicate to the party within the above-mentioned period electronically or otherwise as the case may be.

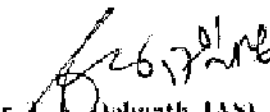
**114. The form of appeal, the fee to be accompanied there with and the appellate authority under sub-section (6) of Section 119-**

Any person aggrieved by an order passed under this section by the Authority referred to in rule 73 shall prefer an appeal before the Labour Commissioner.

The Application for the appeal shall be accompanied with the rejection order of the Registering Authority and fee receipt of Rs. 1000/- to be deposited in the official account of the Appellate Authority.

**115. The manner of survey under sub-section (2) of Section 121-**

The committee as referred under sub section (2) of Section 121 shall be nominated and approved by the State Government.

  
(Dr. T. K. Debnath, IAS)  
Secretary to the  
Government of Tripura

**Schedule-A**  
(See sub-rule (3) of Rule 8)

| Sl. No: | Area/Field for which competency is required | Qualification Required  | Experience for the Purpose  | Facilities at his command  |
|---------|---|---|---|--|
| (1)     | (2)   | (3)   | (4)   | (5)  |
| 1       | Stability of Buildings                      | Degree in Civil or Structural Engineering or equivalent or above                                    | (i) A minimum of 07 years of experience of design or construction or testing and repairs of structures<br>(ii) Knowledge of non-destructive testing, various & current codes of practice and the effect of vibrations and natural forces on the stability of the building and<br>(iii) Ability to arrive at a reliable conclusion with regard to the safety of the structure of the building  |  |
| 2       | Dangerous Machines                          | Degree in Electrical or Mechanical or Textile Engineering or its equivalent qualifications or above | (i) A Minimum of 07 years of experience in:<br>(a) design or operation and maintenance or<br>(b) testing, examination and inspection of relevant machinery, their guards, safety devices and appliances<br>(ii) He shall:<br>(a) be conversant with safety devices and their proper functioning<br>(b) be able to identify defects and any other cause leading to failure<br>(c) and ability to arrive at a reliable conclusion with regard to the proper function of safety device and appliance and machine guard | Gauges for measurement, instruments for measuring speed and any other equipment or device to determine the safety in the use of dangerous machines   |
| 3       | Lifts and Hoists                            | Degree in Electrical or Mechanical Engineering or its equivalent or above                           | 07 years of experience in (a) design or operation or maintenance of lifts and hoists. He shall be conversant with<br>(a) testing, examination and inspection of lifts and hoists and conversant with current codes and other statutory requirements and such procedures<br>(b) able to identify defects and arrive at a reliable conclusion with regards to the safety of hoists and lifts  | Facilities for load testing, tensile testing, gauges. Other equipments for measurement and for determining the safe working conditions of hoists and lifts   |
| 4       | Lifting Machinery and Lifting Tackles       | Degree in Electrical/Mechanical/Metallurgical Engineering or its equivalent or above                | (i) A minimum experience of 07 years in: (a) design or erection or operation/maintenance<br>(b) testing, examination and inspection of lifting machinery, chains, ropes, lifting tackles<br>(ii) He shall be (a) conversant with current relevant codes of practices and test procedures (b) conversant with fracture mechanics and metallurgy of the material of construction (c) conversant with heat treatment/stress relieving techniques (d) able to   | Facilities for load testing, tensile testing, heat treatment, equipments for measurement, gauges and such other equipments to determine the safe working conditions of lifting machinery and lifting tackles |

|   |  |  |  |  |
|---|--|--|--|--|
|   |  |  | to identify defects and arrive at a reliable conclusion with regards to the safety such equipments.  |  |
| 5 | Pressure Plant   | Degree in Chemical or Mechanical or Electrical or Metallurgical Engineering or its equivalent or above | <p>(i) A minimum experience of 07 years in: (a) design or erection or maintenance of the same (b) testing, examination and inspection of pressure plants</p> <p>(ii) He shall be (a) conversant with relevant codes of practices, statutory requirements and test procedures relating to pressure vessels (b) conversant with non-destructive testing techniques of pressure vessels (c) able to identify defects and arrive at a reliable conclusion with regards to the safety of the pressure plant</p> | Facilities for carrying out hydraulic test, non-destructive test, gauge, equipment/gadgets for measurement and any other equipment or gauges to determine the safety in the use of pressure vessels  |
| 6 | Precautions against dangerous fumes  | Master's degree in Chemistry or degree in Chemical Engineering or their equivalent or above            | <p>(i) A minimum experience of 07 years in collection and analysis of environmental samples and calibration of monitoring equipment</p> <p>(ii) He shall be: (a) conversant with the hazardous properties of the chemicals and their permissible values (b) conversant with current techniques of sampling and analysis of environmental contaminants (c) able to arrive at a reliable conclusion as regard the safety in respect of entering and carrying out hot work</p>                                | Meters, instruments and devices duly calibrated for carrying out the tests and certification of safety in working in confined spaces   |
| 7 | Ventilation system as may be required for grinding or glazing of metals and processes incidental thereto<br>Cleaning or smoothening or roughening etc. of articles by a jets and, metal shot or grit<br>Other processes propelled by a blast of compressed air or steam<br>Handling and processing of asbestos<br>Manufacture of ray on by viscose process<br>Foundry operations | Degree in Chemical or Mechanical or Metallurgical Engineering or its equivalent or above               | <p>(i) A minimum experience of 07 years in design, fabrication, installation or testing of ventilation system and their equivalent systems used for extraction and collection for dusts, fumes, vapors and ancillary equipments.</p> <p>(ii) He shall be conversant with current relevant codes of practice and test procedures in respect of ventilation and extraction system for fumes and shall be able to arrive at a reliable conclusion as with regard to effectiveness of the system.</p>          | Facilities for testing of the ventilation systems, instruments and gauges for testing the effectiveness of the extraction systems for dusts, vapors, fumes. Other equipments needed for determining the efficiency and adequacy of these systems. He shall have assistance of suitable qualified technical persons who can come to a reasonable conclusion as to the adequacy of the system. |

**Schedule B**  
**(See Rules 81)**

**Schedules (B-I to B-XXVII) Specifying Requirements in Respect of Dangerous Processes and Operations notified in Rule 102 under Section 82 of The Occupational Safety, Health and Working Conditions Code, 2020.**

**Schedule B-I**

**Manufacture of aerated water and processes incidental thereto**

**(a) 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.

**(b) Face guards and gauntlets.** -

1. The occupier shall provide and maintain in good condition for the use of all persons engaged in filling bottles or syphons:-

a) suitable face guards to protect the face, neck and throat; and

b) suitable gauntlets for both arms to protect the whole hand and arms Provided that:

i. paragraph b(i) shall not apply where bottles are filled by means of an automatic machine so constructed that no fragment of a bursting bottle can escape.

ii. Where a machine is so constructed that only one arm of the bottler at work up to it is exposed to danger, a gauntlet need not be provided for the arm which is not exposed to danger.

2. The Occupier shall provide and maintain in good condition for the use of all persons engaged in corking, crowning, screwing, wiring, foiling, capsuling, sighting or labelling bottles or syphons-

a) suitable face-guards to protect the face, neck and throat; and

b) suitable gauntlets for both arms to protect the arm and at least half of the palm and the space between the thumb and fore finger.

**(c) Wearing of face guards and gauntlets.** - All persons engaged in any of the processes specified in paragraph b of this schedule shall, while at work in such processes, wear the face guards and gauntlets provided under the provisions of the said paragraph.

**Prohibition relating to women and young persons.** - No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

**Schedule B-II**

**Electrolytic plating or oxidation of metal articles by use of an electrolyte containing acids, bases or salts of metals such as chromium, nickel, cadmium, zinc, copper, silver or gold.**

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

a) "electrolytic process" means the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing acids, bases or salts of metals such as chromium, nickel, cadmium, zinc, copper, silver, gold, etc.

b) "bath" means any vessel used for an electrolytic process or for any subsequent process; and

c) "Employed" means employed in any process involving contact with liquid from a bath.

2. **Exhaust draught:**

a) an efficient exhaust draught shall be applied to every vessel in which an electrolytic process is carried on.

b) The 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.

c) The exhaust draught appliance shall be so constructed, arranged and maintained as to prevent the vapour or spray entering into any room or place in which work is carried on.

3. **Prohibition relating to women and young persons** - No pregnant women or lactating mother, adolescent or child shall be employed or permitted to work at a bath.

4. **Floor of workrooms** - The floor of every workroom containing a bath shall be impervious to water. The floor shall be maintained in good and level condition and shall be washed down at least once a day.

5. **Protective devices** -

1. The occupier shall provide and maintain in good and clean condition the following articles of protective

devices for the use of all persons employed on any process at which they are liable to come in contact with liquid from a bath and such devices shall be worn by the persons concerned

- a) waterproof aprons and bibs; and
- b) for persons actually working at a bath, loose fitting rubber gloves and rubber boots or other water proof foot wear, and chemical goggles.

I. The occupier shall provide and maintain for the use of all persons employed suitable accommodation for the storage and drying of protective devices.

**6. Water facilities -**

I. There shall be provided and maintained in good repairs for the use of all persons employed in electrolytic process and processes incidental to it-

a) *a wash place under cover, with either-*

- i. a trough with a smooth impervious surface filled with a waste pipe, and of sufficient length to allow at least 60 cms. for every 5 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 cms, or
- ii. at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and having a constant supply of water laid on.

b) *a sufficient supply of clean towels renewed daily, and soap or other suitable cleaning material.*

II. In addition to the facility in sub-paragraph 1, an approved type emergency shower with eye fountain shall be provided and maintained in good working order. Whenever necessary, in order to ensure continuous water supply, storage tank of 1500 litres capacity shall be provided as a source of clean water for emergency use.

7. **Cautionary placard** - A cautionary placard in the form specified below and printed in the language of the majority of the workers employed shall be affixed in a prominent place in the factory where it can be easily and conveniently read by the workers.

**CAUTIONARY NOTICE**

**Electrolytic Plating**

1. Chemicals handled in this plant are corrosive and poisonous.
2. Smoking, chewing tobacco, eating food or drinking, in this area is prohibited. No food stuff or drink shall be brought in this area.
3. Some of these chemicals may be absorbed through the skin and may cause poisoning.
4. A good wash shall be taken before meals.
5. Protective devices supplied shall be used while working in this area.
6. Spillage of the chemicals on any part of the body or on the floor shall be immediately washed away with water.
7. All workers shall report for the prescribed medical tests regularly to protect their own health.
8. Medical facilities and records of examinations and tests.- (1) The occupier of every factory in which electrolytic processes are carried on 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-cum-facilitator;
  - b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a);and
  - c) maintain a sufficient supply of suitable barrier cream, ointment and impermeable water proof plaster in a separate box readily accessible to the workers and used solely for the purpose of keeping these substances. In case cyanides are used in the bath, the box shall also contain an emergency cyanide kit.
9. The medical practitioner shall examine all workers before they are employed in electrolytic processes. Such examination in case of chrome plating shall include inspection of hands, forearms and nose and will be carried out once at least in every fortnight.
10. The record of the examinations referred to in sub-paragraph (2) shall be maintained in a separate register approved by Chief Inspector cum facilitator which shall be kept readily available for inspection by the Inspector-cum-facilitator.

**8. Medical examination by the Certifying Surgeon-**

I. Every worker employed in the electrolytic processes shall be examined by a Certifying Surgeon before his first employment. Such examination shall include X-ray of the chest and-

- a) in case of chromium plating include examination for nasal septum perforation and test for chromium in urine;
  - b) in case of nickel plating, test for nickel in urine; and
  - c) in case of cadmium plating, test for cadmium in urine and -2 micro globulin in urine.
- I. No worker shall be employed in any electrolytic process unless certified fit for such employment by the Certifying Surgeon.
- II. Every worker employed in the electrolytic processes shall be re-examined by a Certifying Surgeon at least once in every year, except in case of the workers employed in cadmium, chromium and nickel-plating processes for whom this examination shall be carried out once in every six months. Such reexamination shall, wherever the Certifying Surgeon considers appropriate, include tests as specified under sub-paragraph (I) excluding the X-Ray of the chest which shall not be required normally to be carried out earlier than once in three years.
- III. The certifying surgeon after examining a worker, shall issue a Certificate of Fitness in **Form-XXIV**. 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 (I) and (II) including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
- IV. The certificate of fitness and the health register shall be kept readily available for inspection by the Inspector-cum-facilitator.
- V. If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the electrolytic processes on the ground that continuance therein would involve 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. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the Certifying Surgeon in which case the person affected shall be suitably rehabilitated.
- VI. No person who has been found unfit to work as said in sub-paragraph (VI) 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.

### **Schedule B-III**

#### **Manufacture and repair of electric accumulators**

- 1. Savings** - This schedule shall not apply to the manufacture or repair of electric accumulators or parts thereof not containing lead or any compound of lead; or to the repair on the premises, of any accumulator forming part of a stationary battery.
- 2. Definitions** - For the purposes of this schedule -
  - a) "Lead process" means the melting of lead or any material containing lead, casting, pasting, lead burning, or any other work, including trimming, or any other abrading or cutting of pasted plates, involving the use, movement or manipulation of or contact with, any oxide of lead;
  - b) "manipulation of raw oxide of lead" means any lead process involving any manipulation or movement of raw oxides of lead other than its conveyance in a receptacle or by means of an implement from one operation to another;
- 3. Prohibition relating to women and young persons**- No pregnant women or lactating mother or young person shall be employed or permitted to work in any lead process or in any room in which the manipulation of raw oxide of lead or pasting is carried on.
- 4. Separation of certain processes**- Each of the following processes shall be carried on in such a manner and under such conditions as to secure effectual separation from one another, and from other processes:
  - a) manipulation of raw oxide of lead;
  - b) pasting;
  - c) drying of pasted plates;
  - d) formation with lead turning (tacking) necessarily carried on in connection therewith; and
  - e) melting down of pasted plates.
- 5. Air space** - In every room in which a lead process is carried on, there shall be at least 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.

**6. Ventilation** - Every workroom shall be provided with inlets and outlets of adequate size as to secure and maintain efficient ventilation in all parts of the room.

**7. Distance between workers in pasting room** - In every pasting room the distance between the centre of the working position of any paster and that of the paster working nearest to him shall not be less than 1.5 meters.

**8. Floor of work rooms-**

I. The floor of every room in which 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) kept free from materials, plant, or other obstructions not required for, or produced in, the process carried on in the room.

II. In all such rooms other than grid casting shops the floor shall be cleansed daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room.

III. In grid casting shops the floor shall be cleansed daily.

IV. Without prejudice to the requirements of sub-paragraphs (I), (II) and (III), where manipulation of raw oxide of lead or pasting is carried on, the floor shall also be-

- a) kept constantly moist while work is being done;
- b) provided with suitable and adequate arrangements for drainage; and
- c) Thoroughly washed daily by means of hose pipe.

**9. Work-benches** - The work-benches at which any lead process is carried on shall-

- a) have a smooth surface and be maintained in sound condition;
- b) be kept free from all materials or plant not required for, or produced in, the process carried out there at; and all such work-benches other than those in grid casting shops shall be cleaned daily either after being thoroughly damped or by means of suction cleaning apparatus at the time when no other work being carried on there at; and all such work-benches in grid casting shops shall be cleaned daily; and every work-bench used for pasting shall-
  - i. be covered throughout with sheet lead and other impervious material;
  - ii. be provided with raised edges;
  - iii. be kept constantly moist while pasting being carried on

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

- a) Melting of lead or material containing lead.
- b) Manipulation of raw oxide of lead unless done in an enclosed apparatus so as to prevent the escape of dust into work-room.
- c) Pasting.
- d) Trimming, brushing, filing or any other abrading or cutting of pasted plates giving rise to dust.
- e) Lead burning other than-
  - i. "tacking" in the formation room.
  - ii. Chemical burning for making of lead linings for cell cases necessarily carried on in such a manner that the application of efficient exhaust is impracticable. Such exhaust draught shall be affected by mechanical means and shall operate on the dust or fume given off as nearly as may be at the point of reason so as to prevent it entering the air of any room in which person's works.

**11. Fumes and gasses from melting pots-** The products of combustion produced in the heating of any melting pot shall not be allow escaping into a room in which persons work.

**12. Containers for dross-** A suitable receptacle with tightly fitting cover shall be provided and used for dross as it is removed from every melting pot. Such receptacle shall be kept covered while in the work room except when dross is being deposited therein.

**13. Container for lead waste-** A suitable receptacle shall be provided in every work room in which old plates and waste material which may give rise to shall be deposited.

**14. Racks and shelves drying room-** a) The racks and shelves provided in any drying room shall not be more than 2.4m from the floor and not more than 60 cm in width:

Provided that as regards racks or shelves set or drawn from both sides the total width shall not exceed 120 cm.

- b) Such racks and shelves shall be cleaned only after being thoroughly damped unless so efficient suction cleaning apparatus is used for this purpose.

**15. Protective clothing-**

- I. Protective clothing shall be provided and maintained in good condition for all persons employed in-
  - a) Manipulation of raw oxide of lead;
  - b) Pasting;
  - c) The formation room; and such clothing shall be worn by the person concerned.

II. The protective clothing shall consist of a water-proof apron and water-proof footwear; and also, as required persons employed in the manipulation of raw oxide of lead or in the pasting the head covering shall be washed daily

**16. 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. The mess room shall place under the charge of a responsible person and shall be kept clean.

**17. Cloak room-** there shall be provided and maintained for the use of all persons employed in a lead process-

- a) a cloak room for clothing put-off during working hours with adequate arrangements for drying the clothes, if wet. Such accommodation shall be separate from mess room.
- b) separate and suitable arrangements for the storage of protective clothing provided as per sub-rule (15)

**18. Washing facilities-**

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

a) A wash place with either-

- i. a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 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 an adequate supply of water laid on.
- iii. a sufficient supply of clean towels made of suitable materials renewed daily, which supply in case of pasters and person employed in manipulation of raw oxide of lead shall include a separate marked towel for each worker; and
- iv. a sufficient supply of soap or other suitable cleansing material and of nail brushes

b) There shall in addition be provided means of washing in close proximity to the rooms in which manipulation of raw oxide of lead or pasting is carried on if required by notice in writing from the Chief-Inspector-cum-Facilitator.

**19. Time allowed for washing** - Before each meal and before the end of the day's work, at least ten minutes, in addition to the regular meal times, shall be allowed for washing to each person employed in the manipulation of raw oxide of lead or in pasting.

Provided that if there is one basin or 60 centimeters of trough for each such person, this paragraph shall not apply.

**20. Facilities for bathing-** sufficient bath accommodation to the satisfaction of the Chief Inspector-cum-Facilitator shall be provided to all the persons engaged in manipulation of raw oxide of lead or in pasting and a sufficient supply of soap and clean towels.

**21. Foods, drinks etc. prohibited in work-rooms-** 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.

**22. Medical facilities and records of medical examination and tests-**

I. The occupier of every factory in which manufacture and repair of electric accumulators is carried on shall-

- a) Employ a qualified medical practitioner for medical surveillance of the workers employed there in whose employment shall be subject to the approval of chief inspector-cum-facilitator, and
- b) Provide to the set medical practitioner all necessary facilities for the purpose referred to in clause (a).

II. 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 and such register shall be kept readily available for inspection by the inspector-cum-facilitator.

**23. Medical examination by the Certifying Surgeon—**

- I. Every worker employed in a lead processes shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include test for lead in urine and blood, ALA in urine, hemoglobin 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.
- II. Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every 3 calendar months and such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests specified in sub-paragraph (I).
- III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in **Form-XXIV**. 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 subparagraphs (I) and (II), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
- IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.
- V. 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 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.
- VI. No person who has been found unfit to work as said in sub-paragraph (V) 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 B-IV  
Glass Manufacture**

**1. Definitions - For the purpose of this schedule—**

- a) "efficient exhaust draught" means localised ventilation effected by mechanical means for the removal of gas, vapour, dust or fumes so as to prevent them (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fume, or dust originate;
- b) "lead compound" means any compound of lead other than galena which, when treated in the manner described below, yields to an aqueous solution of hydrochloric acid a quantity soluble lead compound exceeding, when calculated as lead monoxide, five percent of the dry weight of the portion taken analysis.

The method of treatment shall be as follows: -

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 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.

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

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

**3. Prohibition relating to women and young person -** No pregnant women or lactating mother 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.

**4. Floor and work-benches** - The floor and work-benches of every room in which a dry compound of lead is manipulated or in which any process is carried on giving off silica dust shall be kept moist and shall comply with the following requirements:

**a) The floor shall be-**

- i. of cement or similar material so as to be smooth and impervious to water;
- ii. maintained in sound condition; and
- iii. cleansed daily after being thoroughly spread with water at a time when no other work is being carried on the room, and

**b) The work-benches shall-**

- i. have a smooth surface and be maintained in sound condition, and
- ii. 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 there at.

**5. 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 gutta-percha and be tight and shall slope gently down to a covered drain;
- c) the workplaces shall be so enclosed in projecting hoods that openings required for the 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.

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

**7. Blow pipes** - Every glass blower shall be provided with a separate blow pipe bearing the distinguishing mark of the person to whom it is issued and suitable facilities shall be readily available to every glass blower for sterilising his blow pipe.

**8. 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 room or workplace wherein any process specified in paragraph 2 is carried on.

**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 2 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.

**10. Washing facilities** - There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in the processes specified in paragraph 2,

a) a wash place with either-

- i. a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow of at least 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 an adequate supply of water laid on or always readily available;

b) a sufficient supply of clean towels made of suitable material renewed daily with sufficient supply of soap or other suitable cleansing material and of nail brushes; and

c) a sufficient number of stand pipes with taps the number and location of which shall be to the satisfaction of the Chief Inspector-cum-facilitator.

**11. Medical facilities and record of examinations and tests-**

1. The occupier of every factory in which glass manufacturing processes are carried out, 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-cum-facilitator; and
- 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 cum facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.

**12. Medical Examination by Certifying Surgeon—**

- i. Every worker employed in processes specified in paragraph 2 shall be examined by the Certifying Surgeon within 15 days of his first employment. Such examination shall include pulmonary function tests and in suspected cases chest X-ray as well as tests for lead and urine. No worker shall be allowed to work after 15 days of first employment in the factory unless certified for such employment by the Certifying Surgeon.
- ii. Every worker employed in the said processes shall be re-examined by the 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 (I).
- iii. The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in **Form-XXIV**. 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 subparagraph (I) and (II), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
- iv. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- v. 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 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. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which the person affected shall be suitably rehabilitated.
- vi. No person who has been found unfit to work as said in sub-paragraph (V) 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.

**13. Exemption—** If the Chief Inspector-cum-Facilitator 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 B can be suspended or relaxed without danger to the persons employed therein, or that the application of this schedule or any part thereof is for any reason impracticable, he may by certificate in writing authorize such suspension or relaxation as may be indicated in the certificate for such period and on such conditions as he may think fit.

**Schedule B-V**

**Grinding or glazing of metals and processes incidental there to**

**1. Exception —**

- (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.
- (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.

**2. Definitions -** For the purposes of this schedule -

- a) "grindstone" means a grindstone composed of natural or manufactured sandstone but does not include a metal wheel or cylinder into which blocks of natural or manufactured sandstone are fitted;
- b) "abrasive wheel" means a wheel manufactured of bonded emery or similar abrasive;
- c) "grinding" means the abrasion, by aid of mechanical power, of metal, by means of a grindstone or abrasive wheel;
- d) "glazing" means the abrading, polishing or finishing, by aid of mechanical power, of metal, by means of any wheel, buff, mop or similar appliance to which any abrading or polishing substance is attached or applied.
- e) "trading" means the turning up, cutting or dressing of a revolving grindstone before it is brought into use for the first time;

- f) "hacking" means the chipping of the surface of a grindstone by a hack or similar tool; and
- g) "rodding" means the dressing of the surface of a revolving grindstone by the application of a rod, bar or strip of metal to such surface.

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

- a) a hood or other appliance so constructed, arranged, placed and maintained as substantially to intercept the dust thrown off;
- b) a duct of adequate size, air tight and so arranged as to be capable of carrying away the dust, which duct shall be kept free from obstruction and shall be provided with proper means of access for inspection and clean it, 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-cum-facilitator may accept any other appliance that is, in his opinion, as effectual for the interception, removal and disposal of dust thrown off as a hood, duct and fan would be.

**4. Restriction 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.

**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 grind stone is done.

**6. Hacking and rodding-** Hacking or rodding shall not be done unless during the process either an adequate supply of water is laid on at the upper surface of the grindstone or adequate appliances for the interception of dust are provided in accordance with the requirements of paragraph 3.

**7. Examination of dust equipment-**

All equipment for the extraction or suppression 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.

**8. Medical facilities and record of examinations and tests-**

- I. The occupier of every factory in which grinding or glazing of metals are carried out, 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 cum facilitator; and
  - b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
- II. 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-cum- Facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.

**9. Medical examination by the Certifying Surgeon-**

- I. Every worker employed in grinding or glazing of metal and processes incidental thereto shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include pulmonary function tests and in suspected 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.
- II. 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 (I).
- III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in Form- XXIV. 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 (I) and (II), including the nature and the results of the tests, shall also

be entered by the Certifying Surgeon in a health register in **Form-XXIII**

IV The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.

V 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 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. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.

VI No person who has been found unfit to work as said in sub-paragraph (V) 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-cum-facilitator may by certificate in writing, subject to such conditions as he may specify therein, relax or suspend any of the provisions of this schedule in respect of any factory if owing to the special methods of work or otherwise such relaxation or suspension is practicable without danger to the health or safety of the persons employed.

11. **Prohibition relating to women and young persons.** - No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

#### Schedule B-VI

##### *Manufacture and treatment of lead and certain compounds of lead*

1. **Definitions-** For this purpose of this schedule -

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

**The method of treatment shall be as follows: -**

A weighed quantity of the material which has been dried at 100 degree centigrade 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 precipitate as lead sulphate and weighed as lead sulphate.

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 (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 dusts originate.

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

- a) work at a furnace where the reduction or treatment of zinc or lead ores is carried on;
- b) the manipulation, treatment or reduction of ashes containing lead, the desilvering of lead or the melting of scrap lead or zinc;
- c) the manufacture of solder or alloys containing more than ten percent of lead;
- d) the manufacture of any oxide, carbonate, sulphate, chromate, acetate, nitrate or silicate of lead;
- e) the handling or mixing of lead tetra-ethyl;
- f) any other operation involving the use of a lead compound; and
- g) The cleaning of workrooms where any of the operations aforesaid are carried on.

3. **Prohibition relating to women and young persons-** No pregnant women or lactating mother or young person shall be employed or permitted to work in any of the operations specified in paragraph 1.

4. **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 5 to 13 are complied with.
5. **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 to contrive as to operate on the dust, fume, gas or vapour as closely as possible to the point of origin.
  6. **Medical facilities and record of examinations and tests-**
    - I. The occupier of every factory in which grinding or glazing of metals are carried out, 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-cum-Facilitator; and
      - b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
    - II. 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 cum facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  7. **Medical examination by the Certifying Surgeon-**
    - I. every worker employed shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include pulmonary function tests and in suspected 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.
    - II. Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every 3 calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests as specified in sub-paragraph (I).
    - III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in **Form-XXIV**. 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 subparagraphs (I) and (II), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
    - IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector cum facilitator.
    - V. 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 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. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
    - VI. 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.
  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 workroom in which the process is carried on and no person shall remain in any such room during intervals for meals or rest.
  9. **Protective clothing-** Suitable protective overalls and head coverage shall be provided, maintained and kept clean by the occupier and such overalls and head coverings shall be worn by the persons employed.
  10. **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.
  11. **Washing facilities-**
    - I. The occupier shall provide and maintain for the use of all persons employed suitable washing facilities consisting of-
      - a) a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow 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 60centimeters;
      - b) At least one wash-basin for every ten persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of clean water; together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material and clean towels.

11. The facilities so provided shall be placed under the charge of a responsible person and shall be kept clean.
12. **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 work room which shall be furnished with sufficient tables and benches, and unless a canteen serving hot meals is provided, adequate means of warming the 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.
13. **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.
14. **Exemption-** Where the Chief Inspector cum facilitator is satisfied that all or any of the provisions of this schedule are not necessary for the protection of the persons employed, he may by certificate in writing exempt any factory from all or any of such provisions, subject to such conditions as he may specify.

**Schedule B-VII**  
**Generation of gas from dangerous petroleum**

1. **Prohibition relating to women and young persons-** No pregnant women or lactating mother or young person shall be employed or permitted to work in or shall be allowed to enter any building in which the generation of gas from dangerous petroleum is carried on.
2. **Flame traps-** The plant for generation of gas from dangerous petroleum and associated piping and fittings shall be fitted with at least two efficient flame traps so designed and maintained as to prevent a flash back from any burner to the plant. One of these traps shall be fitted as close to the plant as possible. The plant and all pipes and valves shall be installed and maintained free from leaks.
3. **Generating building or room-** All plants for generation of gas from dangerous petroleum erected after the coming into force of the provisions specified in this schedule, shall be erected outside the factory building proper in a separate well-ventilated building (hereinafter referred to as "generating building"). In the case of such plants erected before the coming into force of the provisions specified in this schedule there shall be no direct communication between the room where such plants are erected (hereinafter referred to as "the generating room") and the remainder of the factory building. So far as practicable, all such generating rooms shall be constructed of fire-resisting materials.
4. **Fire extinguishers-** An efficient means of extinguishing petrol fires shall be maintained in an easily accessible position near the plant for generation of gas from dangerous petroleum.
5. **Plant to be approved by Chief Inspector-** Petrol gas shall not be manufactured except in a plant for generating gas, the design and construction of which has been approved by the Chief-Inspector-cum-facilitator.
6. **Escape of dangerous petroleum-** Effective steps shall be taken to prevent dangerous petroleum from escaping into any drain or sewer.
7. **Prohibition relating to smoking-** No person shall smoke or carry matches, fire or naked light or other means of producing a naked light or spark in the generation room or building or in the vicinity thereof and a warning notice in the language understood by the majority of the workers shall be 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.
8. **Access to dangerous petroleum or container-** No unauthorized person shall have access to any dangerous petroleum or to a vessel containing or having actually contained dangerous petroleum.
9. **Electric fittings-** All electric fittings shall be of flame proof construction and all electric conductors shall either be enclosed in metal conduits or be lead-sheathed.
10. **Construction of doors-** All doors in the generating room or building shall be constructed to open outwards or to slide and no door shall be locked or obstructed or fastened in a such a manner that it cannot be easily and immediately opened from the inside while gas is being generated and any person is working in the generating room or building.
11. **Repair of containers-** No vessel that has contained dangerous petroleum shall be repaired in a generating room or building and no repairs to any such vessel shall be undertaken unless live steam has been blown into the vessel and until the interior is thoroughly steamed out or other equally effective steps have been taken to ensure that it has been rendered free from dangerous petroleum or inflammable vapour.

**Schedule B- VIII**

**Cleaning, smoothing or roughening, etc. of articles, by a jet of sand, metal shot, grit, or other abrasive propelled by a blast of compressed air or steam (Blasting Regulations)**

1. **Definitions-** For the purposes of this schedule -
  - a) "blasting" means cleaning, smoothing, roughening, or removing of any part of the surface of any article by the use of an abrasive of a jet of sand, metal shot, or grit or other material, propelled by a blast of compressed air or steam;
  - b) "blasting enclosure" means a chamber, barrel, cabinet or any other enclosure designed for the performance of blasting therein;
  - c) "blasting chamber" means a blasting enclosure in which any person may enter at any time in connection with any work or otherwise; and
  - d) "cleaning of castings" where done as an incidental or supplemental process 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 smoothing of a casting, but does not include the free treatment
2. **Prohibition of sand blasting -** Sand or any other substance containing free silica shall not be introduced as an abrasive into any blasting apparatus and shall not be used for blasting: Provided that this clause 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.
3. **Precautions in connection with blasting operations-**
  - a) Blasting shall not be done except in a blasting enclosure and no work other than blasting and any work immediately incidental thereto and clearing and repairing of the enclosure including the plant and appliances situated therein, shall be kept closed and air tight while blasting is being done therein.
  - b) **Maintenance of blasting enclosure:** Blasting enclosure shall always be maintained in good condition and effective measures shall be taken to prevent dust escaping from such enclosure, and from apparatus connected therewith, into the air of any room.
  - c) **Provision of separating apparatus:** There shall be provided and maintained for and in connection with every blasting enclosure, efficient apparatus for separating, so far as practicable, abrasive which has been used for blasting and which is to be used again as an abrasive, from dust or particles of other materials arising from blasting, and no such abrasive shall be introduced into any blasting apparatus and used for blasting until it has been so separated:  
Provided that this clause shall not apply, except in the case of blasting chambers, to blasting enclosures constructed or installed before the coming into force of this schedule, if the Chief Inspector cum Facilitator is of opinion that it is not reasonably practicable to provide such separating apparatus.
  - d) **Provision of ventilating plant:** There shall be provided and maintained in connection with every blasting enclosure efficient ventilating plant to extract, by exhaust draught effected by mechanical means, dust produced in the enclosure. The dust extracted and removed shall be disposed of by such method and in such manner that it shall not escape into the air of any room; and every other filtering or settling device situated in a room in which persons are employed, other than persons attending to such bag or other filtering or settling device, shall be completely separated from the general air of that room in an enclosure ventilated to the open air.
  - e) **Operation of ventilating plant:** The ventilating plant provided for the purpose of subparagraph (d) shall be kept in continuous operation whenever the blasting enclosure is in use whether or not blasting is actually taking place therein, and in the case of a blasting chamber, it shall be in operation even when any person is inside the chamber for the purpose of cleaning.
4. **Inspection and examination-**
  - I. Every blasting enclosure shall be specially inspected by a competent person at least once in every week in which it is used for blasting. Every blasting enclosure, the apparatus connected therewith and the ventilating plant shall be thoroughly examined and in the case of ventilating plant, tested by a competent person at least once in every month.
  - II. 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 cum facilitator and shall be available for inspection by any workman employed in or in connection with blasting in the factory. Any defect found on any such inspection, examination or test shall be immediately reported by the person carrying out the inspection, examination or test to the occupier, manager or other appropriate person and without prejudice to the foregoing requirements of this schedule, shall be removed without avoidable delay.

**5. Provision of protective helmets, gauntlets and overalls-**

- I. There shall be provided and maintained for the use of all persons who are employed in a blasting chamber, whether in blasting or in any work connected therewith or in cleaning such a chamber protective helmets of a type approved by a certificate of the Chief Inspector cum Facilitator; and every such person shall wear the helmet provided for this use whilst he is in the chamber and shall not remove it until he is outside the chamber.
- II. Each protective helmet shall carry a distinguishing mark indicating the person by whom it is intended to be used and no person shall be allowed or required to wear a helmet not carrying his mark or a helmet which has been worn by another person and has not since been thoroughly disinfected.
- III. Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate of not less 170 litres per minute.
- IV. Suitable gauntlets and overalls shall be provided for the use of all persons while performing blasting or assisting at blasting, and every such person shall while so engaged, wear the gauntlet and over all provided.

**6. Precautions in connection with cleaning and other work –**

- I. Where any person is engaged upon cleaning of any blasting apparatus or blasting enclosure or of any apparatus or ventilating plant connected therewith or the surroundings thereof or upon any other work in connection with any blasting apparatus or blasting enclosure or with any apparatus or ventilating plant connected therewith so that he is exposed to the risk of inhaling dust which has arisen from blasting, all practicable measures shall be taken to prevent such inhalation.
- II. 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. Vacuum cleaners shall be provided and used wherever practicable for such cleaning operations.

**7. Storage accommodation for protective wear -** Adequate and suitable storage accommodation for the helmets, gauntlets and overalls required to be provided by 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.

**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 weekday in which they are used. Where dust arising from the cleaning of such protective clothing or devices is likely to be inhaled, all practicable measures shall be taken to prevent such inhalation. Vacuum cleaners shall, wherever practicable, be used for removing dust from such clothing and compressed air shall not be used for removing dust from any clothing.

**9. Maintenance of vacuum cleaning plant -** Vacuum cleaning plant used for the purpose of this schedule shall be properly maintained.

**10. Restrictions in employment of young persons-**

- I. No pregnant women or lactating mother or 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.
- II. No woman or lactating mother or person under 18 years of age shall be employed to work regularly within 20 feet of any blasting enclosure unless the enclosure is in a room and he is outside that room where he is effectively separated from any dust coming from the enclosure.

**11. Power to exempt or relax-**

- I. If the Chief Inspector cum facilitator is satisfied that in any factory or any class of factory, the use of sand or other substance containing free silica as an abrasive in blasting is necessary for a particular manufacture or process (other than the process incidental or supplemental to making of metal castings)

and that the manufacture or process cannot be carried on without the use of such abrasive or that owing to the special conditions or special method of work or otherwise any requirement of this Schedule B can be relaxed without endangering the health of the persons employed or that application of any such requirements is for any reason impracticable or inappropriate, he may, with the previous sanction of the State Government, by an order in writing exempt the said factory or class of factory from such provisions of this schedule, to such an extent and subject to such conditions and for such period as may be specified in the said order.

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

**12. Medical facilities and records of examinations and tests—**

- I. 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; and
  - b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
- II. 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.

**13. Medical examination by the Certifying Surgeon—**

- I. Every worker employed in any of the processes to which this schedule shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include pulmonary function tests and 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.
- II. 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.
- III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in **Form-XXIV**. 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 (I) and (II), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
- IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-facilitator.
- V. 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 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. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
- VI. No person who has been found unfit to work as said in sub-paragraph (V) 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.

**Prohibition relating to women and young persons:** No pregnant woman or lactating mother or young person shall be employed or permitted to work in any kind of such works.

**Schedule B-IX**

**Lining and tanning of raw hides and skins and processes incidental there to.**

**I. Cautionary notices—**

- I. Cautionary notices as to anthrax in the form specified by the Chief Inspector cum facilitator shall be affixed in prominent positions in the factory where they may be easily and conveniently read by the persons employed.
- II. A copy of a warning notice as to anthrax in the form specified by the Chief Inspector cum facilitator

shall be given to each person employed when he is engaged, and subsequently if still employed, on the first day of each calendar year.

- III. 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.
- IV. Notices shall be affixed in prominent places in the factory stating the position of the first-aid box or cupboard and the name of the person in charge of such box or cupboard.
- V. If any person employed in the factory is illiterate, effective steps shall be taken to explain carefully to such illiterate person the contents of the notice specified in sub-paragraphs (I), (II) and (IV) and if chrome solutions are used in the factory, the contents of the notice specified in sub-paragraph (III).

**2. Protective clothing-** The occupier shall provide and maintain in good condition the following articles of protective clothing:

- a) waterproof footwear, leg coverings, aprons and gloves for persons employed in processes involving contact with chrome solutions, including the preparation of such solutions;
- b) gloves and boots for persons employed in lime yard;
- c) protective footwear, aprons and gloves for persons employed in processes involving the handling of hides and skins, other than in processes specified in subparagraphs (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 subparagraphs (a) and (b) shall be of rubber.

Provided further that the gloves may not be provided to persons fleshing by hand or employed in processes in which there is no risk of contact with lime, sodium sulphide or other caustic liquor.

**3. Washing facilities, mess room and cloakroom-** There shall be provided and maintained in a clean state and in good repair for the use of all persons employed-

- a) a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow of at least 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 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 clean water; together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material and clean towels;
- b) a suitable mess room, adequate for the number remaining on the premises during the most intervals, which shall be furnished with sufficient tables and benches and adequate means for warming food and for boiling water. The mess room shall—
  - i. be separate from any room or shed in which hides or skins are stored, treated or manipulated;
  - ii. be separate from the cloakroom; and
  - iii. be placed under the charge of a responsible person; and
- c) the occupier shall provide and maintain for use of all persons employed suitable accommodation for clothing put off during working hours and another accommodation for protective clothing and also adequate arrangements for drying up the clothing in both the cases, if wet. The accommodation so provided shall be kept clean at all times and placed under the charge of a responsible person.

**4. Food, drinks, etc. prohibited in workrooms -** No food, drink, pan and supan 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.

**5. Medical facilities and record of examinations and tests—**

I. The occupier of every factory in 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 inspection of the hands of all the persons keeping in contact with chromium substances to be made twice a week; and
- d) Provide and maintain and supply suitable ointment and plaster in a box readily accessible to the workers and solely used for the purpose of keeping the ointment and the plaster.

II. The records of medical examinations and appropriate tests carried out by the said medical practitioners shall be maintained in a separate register approved by the Chief Inspector's cum facilitator, which shall be kept readily available for inspection by the Inspector-cum-facilitator.

**6. Medical Examination by Certifying Surgeon-**

- I. Every worker employed in shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include 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.
- II. Every worker employed in the said processes shall be re-examined by the 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 (I).
- III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in **Form-XXIV**. 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-paragraph (I) and (II), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
- IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-facilitator.
- V. 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. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
- VI. No person who has been found unfit to work as said in sub-paragraph (V) 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.

**Prohibition relating to women and young persons:** No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

**Schedule B-X**

**Carrying on of certain processes of lead and lead material in Printing presses and type foundries**

**1. Definitions -** For the purpose of this schedule-

- a) "lead material" means material containing not less than five per cent of lead.
- b) "lead process" means-
  - i. the melting of lead or any lead material for casting and mechanical composing;
  - ii. the recharging of machines with used lead material;
  - iii. any other work including removal of dross from melting pots and cleaning of plungers; and
  - iv. Manipulation, movement or other treatment of lead material.
- c) "efficient exhaust draught" means localised ventilation effected by lead or mechanical means for the removal of gas, vapour, dust or fumes so as to prevent them from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fume, or dust originates.

**2. Exhaust draught-**

I. 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. Provided that the aforesaid processes may be carried on without efficient exhaust draught if they are carried on in such a manner as to prevent free escape of gas, vapour, fume or dust into any place in which work is being done or is carried on in electrically-heated and thermostatically controlled melting pots.

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

**3. Prohibition relating to women and young persons. -** No pregnant women or lactating mother or young person shall be employed or permitted to work in any lead process

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 processes:-
  - a) melting of lead or any lead material;
  - b) casting of lead in gots; and
  - c) Mechanical composing.
5. **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.
6. **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.
7. **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.
8. **Washing facilities-** There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in a lead process -
  - a) a wash place with either-
    - i. a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 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 an adequate supply of water laid on or always readily available; and
  - b) a sufficient supply of clean towels made of suitable materials renewed daily, with a sufficient supply of soap or other suitable cleansing material.
9. **Medical facilities and record of examination and tests:**
  - I. The occupier of every factory to which this 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; and
    - b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a)
  - II. 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-cum-facilitator.
10. **Medical examination by Certifying Surgeon--**
  - I. Every worker employed in a 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.
  - II. 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 (I).
  - III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in **Form-XXIV**. 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 subparagraphs (I) and (II), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
  - IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-facilitator.
  - V. If at any time 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 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. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.

VI. No person who has been found unfit to work as said in sub-paragraph (V) 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.

11. **Food, drinks, etc. prohibited in workrooms** - 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.
12. The occupier shall provide to all persons employed in lead process two full sleeve overall every year, arrange for their weekly washing and maintain these in good condition. The person employed in such a process shall wear these overall while engaged in such work.
13. **Exemption** - Where the Chief Inspector cum facilitator 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 such provisions subject to such conditions as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-Facilitator.

**Schedule B-XI**  
**Chemical Works**  
**PART-I**

1. **Application** - This schedule shall apply to all manufacture and processes incidental thereto carried on in chemical works.
2. **Definitions** - For the purpose of this schedule-
  - a) "chemical works" means any factory or such parts of any factory as are listed in appendix 'A' to this schedule;
  - b) "efficient exhaust draught" means localised ventilation effected by mechanical or other means for the removal of gas, vapour, fume or dust to prevent it from escaping into the air of any place in which work is carried on;
  - c) "bleaching powder" means the bleaching powder commonly called chloride of lime;
  - d) "chlorate" means chlorate or perchlorate;
  - e) "caustic" means hydroxide of potassium or sodium;
  - f) "chrome process" means the manufacture of chromate or bi-chromate of potassium or sodium, or the manipulation, movement or other treatment of these substances;
  - g) "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;
  - h) the term "permit to work" system means the compliance with the procedures laid down under para 20 of Part II;
  - i) "toxic substances" means all those substances which when they enter into the human body, through inhalation or ingestion or absorption through skin, in sufficient quantities cause fatality or exert serious affliction of health or chronic harmful effects on the health of persons exposed to it due to its inherent chemical or biological effects. In respect of substances whose TLV is specified in Rule 64, exceeding the concentration specified therein would make the substance toxic;
  - j) "emergency" means a situation or condition leading to a circumstance or set of circumstances in which there is danger to the life or health of persons or which could result in big fire or explosion or pollution to the work and outside environment, affecting the workers or neighbourhood in a serious manner, demanding immediate action;
  - k) "dangerous chemical reactions" means high speed reactions, runaway reactions, delayed reactions, etc. and are characterised by evolution of large quantities of heat, intense release of toxic or flammable gases or vapours, sudden pressure build-up etc;
  - l) "manipulation" means mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping, handling, using, etc.;
  - m) "approved personal protective equipment" means items of personal protective equipment conforming to the relevant ISI specifications or in the absence of it, personal protective equipment approved by the

Chief-Inspector-cum-facilitator;

- n) "appropriate personal protective equipment" means that when the protective equipment is used by the worker, he shall have no risk to his life or health or body; and
- o) "confined space" means any space by reason of its construction as well as in relation to the nature of the work carried therein and where hazards to the persons entering into or working inside exist or are likely to develop during working.

## PART-II

### General Requirements

#### Applying to all the works in Appendix 'A'

##### 1. Housekeeping-

- I. Any spillage of materials shall be cleaned up before further processing
- II. Floors, platforms, stairways, passages and gangways shall be free of any obstructions.
- III. There shall be provided easy means of access to all parts of the parts of the plant to facilitate cleaning.

2. **Improper use of chemicals-** Chemicals or solvents or empty containers containing chemicals or solvents shall be permitted to be used by workers for any purpose other than in the processes for which they are supplied.

3. **Prohibition on the use of food, etc.-** No food, drink, tobacco, pan or any edible item shall be stored or heated or consumed on or near any part of the plant or equipment.

##### 4. Cautionary Notices and Instructions-

I. Cautionary notices in a language understood by the majority of workers shall be prominently displayed in all hazardous areas drawing the attention of all workers about the hazards to health, hazards involving fire and explosion and any other hazard such as consequences of testing of material or substances used in the process or using any contaminated container for drinking or eating, to which the workers' attention should be drawn for ensuring their safety and health.

II. In addition to the above cautionary notice, arrangement shall be made to instruct and educate all the workers including illiterate workers about the hazards in the process including the specific hazards to which they may be exposed to, in the normal course of their work. Such instructions and education should also deal with the hazards involved in unauthorised and unsafe practices including the properties of substances used in the process under normal conditions as well as abnormal conditions and the precautions to be observed against each and every hazard. Further, an undertaking from the workers shall be obtained within 1 month of their employment and for old workers employed, within one month of coming into operation of the rules, to the effect that they have read the contents of the cautionary notices and instructions, understood them and would abide by them. The training and instructions to all workers and all supervisory personnel shall include the significance of different types of symbols and colors used on the labels stuck or painted on the various types of containers and pipelines.

##### 5. Evaluation and provision of safeguards before the commencement of process-

I. Before commencing any process or any experimental work, or any new manufacture covered under Appendix 'A', the occupier shall take all possible steps to ascertain definitely all the hazards involved both from the actual operations and the chemical reactions including the dangerous chemical reactions. The properties of the raw materials used, the final products to be made and any by-products derived during manufacture, shall be carefully studied and provisions shall be made for dealing with any hazards including effects on workers, which may occur during manufacture.

II. Information in writing giving details of the process, its hazards and the steps taken or proposed to be taken from the design stage to disposal stage for ensuring the safety as in sub-para (I) above should be sent to the Chief Inspector at the earliest but in no case less than 15 days before commencing manufacture, handling, or storage of any of items covered under Appendix 'A', whether on experimental basis, or as pilot plant or as trial production, or as large scale manufacture.

III. The design, construction, installation, operation, maintenance and disposal of the buildings, plant and facilities shall take into consideration effective safeguards against all the safety and health hazards so evaluated.

IV. The requirements under the sub-Para (I) to (III) shall not act in lieu of or in derogation to, any other provisions contained in any Act governing the work.

6. **Authorized entry-** Authorized persons only shall be permitted to enter any section of the factory or plant where any dangerous operations or processes are being carried on or where dangerous chemical reactions are taking place or where hazardous chemicals are stored.

**7. Examination of instruments and safety devices-**

I. All instruments and safety devices used in the process shall be tested before taking into use and after carrying out any repair to them and examined once in a month, by a competent person. Records of such tests and examinations shall be maintained in a register.

II. All instruments and safety devices used in the process shall be operated daily or as often as it is necessary, to ensure its effective and efficient working at all times.

**8. Electrical installations-** All electrical installations used in the process covered in Appendix 'A' shall be of an appropriate type to ensure safety against the hazard prevalent in that area such as suitability against dust, dampness, corrosion, flammability and explosivity etc. and shall conform to the relevant ISI specifications governing their construction and use for that area.

**9. Handling and storage of chemicals-**

I. The containers for handling and storage of chemicals shall be of adequate strength taking into consideration the hazardous nature of the contents. They shall also be provided with adequate labeling and colour coding arrangements to enable identification of the containers and their contents indicating the hazards and safe handling methods and shall conform to the respective ISI standards. The instructions given in the label shall be strictly adhered to. Damaged containers shall be handled only under supervision of a knowledgeable and responsible person and spillage shall be rendered innocuous in a safe manner using appropriate means.

II. The arrangements for the storage of chemicals including charging of chemicals in reaction vessels and containers shall be such as to prevent any risk of fire or explosion or formation of toxic concentration of substances above the limits specified in Rule 66.

III. Without prejudice to the generality of the requirements in sub- Para (II) above, the arrangements shall have suitable ventilation facilities and shall enable the maintenance of safe levels in vessels and containers. Such arrangements shall also take into consideration, the type of flooring and the capacity of flooring and the compatibility requirements of substances with other chemicals stored nearby.

a) Storage of chemicals and intermediate products, which are highly unstable or reactive or explosive, shall be limited to the quantities required for two months use.

b) Whenever the quantities laid down in the above clause (a) are to be exceeded, the permission of the Chief Inspector cum facilitator shall be obtained.

c) Notwithstanding anything contained in clause (a) and (b) above, the Chief Inspector cum facilitator may direct any factory carrying out processes covered in Appendix 'A' to further limit the storage of hazardous substances to quantities less than two months on considerations of safety.

d) Standby arrangements equal to the biggest container shall always be available to transfer the toxic substances quickly into the standby storage facility if any defect develops in any of the container resulting in the release of toxic substances.

IV. Any storage facility constructed using non-metallic material such as Fibre glass Reinforced Plastics (FRP), all glass vessels etc., shall have adequate strength to withstand the stress, if any, exerted by the contents and shall be properly anchored. Working platforms, access ladders, pipelines etc. used in such storage facility shall not have any support on the structure of the storage facility and shall be independently supported.

**10. Facility for isolation -** The plant and equipment shall be so constructed and maintained as to enable quick isolation of plant or part of plant or equipment, with appropriate indication. One copy of the layout plan indicating the isolation facilities shall always be available with the security personnel, the maintenance and the health and safety personnel and these isolation facilities shall be checked for its effectiveness once in a month.

**11. Personal protective equipment-**

I. All workers exposed to the hazards in the processes covered by this Schedule shall be provided with appropriate and approved type of personal protective equipment. Such equipment shall be in a clean, sterile and hygienic condition before issue.

II. The occupier shall arrange to inform, educate and supervise all the workers in the use of personal protective equipment while carrying out the job.

III. As regards any doubt regarding the appropriateness of any personal protective equipment, the decision of the Chief Inspector cum -Facilitator will be final.

**12. Alarm Systems-**

I. Suitable and effective alarm systems giving audible and visible indications, shall be installed at the

control room as well as in all strategic locations where process control arrangements are available so as to enable corrective action to be taken before the operational parameters exceed the predetermined safe levels or lead to conditions conducive for an outbreak of fire or explosion to occur. Such alarm systems shall be checked daily and tested every month at least once to ensure its performance efficiency at all times.

II. The Chief Inspector-cum-Facilitator may direct such system to be installed in case of plants or processes where toxic materials are being used and spillage or leakage of which may cause wide spread poisoning in or around the plant.

#### **13. Control of escape of substances into the work atmosphere-**

I. Effective arrangements such as, enclosure, or by pass, or efficient exhaust draught, maintenance of negative pressure etc., shall be provided in all plants, containers, vessels, sewers, drains, flues, ducts, culverts, and buried pipes and equipment, to control the escape and spread of substances which are likely to give rise to fire or explosion or toxic hazards during normal working and in the event of accident or emergency.

II. In the event of the failure of the arrangements for control resulting in the escape of substances in the work atmosphere immediate steps shall be taken to control the process in such a manner, that further escape is brought down to the safe level.

III. The substances that would have escaped into the work atmosphere before taking immediate steps as required in sub-Para (II), shall be rendered innocuous by diluting with air or water or any other suitable agent or by suitably treating the substances.

**14. Control of dangerous chemical reactions-** Suitable provision, such as automatic and or remote-control arrangements, shall be made for controlling the effects of 'dangerous chemical reactions'. In the event of failure of control arrangements automatic flooding or blanketing or other effective arrangements shall come into operation.

#### **15. Testing, examination and repair of plant & equipment-**

I. All parts of plant, equipment and machinery used in the process which in the likely event of their failure may give rise to an emergent situation shall be tested by a competent person before commencing process and retested at an interval of two years or after carrying out repairs to it. The competent person shall identify the parts of the plant, equipment and machinery required to be tested as aforesaid and evolve a suitable testing procedures. In carrying out the test mentioned above in respect of pressure vessels or reaction vessels the following precautions shall be observed, namely-

- a) before the test is carried out, each vessel shall be thoroughly cleaned and examined externally, and as far as practicable, internally also for surface defects, corrosion and foreign matters. During the process of cleaning and removal of sludge, if any, all due precautions shall be taken against fire or explosion, if such sludge is of pyrophoric nature or contains spontaneously combustible chemicals;
- b) as soon as the test is completed, the vessel shall be thoroughly dried internally and shall be clearly stamped with the marks and figures indicating the person by whom testing has been done, and the date of test; and
- c) any vessel which fails to pass the test or which for any other reason is found to be unsafe for use shall be destroyed or rendered unusable under intimation to the Chief Inspector-cum-facilitator.

II. All parts of plant, equipment, machinery which in the likely event of failure may give rise to an emergent situation shall be examined once in a month by the competent person.

III. Records of testing and examination referred to in paragraphs (I) and (II) shall be maintained as long as that part of the plant, equipment and machinery are in use.

IV. All repair work including alteration, modification and addition to be carried out to the plant, equipment and machinery shall be done under the supervision of a responsible person who shall evolve a procedure to ensure safety and health of persons doing the work. When repairs or modification is done on pipelines, and joints are required to be welded, butt welding of joints shall be preferred. Wherever necessary, the responsible person shall regulate the aforesaid work through a 'Permit to work system'.

#### **16. Staging-**

I. All staging that is erected for the purpose of maintenance work or repair work or for work connected with entry into confined spaces and used in the processes included in Appendix 'A', shall be stable, rigid and constructed out of substantial material of adequate strength. Such staging shall conform to the respective Indian Standard specifications.

II. Staging shall not be erected over any closed or open vessel unless the vessel is so constructed and ventilated to prevent exposure of persons working on the stages.

III. All the staging constructed for the purpose of this Para shall have appropriate ladders which are safe and

shall be fitted with proper hand rails to a height of one metre and to board

**17. Seating Arrangements-** The seating arrangements provided for the operating personnel working in processes covered in Appendix 'A' shall be located in a safe manner as to prevent the risk of exposure to toxic, flammable and explosive substances evolved in the work environment in the course of manufacture or repair or maintenance, either due to failure of plant and equipment or due to the substances which are under pressure, escaping into the atmosphere.

**18. Entry into or work in confined spaces-**

i) The occupier of every factory to which the provisions of this schedule apply, shall ensure the observance of the following precautions before permitting any person to enter or work inside the confined spaces-

a) identify all confined spaces and the nature of hazards that are encountered in such spaces, normally or abnormally, and arrange to develop the most appropriate safeguards for ensuring the safety and health of persons entering into or working inside, the confined spaces;

b) regulate the entry or work inside the confined spaces through a 'permit to work system' which should include the safeguards so developed as required under sub-clause (a) above;

c) before testing the confined space for entry into or work, the place shall be rendered safe by washing or cleaning with neutralising agents; or purging with steam or inert gases and making adequate forced ventilation arrangements or such measure which will render the confined space safe;

d) shall arrange to carry out such tests as are necessary for the purpose by a competent person and ensure that the confined space is safe for the persons to enter or work. Such testing shall be carried out as often as is necessary during the course of work to ensure its continued safety;

e) shall arrange to educate and train the personnel who would be required to work in confined spaces about the hazards involved in the work. He shall also keep in readiness the appropriate and approved personal protective equipment including arrangements for, rescue resuscitation and first aid, and shall arrange supervision of the work at all times by a responsible and knowledgeable person.

ii) The manager shall maintain a log of all entry into or work in, confined spaces and such record shall contain the details of persons assigned for the work, the location of the work and such other details that would have a bearing on the log book so maintained shall be retained as long as the concerned workers are in service and produces to the Inspector when demanded.

**19. Maintenance work etc.-**

i) All the work connected with the maintenance of plants and equipment including cleaning of empty containers which have held hazardous substances used in the processes covered in this Schedule, shall be carried out under 'permit to work system' employing trained personnel and under the supervision of responsible person, having knowledge of the hazards and precautions required to deal with them.

ii) Maintenance work shall be carried out in such a manner that there is no risk to persons in the vicinity or to persons who pass by. If necessary, the place of such work shall be cordoned off or the presence of unconnected persons effectively controlled.

**20. Permit to work system-** The permit to work system shall inter-alia include the observance of the following precautions while carrying out any specified work to be subjected to the permit to work system-

a) all work subject to the permit to work system shall be carried out under the supervision of a knowledgeable and responsible person.

b) all parts of plant or machinery or equipment on which permit to work system is carried out, shall remain isolated from other parts throughout the period of permit to work and the place of work including the parts of plant, machinery shall be rendered safe by cleaning, purging, washing, etc.;

c) all work subject to the permit to work system shall have predetermined work procedures which integrate safety with the work. Such procedures shall be reviewed whenever any change occurs in material or equipment so that continued safety is ensured;

d) persons who are assigned to carry out the permit to work system shall be physically fit in all respects taking into consideration the demands and nature, of the work before entering into the confined space. Such person shall be adequately informed about the correct work procedures as well as the precautions to be observed while carrying out the permit to work system;

e) adequate rescue arrangements wherever considered necessary and adequate first aid, rescue and resuscitation arrangements shall be available in good working condition near the place of work while carrying out the permit to work system, for use in emergency;

f) appropriate and approved personal protective equipment shall be used while carrying out the 'permit to work system'.

g) after completion of work subject to the 'permit to work system' the person responsible shall remove all

the equipment and tools and restore to the original condition so as to prevent any danger while carrying out regular process.

**21. Safety sampling personnel-** The occupier shall ensure the safety of persons assigned for collecting samples by instructing them on the safe procedures. Such personnel shall be provided with proper and approved personal protective equipment, if required.

**22. Ventilation-** Adequate ventilation arrangements shall be provided and maintained at all times in the process area where dangerous or toxic or flammable or explosive substances could be evolved. These arrangements shall ensure that concentrations, which are either harmful or could result in explosion, are not permitted to be built up in the work environment.

**23. Procedures for meeting emergencies-**

I. The occupier of every factory carrying out the works covered in Appendix 'A', shall arrange to identify all types of possible emergencies that could occur in the processes during the course of work or while carrying out maintenance work or repair work. The emergencies so identified shall be reviewed every year.

II. The occupier shall formulate a detailed plan to meet all such identified emergencies including arrangements for summoning outside help for rescue and firefighting arrangements for making available urgent medical facilities.

III. The occupier shall send the list of emergencies and the details of procedures and plans formulated to meet the emergencies, to the Chief-Inspector-cum-Facilitator.

IV. The occupier shall arrange to install distinctive and recognisable warning arrangements to caution all persons inside the plant as well as the neighbouring community, if necessary, to enable evacuation of persons and to enable the observance of emergency procedures by the persons who are assigned emergency duties. All concerned must be well informed about the warning arrangements and their meaning. The arrangements must be checked for its effectiveness every month.

V. Alternate power supply arrangements shall be made and interlocked with the normal power supply system so as to ensure constant supply of power to the facilities and equipment meant for compliance with requirements of Paragraphs 10, 11, 12, 13, 14, 18, 22, and this paragraph of Part II, Part III, Part IV and Part V of this Schedule.

VI. The occupier shall arrange to suspend the further process work in a place where emergency is established and shall forthwith evacuate all persons in that area except workers who have been assigned emergency duties.

VII. All the employees of the factory shall be trained about the action to be taken by them including evacuation procedures during emergencies.

VIII. All emergency procedures must be rehearsed every three months and deficiencies, if any, in the achievement of the objectives shall suitably be corrected.

IX. The occupier shall arrange to have ten percent of the workers trained in the use of First Aid Fire Fighting appliances and in the rendering of specific hazards of the particular process.

X. The occupier shall furnish immediately on request the specific chemical identity of the hazardous substance to the treating physician where the information is needed to administer proper emergency or first-aid treatment to exposed persons.

**24. Danger due to effluents-**

I. Adequate precautions shall be taken to prevent the mixing of effluents from different processes and operations which may cause dangerous or poisonous gases to be evolved.

II. Effluents which contain or give rise in the presence of other effluents to poisonous gases shall be provided with independent drainage systems to ensure that they may be trapped and rendered safe.

### **PART-III**

#### **Fire and Explosion Risks**

**1. Sources of ignition including lighting installation:**

I. No internal combustion engine and no electric motor or other electrical equipment, and fittings and fixtures capable of generating sparks or otherwise causing combustion or any other source of ignition or any naked light shall be installed or permitted to be in the process area where there could be fire and explosion hazards.

II. Hot exhaust pipes shall be installed outside a building and other hot pipes or hot surface or surfaces likely to become hot shall be suitably protected.

III. The classification of work areas in terms of its hazard potential and the selection of electrical equipment or other equipment that could constitute a source of ignition shall be in accordance with the respective Indian

Standard.

IV. Where a flammable atmosphere may be prevalent or could occur, the soles of footwear worn by workers shall have no metal on them, and the wheels of trucks or conveyors shall be of conductive type.

V. All tools and appliances used for work in this area shall be of non-sparking type.

VI. Smoking in process areas where there are risks of fire and explosion shall be prohibited, and warning notices in the language understood by majority of workers shall be posted in the factory prohibiting smoking into specified areas.

## **2. Static Electricity-**

I. All machinery and plant, particularly, pipe lines and belt drives, on which static charge is likely to accumulate, shall be effectively earthed. Receptacles for flammable liquids shall have metallic connections to the earthed supply tanks to prevent static sparking. Where necessary, humidity shall be regulated.

II. Mobile tanker wagons shall be earthed during filling and discharge, and precautions shall be taken to ensure that earthing is effective before such filling or discharge take place.

**3. Lightning protection-** Lightning protection arrangement shall be fitted where necessary, and shall be maintained.

**4. Process heating-** The method of providing heat for a process likely to result in fire and explosion 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 flammable gas, vapour, or dust coming into contact with the flame, or exhaust gases, or other sources likely to cause ignition. Wherever possible, the heating arrangement shall be automatically controlled at a pre-determined temperature below the danger temperature.

## **5. Leakage of flammable liquids-**

I. Provision shall be made to confine by means of bund walls, dykes, sumps etc. Possible leakages from storage vessels containing flammable liquids.

II. Waste material in contact with flammable substances shall be disposed off suitably under the supervision of knowledgeable and responsible person.

III. Adequate and suitable fire-fighting appliances shall be installed in the vicinity of such vessels.

**6. Safety valves-** Every still and every closed vessel which gas is evolved or into which gas is passed, and in which the pressure is liable to rise above the atmospheric pressure, shall have attached to it a pressure gauge, and a proper safety valve or other equally efficient means to relieve the pressure. These appliances shall be maintained in good condition.

**7. Installation of pipe line etc.-** All pipelines carrying flammable or explosive substances shall be protected from mechanical damage and shall be examined by a responsible person once a week to detect any deterioration or defects, or accumulation of flammable or explosive substances, and record kept of any defects found and repairs made.

## **8. Firefighting systems-**

I. Every factory employing 500 or more persons and carrying out processes listed in Appendix 'A' shall provide-

a) Trained and responsible firefighting squad so as to effectively handle the firefighting and lifesaving equipment in the event of fire or other emergency. Number of persons in this squad will necessarily depend upon the size of risk involved, but in no case shall be less than 8 such trained persons to be available at any time. The squad shall consist of watch & ward personnel, fire pump man and departmental supervisors and operators trained in the operation of fire & emergency services.

b) Squad leaders shall preferably be trained in a recognized government institution and their usefulness enhanced by providing residence on the premises.

c) Squad personnel shall be provided with clothing and equipment including helmets, boots and belts.

II. A muster roll showing the duties allocated to each member of the squad shall be prepared and copies supplied to each leader as well as displayed in prominent places so as to be easily available for reference in case of emergency.

III. The pump man shall be thoroughly conversant with the location of all appliances. He shall be responsible for maintaining all firefighting equipment in proper working order. Any defect coming to his notice shall be immediately being brought to the notice of squad leader.

IV. As far as is practicable, the fire pump room and the main gate(s) of the factory be connected to all manufacturing or storing areas through telephone interlined and placed in a convenient location near such areas.

## **PART-IV Risks of Toxic Substances**

**1. Leakage-**

I. All plants shall be so designed and constructed as to prevent the escape of toxic substance. Where necessary, separate buildings, rooms, or protective structures shall be used for the dangerous stages of the process and buildings shall be so designed as to localize any escape of toxic substances.

II. Catch pits, bund walls, dykes, or other suitable safeguards shall be provided to restrict the serious effects of such leakages. Catch pits shall be placed below joints in pipelines where there is danger involved to maintenance and other workers from such leakage.

**2. Drainage-** Adequate drainage shall be provided and shall lead to collection tanks specifically provided for this purpose wherein deleterious material shall be neutralised, treated or otherwise rendered safe before it is discharged into public drains or sewers.

**3. Covering of vessels-**

I. Every fixed vessel or structure containing any toxic substance and not so covered as to eliminate all reasonable risk of accidental contact of any portion of the body of a worker, shall be so constructed as to avoid physical contact.

II. Such vessel shall, unless its edge is at least 90 centimetres above the adjoining ground or platform, be securely fenced to a height of at least 90 centimetres above such adjoining ground or platform.

III. Where such vessels adjoin and the space between them, clear of any surrounding brick or other work is either less than 45 centimetres in width or is 45 or more centimetres in width, but is not securely fenced on both sides to a height of at least 90 centimetres, secure barriers shall be so placed as to prevent passage between them:

Provided that sub-paragraph (II) of this paragraph shall not apply to –

a) saturators used in the manufacture of sulphate of ammonia; and

b) That part of the sides of brine evaporating pans which require raking, drawing or filling.

**4. Continuous exhaust arrangement-**

I. Any process evolving toxic vapour, gas, fume and substance shall have efficient continuous exhaust draught. Such arrangement shall be interlocked in the process control wherever possible.

II. In the event of failure of continuous exhaust arrangement means shall be provided to automatically stop the process.

**5. Work Bench-** All the work benches used in the processes involving the manipulation of toxic substances shall be graded properly and shall be made of smooth impervious surface which shall be washed daily after the completion of work.

**6. Waste disposal-**

I. There shall be provided a suitable receptacle made of non-absorbable material with a tightly fitting cover for depositing waste material soiled with toxic substances and the contents of such receptacle shall be destroyed by burning or using other suitable methods under the supervision of a responsible person.

II. During the course of manufacture, whenever any batch or intermediate products having toxicity is rejected on considerations of quality, sufficient precautions shall be taken to render them innocuous or otherwise treat them or inactivate them, before disposal.

III. The empty containers of toxic substances shall be cleaned thoroughly before disposal under the supervision of a responsible person.

**PART-V**

**Special Provisions**

**I. Special precautions for Nitro or Amino Processes-**

I. Unless the crystallized nitro or amino substances or any of its liquor is broken or agitated in a completely enclosed process so as not to give rise to dust or fume, such process shall be carried on under an efficient exhaust draught or by adopting any other suitable means in such a manner as to prevent the escape of dust or fume in the working atmosphere.

II. No part of the plant or equipment or implements which was in contact with nitro or amino compounds shall be repaired, or handled unless they have been emptied and thoroughly cleaned and decontaminated.

III. Filling of containers with nitro or amino compounds shall be done only by using a suitable scoop to avoid physical contact and the drying of the containers in the stove shall be done in such a manner that the hot and contaminated air from the stove is not drawn into the work room.

IV. Processes involving the steaming into or around any vessel containing nitro or amino compounds or its raw materials shall be carried out in such a manner that the steam or vapour is effectively prevented to be blown back into the working atmosphere.

- V. Suitable antidotes such as methylene blue injections shall always be available at designated places of work for use during emergency involving the poisoning with nitro or amino compounds.
- 2. Special precautions for chrome processes -**
- I. Grinding and sieving of raw materials in chrome processes shall be carried out in such a manner and under such condition as to secure effective separation from any other processes and under an efficient exhaust draught.
  - II. There shall be washing facilities located very near to places where wet chrome processes such as leaching, acidification, sulphate settling, evaporation, crystallisation, centrifugation or packing are carried out, to enable quick washing of affected parts of body with running water.
  - III. Weekly inspection of hand and feet of all persons employed in chrome process shall be done by a qualified nurse and record of such inspections shall be maintained in a form approved by the Chief Inspector of Factories.
  - IV. There shall be always available at designated places of work suitable ointment such as glycerine, vaseline etc. and water proof plaster in a separate box readily accessible to the workers so as to protect against perforation of nasal septum.
- 3. Special precautions for processes carried out in all glass vessels-**
- I. Processes and chemical reactions such as manufacture of vinyl chloride, benzyl chloride etc. which are required to be carried out in all glass vessels shall have suitable means like substantial wire mesh covering to protect persons working nearby in the event of breakage of glass vessel.
  - II. Any spillage or emission of vapour from the all-glass vessel due to breakage, shall be immediately inactivated or rendered innocuous by suitable means such as dilution with water or suitable solvents so as to avoid the risks of fire or explosion or health hazards.
- 4. Special precautions for processes involving chlorate manufacture-**
- I. Crystallisation, grinding or packing of chlorate shall not be done in a place used for any other purpose and such places shall have hard, smooth and impervious surface made of non combustible material. The place shall be thoroughly cleaned daily.
  - II. The personal protective equipment like overall, etc. provided for the chlorate workers shall not be taken from the place of work and they shall be thoroughly cleaned daily.
  - III. Adequate quantity of water shall be available near the place of chlorate process for use during fire emergency.
  - IV. Wooden vessels shall not be used for the crystallisation of chlorate or to contain crystallised ground chlorate.
- 5. Special precautions in the use of plant and equipment made from reinforced plastics-**
- I. A plant and equipment shall conform to appropriate Indian or any other National Standard.
  - II. Care shall be taken during storage, transport, handling and installation of plant and equipment to avoid accidental damage.
  - III. All plant and equipment shall be installed in such a way as to ensure that loads are distributed as intended in design or as per the recommendations of the manufacture.
  - IV. All pipe work shall be supported so that total loads local to the branches on the vessel or tank do not exceed their design values.
  - V. After erection all plant and equipment shall be subjected to a pressure test followed by a thorough examination by a competent person. The test and examination shall be as per relevant Standard. A certificate of test and examination by a competent person shall be obtained and kept available at site.
  - VI. All plant and equipment shall be subjected to periodical test and examination and record maintained as per Paragraph 15 in Part II of this Schedule.
  - VII. Plant and equipment during their use shall not be subjected to over filling or over loading beyond rated capacity.

**PART-VI**  
**Medical Requirements**

- I. **Decontamination facilities -** In all places where toxic substances are used in processes listed in Appendix 'A' the following provisions shall be made to meet an emergency:
- a) fully equipped first aid box;
  - b) readily accessible means of drenching with water persons, parts of body of persons, and clothing of persons who have been contaminated with such toxic and corrosive substances, and such means shall be as shown in the Table below:

| No. of persons<br>employed at any time | showers | No. of drenching showers                |
|--|---------|---|
| Upto 50 persons                        |         | 2                                       |
| Between 51 to 100                      |         | 3                                       |
| 101 to 200                             |         | 3 + 1 for every 50 persons there after  |
| 201 to 400                             |         | 5 + 1 for every 100 persons there after |
| 401 and above                          |         | 7 + 1 for every 200 persons there after |

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

**2. Occupational health centre-** In all the factories carrying out processes covered in Appendix 'A' there shall be provided and maintained in good order an occupational health centre with facilities as per scale laid down hereunder

- i) For factories employing upto workers
  - a) the services of a qualified medical practitioner hereinafter known as Factory Medical Officer, available on a retainership basis, in his notified clinic near to the factory for seeking medical help during emergency. He will also carry out the pre-employment and periodical medical examinations as stipulated in paragraph 4 of this Part.
  - b) A minimum of five persons trained in first aid procedures, amongst whom at least one shall always be available during the working period.
  - c) A fully equipped first aid box.
- ii) For factories employing 51 to 200 workers -
  - a) The occupational health centre shall have a room having a minimum floor area of 15 sq.m. with floors and walls made of smooth, hard and impervious surface and shall be adequately illuminated, ventilated and equipped.
  - b) A part-time Factory Medical Officer will be in overall charge of the Centre who shall visit the factory minimum twice in a week and whose services shall be readily available during emergencies.
  - c) There shall be one qualified and trained dresser-cum-compounder on duty throughout the working period.
  - d) A fully equipped first aid box.
- iii) For factories employing above 200 workers--
  - a) There shall be one full-time Factory Medical Officer for factories employing upto 500 workers and one more medical officer for every 1000 workers or part thereof.
  - b) The occupational health centre in this case shall have a minimum of 2 rooms each having a minimum floor area of 15 sq.m. with floors and walls made of smooth, hard and impervious surface and shall be adequately illuminated, ventilated and equipped.
  - c) There shall be one trained nurse, one dresser-cum-compounder and one sweeper-cum-ward boy throughout the working period.
  - d) The Occupational Health Centre in this case shall be suitably equipped to manage medical emergencies.

**3. Ambulance van -**

i. In every factory carrying out processes covered in Appendix 'A', there shall be provided and maintained in good condition, a suitably constructed and fully equipped ambulance van as per Appendix 'C' manned by a full-time driver-cum mechanic and a helper, trained in first aid for the purposes of transportation of serious cases of accidents or sickness unless arrangements for procuring such facility at short notice during emergencies have been made with the nearby hospital or other places. The ambulance van shall not be used for any purpose other than the purpose stipulated herein and will always be available near the Occupational Health Centre.

ii. The relaxation to procure Ambulance Van from nearby places provided for in sub-para (i) above will not be applicable to factories employing more than 500 workers.

**4. Medical examination-**

i. Workers employed in processes covered in Appendix 'A' shall be medically examined by a Factory Medical Officer in the following manner-

- a) Once before employment, to ascertain physical suitability of the person to do the particular job;
  - b) Once in a period of 6 months, to ascertain the health status of the worker, and
  - c) The details of pre-employment and periodical medical examinations carried out as aforesaid shall be recorded in the prescribed form.
- II. Any finding of the Factory Medical Officer revealing any abnormality or unsuitability of any person employed in the process shall immediately be reported to the Certifying Surgeon who shall in turn, examine the concerned workers and communicate his findings within 30 days. If the Certifying Surgeon is of the opinion that the person so examined is required to be suspended 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 person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated:
- Provided that the Certifying Surgeon on his own may examine any other worker whom he feels necessary to be examined for ascertaining the suitability of his employment in the process covered in Appendix 'A' or for ascertaining the health status of any other worker and his opinion shall be final.
- III. No person shall be newly appointed without the Certificate of Fitness granted by the Factory Medical Officer. If the Factory Medical Officer declares a person unfit for being appointed to work in the process covered in Appendix 'A', such person shall have a right of appeal to the Certifying Surgeon, whose opinion shall be final in this regard.
- IV. The worker suspended from the process owing to the circumstances covered in sub-para (2) shall 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.

#### **PART-VII** **Additional Welfare Amenities**

##### **1. Washing facilities-**

- I. There shall be provided and maintained in every factory for the use of all the workers taps for washing, at the rate of one every 15 persons including liquid soap in a container with tilting arrangements and nail brushes or other suitable means for effective cleaning. Such facilities shall be conveniently accessible and shall be kept in a clean and hygienic condition.
- II. If washing facilities as required above are provided for women, such facilities shall be separate for them and adequate privacy at all times shall be ensured in such facilities.

##### **2. Mess room facilities-**

- I. The occupier of all the factories carrying out processes covered in Appendix 'A' and employing 50 workers or more, shall provide for all the workers working in a shift mess room facilities which are well ventilated and provided with tables and sitting facilities along with the provision of cold and hygienic drinking water facilities.
- II. Such facilities shall include suitable arrangements for cleaning and washing and shall be maintained in a clean and hygienic condition.

##### **3. Cloakroom facilities-**

- I. The occupier of every factory carrying out any process covered in Appendix 'A' shall provide for all the workers employed in the process cloak room facilities with lockers. Each worker shall be provided with two lockers, one for work clothing and another separately for personal clothing and the lockers should be such as to enable the keeping of the clothing in a hanging position.
- II. The cloak room facilities provided in pursuance of sub-para (I) shall be located as far as possible near to the facilities provided for washing in pursuance of para 1(I). If it is not possible to locate the washing facilities the cloakroom facilities shall have adequate and suitable arrangements for cleaning & washing.

##### **4. Special bathing facilities-**

- I. The occupier of any factory carrying out the process covered under Appendix 'B' shall provide special bathing facilities for all the workers employed and such facilities shall be provided at the rate of 1 for 25 workers and part thereof, and shall be maintained in a clean and hygienic condition.
- II. The occupier shall insist all the workers employed in the processes covered in Appendix 'B' to take bath after the completion of the day's or shift work using the bathing facilities so provided and shall also effectively prevent such of those workers taking bath in any place other than the bathing facilities.
- III. Notwithstanding anything contained in sub-para (I) above, the Chief-Inspector-cum-facilitator may require in writing the occupier of any factory carrying out any other process for which his opinion bathing

facilities are essential from the health point of view, to provide special bathing facilities.

#### **PART-VIII**

##### **I. Duties of workers-**

- I. Every worker employed in the processes covered in Appendix 'A' and Appendix 'B' shall not make safety device or appliance or any guarding or fencing arrangement, inoperative or defective and shall report the defective condition of the aforesaid arrangements as soon as he is aware of any such defect.
- II. Before commencing any work, all workers employed in processes covered in Appendix 'A' shall check their workplace as well as the machinery, equipment or appliance used in the processes and report any mal-function or defect immediately to the supervisor or any responsible person of the management.
- III. All workers shall co-operate in all respects with the management while carrying out any work or any emergency duty assigned to them in pursuance of this schedule and shall always use all the personal protective equipment issued to them in a careful manner.
- IV. All workers employed in the processes covered in Appendix 'A' or Appendix 'B' shall not smoke in the process area or storage area. If special facilities are provided by the management only such facilities should be used.
- V. All workers employed in the processes covered in Appendix 'A' shall not remain in unauthorised place or carry out unauthorised work or improvise any arrangement or adopt short cut method or misuse any of the facilities provided in pursuance of the Schedule, in such a manner as to cause risk to themselves as well as or to others employed.
- VI. The workers shall not refuse undergoing medical examination as required under these rules.

#### **PART-IX**

##### **I. Restrictions on the employment of young persons under 18 years of age and women**

1. The Chief Inspector of Factories may by an order in writing, restrict or prohibit the employment of women and young persons under the age of 18, in any of the processes covered in Appendix 'A' of this schedule on considerations of health and safety of women and young persons.
2. Such persons who are restricted or prohibited from working in the process due to the order issued in pursuance of sub-para (1) above shall be provided with alternate work which is not detrimental to their health or safety.

#### **PART-X**

##### **Exemptions**

**I. Power of exemption-** The State Government or subject to the control of the State Government the Chief Inspector may exempt from the compliance with any of the requirements of this Schedule partly or fully, any factory carrying out processes covered in Appendix 'A', if it is clearly and satisfactorily established by the occupier that the compliance with any of the requirement is not necessary to ensure the safety and health of persons employed suitable and effective alternate arrangements are available to any of the requirements covered in this schedule.

##### **Appendix 'A'**

##### **Any works or that part of works in which-**

- a) the manufacture, manipulation or recovery of any of the following is carried on:-
  - i. sodium, potassium, iron, aluminium, cobalt, nickel, copper, arsenic, antimony, chromium, zinc, selenium, magnesium, cadmium, mercury, beryllium and their organic and inorganic salts, alloys, oxides and hydroxides;
  - ii. ammonia, ammonium hydroxide and salts of ammonium;
  - iii. the organic or inorganic compounds of sulphurous, sulphuric, nitric, nitrous, hydrochloric, hydrofluoric, hydroiodic, hydro sulphuric, hydrobromic, boric;
  - iv. cyanogen compounds, cyanide compounds, cyanate compounds;
  - v. phosphorus and its compounds other than organic phosphorus insecticides;
  - vi. chlorine
- b) hydrogen sulphide is evolved by the decomposition of metallic sulphides, or hydrogen sulphide is used in the production of such sulphides;
- c) bleaching powder is manufactured or chlorine gas is produced in chlor-alkali plants;
- d) i. gas tar or coal tar or bitumen or shale oil asphalt or any residue of such tar is distilled or is used in any

- process of chemicals manufacture;
- ii. tar based synthetic colouring matters or their intermediates are produced;
  - ey) nitric acid is used in the manufacture of nitro compounds;
  - fi) explosives are produced with the use of nitro compounds;
  - g) aliphatic or aromatic compounds or their metallic and non-metallic derivatives or substituted derivatives, such as chloroform, ethylene glycol, formaldehyde, benzyle chloride, phenol, methyl ethyl ketone peroxide, cobalt carbonyl, tungsten carbide etc. are manufactured or recovered.

#### **Appendix 'B'**

##### **Concerning Special Bathing Accommodation in pursuance of Para 4 of Part IV**

1. Nitro or amido processes
2. All chrome processes
3. Processes of distilling gas or coal tar or processes of chemical manufacture in which tar is used
4. Processes involving manufacture, manipulation, handling or recovery of cyanogens compound, cyanide compound, cyanate compounds
5. Processes involving manufacture of bleaching powder or production of chlorine gas in chloralkali plants
6. Manufacture, manipulation or recovery of nickel and its compounds
7. All processes involving the manufacture, manipulation or recovery of aliphatic or aromatic compounds or their derivatives or substituted derivatives.

#### **Appendix 'C'**

##### **Ambulance should have the following equipment:**

###### **General:**

- An wheeled stretcher with folding and adjusting devices, Head of the stretcher must be capable of being tilted upward;
- Fixed suction unit with equipment;
- Fixed oxygen supply with equipment;
- Pillow with case.
- Sheets;
- Blankets;
- Towels;
- Emesis bag;
- Bedpan;
- Urinal;
- Glass

###### **Safety equipment:**

- Flares with life of 30 minutes
- Flood lights;
- Flash lights;
- Fire extinguisher dry powder type;
- Insulated gauntlets.

###### **Emergency care equipment:**

###### **Resuscitation:**

- Portable suction unit.
- Portable oxygen unit.
- Bag-valve-mask, hand operated artificial ventilation unit;
- Airways;
- Mouth gags;
- Tracheostomy adapters;
- Short spine board;
- I.V. Fluids with administration unit;
- B.P. manometer;
- Cuff;
- Stethoscope

**Immobilisation**

- Long & short padded boards;
- Wire ladder splints;
- Triangular bandage;
- Long & short spine boards.

**Dressings:**

- Gauze pads - 4" x 4";
- Universal dressing 10" x 36";
- Roll of aluminium foils;
- Soft roller bandages 6" x 5 yards;
- Adhesive tape in 3" roll;
- Safety pins;
- Bandage sheets;
- Bum sheet.

**Poisoning:**

- Syrup of Ipecac; (Pre packeted in doses)
- Activated charcoal;
- Snake bite kit;
- Drinking water.

**Emergency Medicines:**

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

**Prohibition relating to women and young persons.** - No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

**Schedule B-XII**

**Manufacture of pottery & Ceramics**

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

- a) Unglazed or salt glazed bricks and tiles; and
- b) Architectural terra-cotta made from plastic clay and either unglazed or glazed with a leadless glaze only.

**2. Definitions** - For the purposes of this schedule -

- a) "pottery" includes earthenware, stoneware, porcelain, china tiles, and any other articles made from such clay or from a mixture containing clay and other materials such as quartz, flint, feldspar, and gypsum;
- b) "efficient exhaust draught" means localised ventilation effected by mechanical or other means for 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;
- c) "fettling" includes scalloping, towing, sand papering, sand sticking, brushing or any other process of cleaning of pottery ware in which dust is given off;
- d) "leadless glaze" means a glaze which does not contain more than one per cent of its dry weight, of a lead compound calculated as lead monoxide;
- e) "low solubility glaze" means a glaze which does not yield to dilute hydrochloric acid more than five per cent of its dry weight, of a soluble lead compound calculated as lead monoxide when determined in the manner described below:

A weighed quantity of the material which has been dried at 100 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 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 sulphide;

- f) sand or powdered flint or quartz" does not include natural sands; and
  - g) "potter's shop includes all places where pottery is formed by pressing or by any other process and all places where shaping, fettling or other treatment of pottery articles prior to placing for the biscuit fire is carried on.
- 3. Efficient exhaust draught-** 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 or other articles by pressure, except where--
    - i. this is done in a machine so enclosed as to effectually prevent the escape of dust; or
    - ii. the material to be sifted 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 saggars where handling and manipulation of ground and powdered flint, quartz, alumina 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 of Factories as adequate having regard to all the circumstances of the case;
  - h) fettling of biscuit ware which has been fired in powdered flint or quartz except where this is done in machines so enclosed as to effectually prevent the escape of dust;
  - i) where 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 effectually 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; grinding of tiles on a power-driven wheel unless an efficient water spray is used on the wheel;
  - l) lifting and conveying of materials by elevators and conveyors 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;
  - m) preparation or weighing out of flow material, lawning of dry colours, colour dusting and colour blowing;
  - n) mould making unless the bins or similar receptacles used for holding plaster of paris are provided with suitable covers; and
  - o) manipulation of calcined material unless the material has been made and remains so wet that no dust is given off.
- 4. Separation of 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 other wet processes:
- a) crushing and dry grinding or sieving of materials, fettling, pressing of tiles, drying of clay and green ware, loading and unloading of saggars; and
  - 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 pregnant women or lactating mother 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. Provision 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-**

- I. All practical measures shall be taken by damping or otherwise to prevent dust arising during cleaning of floors.
  - II. Damp saw-dust or other suitable material shall be used to render the moist method effective in preventing dust rising into the air during the cleaning process which shall be 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-**
- I. The occupier shall provide and maintain suitable overalls and hand coverings for all persons employed in process included under paragraph 3.
  - II. The occupier shall provide and maintain suitable aprons of a of a waterproof or similar material, which can be sponged daily, for the use of the dippers, dippers assistants, throwers, jolly workers, casters, mould makers and filter press and pug mill workers.
  - III. Aprons provided in pursuance of paragraph 10(II) shall be thoroughly cleaned daily by the wearers by sponging or other wet process. All overalls and head coverings shall be washed, cleaned and mended at least once a week, and this washing, cleaning or mending shall be provided for by the occupier.
  - IV. No person shall be allowed to work in emptying sacks of dust materials, weighing out and mixing of dusty materials and charging of ball mills and plungers without wearing a suitable and efficient dust respirator.
- 11. Washing facilities-**
- I. 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 3-
    - 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 clean water from taps or jets above the trough at intervals of not more than 60 centimetres; or
      - ii. at least one tap or stand pipe for every five such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 120 centimetres apart; and
    - b) a sufficient supply of clean towels made of suitable materials changed daily, with a sufficient supply of soap and nail brushes.
- 12. Time allowed for washing-** Before each meal and before the end of the day's work, at least ten minutes, in addition to the regular meal times, shall be allowed for washing to each person employed in any of the processes mentioned in paragraph 3.
- 13. Mess room-**
- I. There shall be provided and maintained for use of all persons remaining within the premises during the rest intervals, a suitable mess room providing accommodation of 0.93 square meter per head and furnished with-
    - a) a sufficient number of tables and chairs or benches with backrest;
    - b) arrangements for washing utensils;
    - c) adequate means for warming food; and
    - d) adequate quantity of drinking water.
  - II. 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.
- 14. 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 mentioned in paragraph 3 are carried on and no person shall remain in any such room during intervals for meals or rest.
- 15. Cloakrooms etc.-** There shall be provided and maintained for the use of all persons employed in any of the processes mentioned in paragraph 3.
- a) a cloakroom for clothing put off during working hours and such accommodation shall be separate from any mess room; and
  - b) Separate and suitable arrangements for the storage of protective equipment provided under paragraph 10.

**16. Medical facilities and records of examinations and tests-**

- I. The occupier of every factory in which manufacture of pottery is carried on, 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; and
  - b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a)
- II. The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector-cum-Facilitator

**17. Medical examination by Certifying Surgeon-**

- I. 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, hemoglobin content, stippling of cells and. 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
- II. All persons employed in any of the processes included under sub-paragraphs 3(a) and 3(n) shall be examined by a Certifying Surgeon once in every 3 calendar months. Those employed in any other processes mentioned in the remaining sub-paragraphs of paragraph 3 shall be examined by a Certifying Surgeon one in every 3 months. Such examinations in respect of all the workers shall include all the tests as specified in sub-paragraph (I) except chest X-ray which will be once in 3 years.
- III. The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form-XXIV. 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 (I) and (II), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in Form-XXIII.
- IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-facilitator.
- V. 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 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. The person so suspended from the process shall be provided with alternate placement facilities unless he fully is incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
- VI. No person who has been found unfit to work as said in sub-paragraph
- VII. 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.

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

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

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

**Schedule B- XIII**

**Compression of oxygen and hydrogen produced by the electrolysis of water.**

**1. Definition:** For the purpose of this schedule "Compression of Oxygen and Hydrogen" means any process by which oxygen or hydrogen is manufactured or evolved by electrolytic process or by steam iron process.

**2. Application:** This schedule applies in respect of factories or any part thereof in which the process of compression of oxygen and hydrogen is carried on.

**3. Situation of electrolyser plant room etc.:** The room in which electrolyser plant is installed shall be separate from the plant for storing and compressing oxygen and hydrogen. The room in which electric generator and the distribution panel are installed shall not communicate with any other room in which any process is carried on.

**4. Testing of purity—**

I. The purity of oxygen and hydrogen shall be tested by a competent person at least once in every shift at the following posts:

- a) in the electrolysis room.
- b) at the gas holder inlet; and
- c) at the suction end of the compressor.

II. The purity figures shall be entered in a register and signed by the persons carrying out such test: Provided, however, that if the electrolysis plant is fitted with automatic recorder of purity of oxygen and hydrogen with alarm lights, it shall be sufficient if the purity of gases is tested at the suction end of the compressor only.

**5. Restriction 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% at any time.

**6. Limit switch for gas holder-** The bell of any gas holder shall not be permitted to go within the 30 centimetres of its lowest position when empty and a limit switch shall be fitted to the gas holder in such a manner as to switch off the compressor motor when the limit is reached.

**7. Provision of negative pressure switch-** In addition to the limit switch in the gas holder, a sensitive negative pressure switch shall be provided in or adjacent to the suction main for hydrogen close to the gas holder and between the gas holder and the hydrogen compressor to switch off the compressor motor in the event of the gas holder being emptied to the extent as to cause vacuum.

**8. Purity of caustic soda-** The water and caustic soda used for making lye shall be chemically pure within pharmaceutical limits.

**9. Precautions against reversal of polarity-** Electrical connections at the electrolyser cells and at the electric generator terminals shall be so constructed as to preclude the possibility of 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 or at the electric generator terminals.

**10. 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.

**11. Use of flameproof 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.

**12. Prohibition of hot work-** No part of the electrolyser plant and the gas holders and compressor shall be subjected to welding, brazing, soldering or cutting until steps have been taken to remove any explosive substance from that part and render the part safe for such operations and after the completion of such operations no explosive substance shall be allowed to enter that part until the metal has cooled sufficiently to prevent risk of explosion.

**13. Repair, etc. to be done under supervision-** No work or operations, 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 repair shall be switched on/the electrolyser unless the same is 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.

**14. Checking of plant-** Every part of the electrolysis plant and the gas holders and compressor shall have a regular schedule of overhaul and checking and every defect noticed shall be rectified forthwith.

**Prohibition relating to women and young persons:** - No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

**Schedule B- XIV**

**Manipulation of stone or any other material containing free silica**

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. **Definitions-** For the purpose of this Schedule-
  - a) "manipulation" means crushing, breaking, chipping, dressing, grinding, sieving, mixing, grading or handling of stone or any other material containing free silica or any other operation involving such stone or material;
  - b) "Stone or any other material containing free silica" means a stone or any other solid material containing not less than 5% by weight of free silica.
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-
  - a) damping the stone or other material being processed,
  - b) providing water spray,
  - c) enclosing the process,
  - d) isolating the process, and
  - e) providing localised 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 Table 2 appended to Rule 64.

Provided that such measures as above said are not necessary if the process or operation itself is such that the level of dust created and prevailing does not exceed the permissible level referred to.

**4. Maintenance of floors-**

- i. All floors or places where fine dust is likely to settle on and whereon 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.
  - ii. The surface of every floor of every work room or place where any work is carried on or where any person has to pass during the course of his work, shall be cleansed 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 air borne in the process of cleaning.
5. **Prohibition relating young persons-** No pregnant women or lactating mother or 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 out.

**6. Medical Facilities and records of examinations and tests-**

- i. 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; and
  - ii) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause(i).
- ii. The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in separate register approved by the Chief-Inspector-cum-Facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.

**7. Medical examination by Certifying Surgeon-**

- i. 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 test and chest X-Ray - Posterior Anterior (PA) view to be compared with standard H.O Radiographs on Pneumoconiosis. 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
- ii. Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every twelve months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include all the tests as specified in sub-paragraph (i) except chest X-ray which will be carried out at least once in 3 years, which shall be read by a radiologist specialized in the field of

- reading ILO Radiographs on Pneumoconiosis.
- III. The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in **Form-XXIV**. 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 (I) and (II), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
- IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- V. 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 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. The person so suspended from the process shall be provided with alternate placement facilities unless he fully is incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
- VI. No person who has been found unfit to work as said in sub-paragraph (V) 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.
8. **Work place/Environment Monitoring:** The occupier to ensure work place/environment monitoring to be performed to determine magnitude of exposure/concentration to evaluate engineering controls, selecting respiratory protection, work practices and the need for medical surveillance.
- Exposure/concentration measurements should be made in the employee's actual breathing zone.
  - Total sampling time shall be at least 7 hours.
  - Work place/Environment Monitoring shall be repeated quarterly.
  - The report of dust sampling by occupier shall be made available to the public.
9. **Training/Awareness.** Workers shall be trained in the followings:
- Health effects of free silica dust exposure.
  - Operations and material that produce free silica dust hazards.
  - Engineering controls and work practice controls that reduce dust concentration.
  - The importance of good housekeeping and cleanliness.
  - Proper use of personal protective equipment such as respirators etc.
  - Personal hygiene practices to reduce exposure.
10. **Exemptions-** If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or in frequency 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 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.
11. **Prohibition relating to women and young persons:** - No pregnant woman or lactating mother or young person shall be employed or permitted to work in any kind of such works.

#### Schedule B- XV

#### **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. **Application-** This schedule shall apply to all factories or parts of factories in which any of the following processes is carried on: -
- breaking, crushing, disintegrating, opening, grinding, mixing or sieving of asbestos and any other processes involving handling and manipulation of asbestos incidental thereto;
  - all processes in the manufacture of asbestos textiles including preparatory and finishing processes;
  - making of insulation slabs or sections, composed wholly or partly of asbestos, and processes incidental thereto;
  - making or repairing of insulating mattresses, composed wholly or partly of asbestos, and processes incidental thereto;
  - manufacture of asbestos cardboard and paper;
  - manufacture of asbestos cement goods;

- g) application of asbestos by spray method;
  - h) sawing, grinding, turning, abrading and polishing in dry state of articles composed wholly or partly of asbestos;
  - i) cleaning of any room, vessel, chamber, fixture or appliance for the collection of asbestos dust; and
  - j) Any other processes in which asbestos dust is given off into the work environment.
- 2. Definition-** For the purpose of this Schedule-
- a) "asbestos" means any fibrous silicate mineral and any admixture containing actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite or any mixture thereof, whether crude, crushed or opened.
  - b) "asbestos textiles" means yarn or cloth composed of asbestos or asbestos mixed with any other material;
  - c) "approved" means approved for the time being in writing by the Chief-Inspector-cum-Facilitator;
  - 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.
  - e) "Efficient exhaust draught" means localised 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 out. No draught shall be deemed to be efficient which fails to control dust produced at the point where such dust originates;
  - f) "preparing" means crushing, disintegrating, and any other processes in or incidental to the opening of asbestos;
  - g) "Protective clothing" means overalls and head covering, which (in either case) will when worn exclude asbestos dust.
- 3. Demolition of plants or structures-** No person shall carry out any demolition of plants or structures containing friable asbestos insulation material and removal of asbestos from building or structures in which asbestos is liable to become air-borne, unless he is recognized and duly empowered by the Chief-Inspector-cum-Facilitator as qualified to carry out such work in accordance with the provisions of this Schedule.
- 4. 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.
- 5. Exhaust draught-**
- I. 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;
      - iv. machines used for the sawing, 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 loose asbestos is delivered or passes;
    - d) work-benches for asbestos waste sorting or for other manipulation or 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.
  - II. Exhaust ventilation equipment provided in accordance with sub-paragraph (I) shall, while any work of maintenance or repair to the machinery, apparatus or 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 work place.
  - III. Arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air of any work room.
  - IV. 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.
- 6. Testing and examination of ventilating systems -**

- I. 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.
  - II. A register containing particulars of such examination and tests and the state of the plant and the repairs or alternations (if any) found to be necessary shall be kept and shall be available for inspection by an Inspector-cum-Facilitator.
7. **Segregation in case of certain process** - Mixing or blending of asbestos by the hand, 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. **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 in the factory except in such receptacles or in totally enclosed system of conveyance.
9. **Asbestosacks-**
- I. All sacks used as receptacles for the purpose of transport of asbestos within the factory shall be constructed of impermeable materials and shall be kept in good repair.
  - II. A sack which has contained asbestos shall not be cleaned by hand beating but by a machine, complying with paragraph 4.
10. **Maintenance of floors and workplaces -**
- I. In every room in which any of the requirements of this schedule apply--
    - a) the floors, work-benches, 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
    - 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, which would obstruct the proper cleaning of the floor.
  - II. The cleaning as mentioned in sub-rule (I) shall so far as is practicable, be carried out by means of vacuum cleaning equipment so designed and constructed and so used that asbestos dust neither escapes nor is discharged into the air of any work place.
  - III. When the cleaning is done by any method other than that mentioned in sub paragraph (II), the persons doing cleaning work and any other person employed in that room shall be provided with respiratory protective equipment and protective clothing.
  - IV. The vacuum cleaning equipment used in accordance with provisions of subparagraph (II), shall be properly maintained and after each cleaning operation, its surfaces kept in a clean state and free from asbestos waste and dust.
  - V. Asbestos waste shall not be permitted to remain on the floors or other surfaces at the work place 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.
11. **Breathing apparatus and protective clothing-**
- I. An approved breathing apparatus and protective clothing shall be provided and maintained in good conditions for use of every person employed--
    - a) in chambers containing loose asbestos;
    - b) in cleaning, dust settling or filtering chambers of apparatus;
    - c) in cleaning the cylinders, including the defer cylinders, or other parts of a carding machine by means of hand-strikes;
    - d) in filling, beating or leveling in the manufacture or repair of insulating mattresses; and
    - e) in any other operation or circumstances in which it is impracticable to adopt technical means to control asbestos dust in the work environment within the permissible limit.
  - II. 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 rule and for the storage of such apparatus and clothing when not in use.
  - III. All breathing apparatus and protective clothing washing not in use shall be stored in the accommodation provided in accordance with sub-rule (II) above.
  - IV. All protective clothing in use shall be de-dusted under an efficient exhaust draught or by vacuum cleaning and shall be washed at suitable intervals. The cleaning schedule and procedure should be such as to ensure the efficiency in protective the wearer.

- V. All breathing apparatus shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.
- VI. A record 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-cum-Facilitator.
- VII. No person shall be employed to perform any work specified in sub-paragraph (I) 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.
- VIII. No breathing apparatus provided in pursuance of sub-paragraph (I) 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.
- 12. Separate accommodation for personal clothing-** A separate accommodation shall be provided in a conveniently accessible position for all persons employed in operation to which this schedule applies for storing of personal clothing. This should be separated from the accommodation provided under sub-paragraph (II) of paragraph 10 to prevent contamination of personal clothing.
- 13. Washing and bathing facilities-**
- I. 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.
  - II. The washing places shall have standpipes placed at intervals of not less than one metre.
  - III. Not less than one half of the total number of washing places shall be provided with bath rooms.
  - IV. 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-cum-Facilitator.
  - V. Sufficient supply of soap and nail brushes shall be provided.
- 14. Mess room-**
- I. There shall be provided and maintained for the use of all worker employed in the factory covered by this schedule, remaining on the premises during the rest intervals, a suitable mess room which shall be furnished with:
    - a) sufficient tables and benches with back rest, and
    - b) adequate means for warming food.
  - II. The mess room shall be placed under the charge of a responsible person and shall be kept clean.
- 15. Prohibition of employment of women or young persons-** No pregnant women or lactating mother or young person shall be employed in any of the process covered by this schedule.
- 16. 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.
- 17. Cautionary notices-**
- I. Cautionary notices in the form specified in the appendix 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,
    - c) Prohibition of entry to unauthorised persons, or authorised persons but without protective equipment.
  - II. Such notices shall be in the language understood by the majority of the workers.
- 18. Air monitoring -** To ensure the effectiveness of the control measures, monitoring of asbestos fibre 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.
- 19. Medical facilities and records of medical examinations and tests-**
- I. The occupier of every factory or part of the factory to which the schedule applied, 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-cum-Facilitator;
    - b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
  - II. The record of medical examinations and appropriated 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-cum-Facilitator.

**20. Medical examination by Certifying Surgeon-**

- I. 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 examination shall include pulmonary function test and chest X-Ray - Posterior Anterior (PA) view to be compared with standard ILO Radiographs on Pneumoconiosis. 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.
- II. Every worker employed in the process referred to sub-paragraph (I) 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 specified in sub-paragraph (I) except chest X-Ray which shall be read by a radiologist specialized/trained in the field of reading ILO Radiographs on Pneumoconiosis which will be carried out once in 3 years.
- III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in Form-XXIV. 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 (I) and (II), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in Form-XXIII.
- IV. The certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.
- V. 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. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
- VI. No person who has been found unfit to work as said in sub-paragraph (V) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after future examination, again certifies him fit for employment in these processes.

**21. Exemptions-** If in respect of any factory, the Chief-Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or in frequency 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-cum-Facilitator 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.

**22. Pictorial cautionary notice -**

1. Asbestos/asbestos dust which is used, handled or manipulated in this factory is a very hazardous to health
2. Prolonged exposure to asbestos dust may lead to serious diseases like lung fibrosis (Asbestosis) and lung cancer
3. Entry is prohibited without protective equipment.
4. Wear the Protective Equipments to safeguard your health.
5. No food stuffs or drinks shall be brought into this area.
6. Smoking, eating food or drinking and chewing tobacco in this area is prohibited.
7. Scrupulous cleanliness shall be maintained in this area.
8. Dry sweeping in this area is prohibited. Any spillage of asbestos shall be cleaned by vacuum cleaning only.
9. A sack or container contaminated with asbestos shall not be cleaned by hand and is to be disposed off by an appropriate method
10. All protective equipments and clothing shall be re-dusted by vacuum cleaning and stored in an appropriate place provided for the purpose.
11. Entry of unauthorized persons or authorized persons without proper protective equipments is prohibited.
12. Report for the prescribed medical examinations and tests regularly to protect your own health.
13. Report to your doctor immediately if you suffer from persistent breathlessness, chest tightness, or cough

**Schedule B- XVI**  
**Handling or manipulation of corrosive substances**

1. **Definitions-** For the purposes of this schedule -
  - 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, carboric 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 corrosive substance.
2. **Flooring-** The floor of every workroom of a factory in which corrosive operation is carried on shall be made of impervious, corrosion and fire resistance material and shall be so constructed as to prevent collection of 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-**
  - a) The occupier shall provide for the use of all persons employed in any corrosive operation suitable protective wear for hands and feet, suitable aprons, face shields, chemical safety goggles, and respirators. The equipment shall be maintained in good order and shall be kept in 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 when ever necessary.
  - b) 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 centimetres, 120 centimetres and 60 centimetres respectively or such dimensions as are approved by the Chief-Inspector-cum-facilitator 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 any of the operation mentioned in clause 2 above is carried out and where it can be easily and conveniently read by the workers. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice so displayed.

**Prohibition relating to women and young persons:** - No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

**CAUTIONARY NOTICE**  
**DANGER**

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

6. **Transport -**
  - I. 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.
  - II. 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.
  - III. Containers for corrosive substances shall be plainly labelled.
7. **Devices for handling corrosive-**
  - I. Tilting, lifting or pumping arrangements shall be used for emptying jars, carboys and other containers of corrosives.
  - II. Corrosive substance shall not be handled by bare hands but by means of a suitable scoop or other device.

8. **Opening of valves** - Valves fitted to containers holding a corrosive substance shall be opened with great care. If they do not work freely, they shall not be forced open. They shall be opened by a worker suitably trained for the purpose.
9. **Cleaning tanks, stills etc.-**
  - I. In cleaning out or removing residues from stills 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).
  - II. 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 23 of the Code shall be taken to ensure the worker's safety.
  - III. 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 methods.
10. **Storage-**
  - I. Corrosive substances shall not be stored in the same room with other chemicals, such as turpentine, carbides, metallic powders and combustible materials, the accidental mixing with which may cause a reaction which is either violent or gives rise to toxic fumes and gases.
  - II. Pumping or filling overhead tanks, receptacles, vats or other containers for storing corrosive substances shall be so arranged that there is no possibility of any corrosive substance overflowing and causing injury to any person.
  - III. Every container having a capacity of twenty litres or more and every pipeline, valve, and fitting used for storing or carrying corrosive substances 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-cum-Facilitator whenever required.
11. **Fire extinguishers and firefighting equipment-** An adequate number of suitable types of fire extinguishers or other 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.
12. **Exemption-** If in respect of any factory on 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 B- XVII**  
**Processing of Cashewnut**

1. **Application:** - This schedule shall apply to all factories in which roasting, scrubbing and shelling of cashewnuts or extracting oil from cashewnuts or cashewnut shells are carried on.
2. **Prohibition of employment of women and young persons:** - No pregnant women or lactating mother or young person shall be employed in any of the processes specified in paragraph 1 except in shelling of roasted cashewnuts.
3. **Protective clothing and equipment:** - The occupier shall provide and maintain for the use of all persons employed in roasting and scrubbing of cashewnuts or extracting oil from cashewnuts or cashewnut shells.
  - (a) suitable rubber or washable leather gloves;
  - (b) suitable type of impervious aprons with sleeves to cover body down to knees and shoulders; and
  - (c) suitable type footwear to afford protection to feet and legs against cashewnut oil; and for the workers employed in cashewnut shelling, either-
    - (d) a protective ointment containing 10% of shellac, 5% of alcohol, 10% of sodium perborate, 5% of carbital and 20% talc; or
    - (e) sufficient quantity of kaolin and coconut oil; and
    - (f) any other material or equipment - which the Chief Inspector of Factories may deem to be necessary for

the protection of the workers.

4. **Use of protective clothing and equipment:** - Every person employed in processes specified in paragraph 1 shall make use of protective clothing and equipment supplied and arrangements shall be made by the occupier to supervise the use, maintenance and cleanliness.
5. **Disposal of shells, ashes, or oil of cashewnut:-** (1) shells, ashes or oil of cashewnut shall not be stored in any room in which workers are employed and shall be removed at least twice a day to any pit or enclosed place in the case shells and ashes and to closed containers kept in a separate room in the case of oil  
(1) No worker shall be allowed to handle shells or oil of cashewnuts without using the protective clothing or equipment provided under paragraph 3 above.
6. **Floors of workrooms:** - The floor of every workroom in which processes specified in paragraph 1 are carried on, shall be of a hard material so as to be smooth and impervious and of even surface and shall be cleaned daily, and spillage of any cashewnut oil in any workroom shall be washed with soap and cleaned immediately.
7. **Seating accommodation:** - Workers engaged in shelling of cashewnuts shall be provided with adequate seats or work benches which shall be cleaned daily.
8. **Mess room:** - (1) There shall be provided and maintained for the use of all person employed in processes specified in paragraph 1, a suitable rest-room furnished with sufficient tables and chairs or benches.  
(2) Separate lockers shall be provided where food, etc. shall be stored by workers before it is consumed in the rest room.
10. **Food, drinks, etc. prohibited in workrooms:** - No food, drink, pan, supari or tobacco shall be brought or consumed by any worker in any room in which processes specified in paragraph 1 are carried out and no person shall remain in any such room during intervals for meals or rest.
11. **Washing facilities:-** Where roasting, scrubbing and shelling of cashewnuts or extracting oil from cashewnut or cashewnut shells is carried on, there shall be provided and maintained in a clean state and good repair washing facilities, with a sufficient supply of soap, coconut oil, nail brushes and towels at the scale of one tap or stand pipe for every 10 workers, and the taps or stand pipes shall be spaced not less than 1.2 meters apart.
12. **Time allowed for washing:** - Before each meal and before the end of the day's work, at least ten minutes, in addition to the regular meal times, shall be allowed for washing, to each person employed in processes specified in paragraph 1.
13. **Smoke or gas produced by roasting cashewnuts:-** Where smoke or gas is produced in the operation of roasting, provision shall be made for removing the smoke or gas through a chimney of sufficient height and capacity or by such other arrangements as may be necessary to prevent the gas or smoke escaping into the air or any place in which workers are employed.
14. **Storage of protective equipment:** - A suitable room or a portion of the factory suitably partitioned off, shall be provided exclusively for the storage of all the protective equipment supplied to the workers and no such equipment shall be stored in any place other than the room or places so provided.
15. **Medical facilities and records of examinations and tests:** - (1) The occupier of every factory to which this 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-cum-Facilitator, and
  - (b) provide to the medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2) The said medical practitioner shall inspect daily the hands and feet of all the persons employed in the processes specified in paragraph 1.
  - (3) The record of such examinations carried out by the 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.
  - (4) The first-aid box maintained shall also contain Burrough's Solution (1.20) and aqueous solution of tannic acid (10%) for treatment of cases of dermatitis.
16. **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 examinations shall include skin test for dermatitis and 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 examinations shall wherever the Certifying Surgeon considers appropriate, include asking test for dermatitis.

- (3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form-XXIV. 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-paragraph (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-XXIII.
  - (4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - (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 process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
  - (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.
17. **Exemption:** - The Chief-Inspector-cum-Facilitator may grant exemptions from the operation of any of these where he is satisfied that their observance is not necessary for safeguarding the health of the workers.

#### Schedule B- XVIII

#### **Manufacture or manipulation of carcinogenic dye intermediates**

1. **Application-** The schedule shall apply in respect of all factories or any part thereof where processes in which the process of manufacturing or manipulation of a carcinogenic Dye Intermediates (here in referred to as the said manufacturing processes) is carried on.

Provided that Paragraphs 25 and 26 shall only to a process involving manufacturing, manipulation of compounds mentioned in Appendix B (here in referred to as the said manufacturing processes B)

#### **PART-I**

2. **Definition-**

- a) For the purpose of this schedule a nitro or amino compounds means a nitrated or aminated compound of aromatic hydrocarbons mentioned in Appendix A or B attached thereto.
  - b) "Approved" means approved by Chief-Inspector-cum-facilitator.
  - c) "Efficient exhaust draught" means localised ventilation effected by mechanical means for the removal of gas, vapour, dust or fume 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 originates; and
  - d) Manipulation shall include mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping, handling, using or chemical processing of a nitro-amino compound.
  - e) "Airline respirator" means a helmet or face piece with necessary connections by means of which a person using it in a poisonous or irritant atmosphere breathes ordinary air or any suitable apparatus approved in writing by Chief-Inspector-cum-facilitator.
3. **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 conveniently read. Arrangements shall be made by the manager to instruct periodically all such workers regarding the precautions contained in the cautionary placards
4. **Prohibition relating to employment of women and young persons-** No pregnant women or lactating mother or young person shall be employed or permitted to work in any room in which the said processes are carried on.
5. **Air space-** in every room in which the said manufacturing process is carried on there shall at least 15 cubic-meters of air space excluding any space occupied by machinery equipments or any other article for each person employed there in and in computing this air space no height over 4.25 meters shall be taken into account.
6. **Efficient exhaust draught-** Unless the said process is completely enclosed so as to not to give rise to

- dust or fume it shall not be carried on without the use of an efficient exhaust draught when a nitro amino compound;
- a) Is introduced into a tank, hopper, machine, or container or filled into cartridge; or
  - b) Is ground, crushed, mixed, sieved, or blended
7. **Floors of workroom-** The floor of every workroom 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 gutter and,
  - d) Thoroughly washed daily with the drain water being led into a sewer through a closed channel.
8. **Work benches-** work benches on which a nitro or amino compound is manipulated shall-
- a) Have a smooth impervious surface preferably of stainless steel, and
  - b) Be washed daily with hose-pipe or cleaned by means of suction cleaning apparatus at the time when no other work is carried on there at.
9. **Waste disposal-**
- I. There shall be provided a suitable receptacle made of non-absorbable material with a tightly fitting cover for depositing waste material like cloth paper or other material soiled with a nitro or amino compound.
  - II. Such receptacle shall be destroyed by burning or using other suitable methods under the supervision of a responsible person.
10. **Disposal of empty containers-** Empty containers used for holding compounds included under Appendix-A shall be thoroughly cleaned of their contents and treated with an inactivating agent before being discarded.
11. **Decontamination of Pits, Tanks etc.-**
- a) Before a worker enters a pit, tank, kettle or any other confined space which contains a nitro or amino compound it shall be thoroughly washed and cleaned.
  - b) No part of the plant which contains nitro or amino compounds shall be repaired or opened for repairs unless it has been emptied of such compounds and thoroughly cleaned & decontaminated.
  - c) Records of such treatments shall be maintained in a register approved by the Chief Inspector and the register shall be made available for inspection when required by Inspector-cum-Facilitator
12. **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
13. **Protective wears-** The occupier shall provide, maintain clean and in good condition protective clothing and other equipments as specified in the table below;

**TABLE**  
**Process Protective clothing and other equipments**

**For manipulation of compounds Mentioned in Appendix-A**

- (A) Long trousers and shirts or overalls with full sleeves and head coverings. The shirt or overall shall cover the neck completely; and
- (B) Rubber hand gloves, rubber aprons, rubber gum boots and airline.

**For manipulation of compounds Mentioned in Appendix-B**

- (A) White clean clothing mentioned in (A) as above in addition to white clean shirts. Singlet and protective equipments as mentioned in (B) above.
- (B) White long sleeve apron.

1. **Instructions regarding risk-** Every worker on his first employment in the said processes shall be fully instructed on the properties of the toxic chemicals to which he is likely to be exposed to, of the dangers involved and the precautions to be taken. Workers shall also be instructed on the measures to be taken to deal with an emergency.
2. **Medical facilities and records of examinations and tests-**
  - I. the occupier of every factory to which this 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-cum-Facilitator; and

- b) Provide to the medical practitioner all the necessary facilities for the purpose referred to in clause (a)
  - H. The record of such examinations carried out by the medical practitioner shall be maintained in a separate register approved by the Chief Inspector-cum-Facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- 3. Medical examination by certifying Surgeon-**
- I. 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 examinations shall include skin test for dermatitis and 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.
  - II. Every worker employed in a manganese process shall be re-examined 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 sub-paragraph (I).
  - III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in **Form-XXIV**. 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-paragraph (I) and (II), including the nature and the results of this test, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
  - IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector
  - V. 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 process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
  - VI. No person who has been found unfit to work as said in sub-paragraph (V) 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.
- 4. Washing and bathing facilities-**
- I. 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:
    - 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 stand pipe for every five such workers;
    - b) 50 percent of the stand pipes 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;
    - c) The washing and bathing facilities shall be in close proximity of the area housing the said processes;
    - d) Clean towels shall be provided individually to each worker; and
    - e) in addition to the taps mentioned under clause (a), one stand pipe, in which warm water is made available, shall be provided on each floor.
  - II. Arrangement shall be made to wash factory uniforms and other work clothes every day.
- 5. Washing and bathing-**
- a) All the workers employed in the said manufacturing process shall carefully wash their hands and faces before taking food or leaving factory.
  - b) Bath register- the workers employed in the said manufacturing process shall take bath at factory premises and will enter their names in the bath register as token of having done so.
- 6. Food, drinks, 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.
- 7. Cloakroom-** 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-
- a) a cloakroom with lockers having two compartments - one for street clothes and the other for work clothes, and

- b) a place separate from the locker room and the mess room, for the storage of protective equipment provided under paragraph 7. The accommodation so provided shall be under the care of a responsible person and shall be kept clean.
8. **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, a mess room which shall be furnished with tables and benches and provided with suitable means for warming food. The mess room shall be placed under the charge of a responsible person and shall be kept clean.
9. **Time allowed for washing-** Before each meal and the end of the day at least 10 minutes addition to the regular interval shall be allowed for washing to each person who has been employed in the said process.
10. **Drying stoves-**
- Every drying stove shall be efficiently ventilated to the outside air in such a manner that hot air from stove shall not be drawn into any work room.
  - No person shall enter into stove to remove the contents until a free current of air has been passed through by mechanical means.
11. **Non-sparking tools-** non sparking tools shall be provided for the purpose of cleaning or repairing machinery or operating any process where vapours of betanaphthyl amine are evolved.
12. **Testing of atmosphere-** Amines in the atmosphere of the work room where the manufacturing process is carried on shall be estimated once in every week and records of such estimations shall be made available when required by an Inspector-cum-Facilitator

#### PART-II

13. **Separation of process-** the said manufacturing process "B" shall be carried on in rooms which shall not communicate with the other rooms except through a passage open entirely to outside atmosphere.
14. **Limitation of exposure-**
- no worker under the age of 18 years shall be engaged in the factory for the said manufacturing process "B" for the first time after the date on which these rules come into force.
  - before the end of the day at least one hour shall be allowed for bathing to each person who is employed in the said manufacturing process "B" including the time allowed under paragraph 22.
15. **Exemptions-** 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 is not necessary for the 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.

#### APPENDIX-A

[SEE PARAGRAPHS 2, 10, 13]

The benzenes, Toulenes, Xylenes, having undergone nitration once or several times (nitro, dinitro and trinitro benzene and its homologues) and chlorinated compounds, naphthalenes, having undergone nitration once or several times, anilines and its homologues (toludine, Nlidine, cumidine) anisidine, phenetidine and their chlorinated nitrated and alkylated compounds (dimethylamine, toluendiamine, toluidinephenylhydrazine, tolylhydrazine)

#### APPENDIX-B

[SEE PARAGRAPHS 2 & 13]

1. Alpha naphthylamine
2. Beta naphthylamine
3. Benzidine and its salts
4. Dianisidine
5. Toludine
6. Dichlorobenzidine

#### APPENDIX - C

##### CAUTIONARY PLACARD/NOTICE

##### *Carcinogenic dye intermediates*

1. Nitro and amino compounds are aromatic hydro carbons are dangerous. In this factory you have to

- handle them carefully.
2. All items of protective wear provided should be made use of to safeguard your health.
  3. Maintain cleanliness at all times. Before meals wash hands and feet. A bath before leaving the factory is essential taking care to wash the hands well.
  4. If any chemicals fall on your body wash it off immediately with soap and water. Change clothing at once. If soap with a cytotrimino compound contact the appointed doctor immediately.
  5. Do not handle any nitro or amino compounds bare hand. Use a long handle scoop.
  6. Avoid alcoholic drinks as these can cause risk of poisoning.
  7. In case of illness contact the factory manager and the appointed doctor.
  8. Don't chew, eat, drink or smoke in the work room or with soiled hands- Keep food and drinks away from the work place.
  9. If you work with betanaphthylamine or benzedine or its salt alphanaphthylamine or dianisidine:
    - a) Remember the serious effects will follow after a number of year if great care is not taken to observe absolute cleanliness of body, close, machinery and tools
    - b) At meal time wash face and hands twice with soap and water to remove all chemicals; wear a long sleeve clean apron while eating
  10. Before leaving the factory take a bath using soap and water twice after this put on your home clothes.

#### **Schedule B- XIX**

#### **Process of extracting oils and fats from vegetables and animal sources in solvent extraction plants**

1. **Definitions-** For the purposes of this schedule—
  - a) "solvent extraction plant" means a plant in which the process of extracting oils and fats from vegetable and animal sources by use of solvents is carried on;
  - b) "solvent" means a flammable liquid such as pentane, hexane and heptane use for the recovery of vegetable oils.
  - c) "flame-proof enclosure" as applied to electrical machinery or apparatus means an enclosure that will withstand, when covers or other access doors are properly secured, 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;
  - d) "competent person" for the purpose of this schedule shall be at least a member of the Institution of Engineers (India) or an Associate Member of the said Institution with 10 years' experience in a responsible position as may be approved by the Chief Inspector -cum-Facilitator: Provided that a graduate in mechanical engineering or chemical technology with specialised 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 are equivalent to the qualifications aforesaid.

2. **Location and layout—**

- i. No solvent extraction plant shall be permitted to be constructed or extended to within a distance of 30 meters from the nearest residential locality.
- ii. A 1.5-meter-high continuous wire fencing shall be provided around the solvent/extraction plant upto a minimum distance of 15 meters from the plant.
- iii. No person shall be allowed to carry any matches or an open flame or fire inside the area round by the fencing.
- iv. Boiler houses and other buildings where open flame processes are carried on shall be located at least 30 meters away from the solvent extraction plant; If god owns and preparatory processes are at a distance of less than 30 metres from the solvent extraction plant, these shall be at least 15 meters distant from the plant, and a continuous barrier wall of non-combustible material 1.5 meters high shall be erected at a distance of not less than 15 meters from the solvent extraction plant so that it extends to at least 30 meters of vapour travel around its ends from the plant to the possible sources of ignition.

3. **Electrical Installations—**

- i. All electrical motors and wiring and other electrical equipment installed or housed in solvent extraction plant shall be of flame proof construction.
- ii. All metal parts of the plant and building including various tanks and containers where solvents are

stored or are present and all parts of electrical 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. **Restriction on smoking-** Smoking shall strictly be prohibited within 15 meters distance from solvent extraction plant. For this purpose, "No smoking" signs shall be permanently displayed in the area.
5. **Precautions against friction-**
  - I. All tools and equipment including ladders, chains and other lifting tackle required to be used in solvent extraction plant shall be of non-sparking type.
  - II. No machinery or equipment in any solvent extraction plant shall be belt driven, unless the belt used is of such a type that it does not permit accumulation of static electricity to a dangerous level.
  - III. 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 -**
  - I. Adequate number of portable fire extinguishers suitable for use against flammable liquid fires shall be provided in the solvent extraction plant.
  - II. An automatic water spray sprinkler system on a wet pipe or open-head deluge system with sufficient supply of storage water shall be provided over solvent extraction plant and throughout the building housing such plant.
7. **Precautions against power failure-** Provision shall be made for the automatic cutting off of steam in the event of power failure and also for emergency overhead water supply for feeding water by gravity to condensers which shall come into play automatically with the power failure.
8. **Magnetic Separators-** Oil cake shall be fed to the extractor by a conveyer through a hopper and a magnetic separator shall be provided to remove any pieces of iron during pressure in the event of fire.
9. **Venting-**
  - I. Tanks containing solvents shall be protected with emergency venting to relieve excessive internal pressure in the event of fire.
  - II. All emergency relief vents shall terminate at least 6 meters above the ground and be so located that vapours will not re-enter the building in which solvent extraction plant is located.
10. **Waste water-** Process waste water shall be passed through a flash evaporator to remove any solvent before it is discharged into a sump which should be located within the fenced area but not closer than 8 meters 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-**
  - I. Solvents shall not be stored in an area covered by solvent extraction plant except in small quantities which shall be stored in approved safety cans.
  - II. 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.
  - III. 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.
13. **Examination and repairs-**
  - I. 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-cum-Facilitator with his observation as to whether or not the plant is in safe condition to work.
  - II. No repairs shall be carried out to the machinery or plant except under the direct supervision of the competent person.
  - III. Facility shall be provided for purging the plant with inert gas or steam before opening for clearing or repairs and before introducing solvent after repairs.
14. **Operating personnel-** The operation of the plant and machinery in the solvent extraction plant shall be in the charge of such duly qualified and trained persons as are certified by the competent person to be fit for the purpose and no other person shall be allowed to operate the plant and machinery.
15. **Employment of women and young persons-** No pregnant women or lactating mother or young person shall be employed in the solvent extraction plant.

16. **Vapour detection-** A suitable type of flameproof and portable combustible gas indicator shall be provided and maintained in good working order and a schedule of routine sampling of atmosphere at various locations as approved by the Chief-Inspector-cum-Facilitator shall be drawn out and entered in a register maintained for the purpose.
17. **Exemption-** If in respect of any factory, the Chief Inspector cum Facilitator 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 is not necessary for the protection of the workers in the factory, the Chief Inspector-cum-Facilitator 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 conditions, if any, as he may specify therein.

#### Schedule B- XX

#### **Manufacture or manipulation of manganese and its compounds**

1. **Definitions -** For the purposes of this schedule -
  - a) "manganese process" means processing, manufacture or manipulations of manganese or any ore or any mixture containing manganese;
  - b) "first employment" means first employment in any manganese process and includes also re-employment in any manganese process followed any cessation of employment for continuous period of 3 calendar months.
  - c) "manipulations" means mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping, or otherwise handling of manganese, or mixture containing manganese; and
  - d) "efficient exhaust ventilation" means localised ventilation effected by mechanical means for the removal of dust or fume or 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 draught 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.
2. **Application-** This schedule shall apply to every factory in which or in any part of which any manganese process is carried on.
3. **Exemption-** If in respect of any factory, the Chief-Inspector-cum-facilitator 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.
4. **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 affected by the same.
5. **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.
6. **Medical facilities and records of examinations and tests:**
  - i. The occupier of every factory to which this 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-cum-Facilitator; and
    - b) Provide to the medical practitioner all the necessary facilities for the purpose referred to in clause (a).
  - ii. 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-cum-facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
7. **Medical examination by certifying Surgeon-**
  - i. Every worker employed in any manganese process shall be medically examined by a Certifying Surgeon within 15 days of his first employment. Such examinations shall include tests for detection of serum calcium, serum phosphate and manganese in blood and urine and also include steadiness tests and other neuro-muscular 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.

- II. Every worker employed in a manganese process shall be re-examined 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 sub-paragraph (I).
  - III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in **Form-XXIV**. 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-paragraph (I) and (II), including the nature and the results of this test, shall also be entered by the certifying Surgeon in a health register in **Form-XXIII**.
  - IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - V. 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 process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
  - VI. 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.
- 8. Personal protective equipment—**
- I. 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.
  - II. The occupier of the factory shall provide suitable respiratory protective equipment for use by works in emergency to prevent inhalation of dusts, fumes or mists. Sufficient number of complete sets of such equipment shall always be kept near the work place and the same shall be properly maintained and kept always in a condition to be used readily.
  - III. The occupier shall provide and maintain for the use of all persons employed, suitable accommodation for the storage and make adequate arrangements for cleaning and maintenance of personal protective equipment.
- 9. Prohibition relating to women and young persons-** No pregnant women or lactating mother or young persons shall be employed or permitted to work in any manganese process.
- 10. Food, drinks, etc. prohibited in the work rooms-** No food, drink, pan and supari or tobacco shall be allowed to be brought into or consumed by any worker in any workroom in which any manganese process is carried on.
- 11. Mess room-** There shall be provided and maintained for the use of the persons employed in a manganese process a suitable mess room which shall be furnished with sufficient tables and benches and adequate means for warming of food. The mess room shall be placed under the charge of a responsible person and shall be kept clean.
- 12. 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—
- 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 at least 60 centimetres for every ten 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;
    - 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 water; and
  - b) Sufficient supply of soap or other suitable cleaning material and nail brushes and clean towels.
- 13. Cloakroom-** If the Chief Inspector-cum-Facilitator 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.
- 14. Cautionary placard and instructions-** Cautionary notices in the form specified in appendix and printed in the language of the majority of the workers and 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.

**APPENDIX  
CAUTIONARY NOTICE**

**Manganese and Manganese Compounds**

1. Dust free and mists of manganese and its compounds are toxic when inhaled or when ingested.
2. Do not consume food or drink near the work place.
3. Take a good wash before taking meals.
4. Keep the working area clean.
5. Use the protective clothing and equipment provided.
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. If you get severe head-aches, prolonged sleeplessness or abnormal sensations on the body, report to the manager who would make arrangements for your examination and treatment.

**Schedule B-XXI**

**Protection against hazards of poisoning arising from benzene**

1. **Application-** 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. **Definitions-** For the purpose of this schedule-
  - a) "substances containing benzene" means substances wherein benzene content exceeds 1 per cent by volume.
  - b) "substitute" means a chemical which is harmless or less harmful than benzene and can be used in place of benzene;
  - c) "enclosed system" means a system which will not allow escape of benzene vapours to the workers atmosphere; and
  - d) "efficient exhaust draught" means localised ventilated 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.
3. **Prohibition and substitution-**
  - I. Benzene and substances containing benzene shall not be used as solvent or diluent unless the process in which it is used is carried on in an enclosed system or unless the process is carried on in manner which is considered equally safe as if it were carried out in an enclosed manner. Use of benzene and substances containing benzene is prohibited in the following processes:
    - a) manufacture of varnishes, paints and thinners; and
    - b) Cleaning and degreasing operations.
  - II. Where suitable substitutes are available, they shall be used instead of benzene or substances containing benzene. This provision, however, shall not apply to the processes specified in **Appendix-A**.
  - III. The Chief-Inspector-cum-Facilitator may, subject to confirmation by the State Government, permit exemptions from the percentage laid down in sub-paragraph 2(a) and also from the provisions of sub-paragraph (II) 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 installation-**
  - I. The process involving the use of benzene or substances containing benzene shall be as far as practicable be carried out in an enclosed system.
  - II. 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 of the workroom so that the concentration of benzene in the air does not exceed 10 parts per million by volume or 30 milligrams per cubic meter.

- III. Air analysis for the measurement 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 result 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, exceeds 10 parts per million by volume or 30 milligrams per cubic meter, the Manager shall forthwith report the concentration to the Chief-Inspector-cum-Facilitator stating the reasons for such increase.
- IV. Workers who for special reasons are likely to be exposed to concentration of benzene in the air of the workroom exceeding the maximum referred to in subparagraph (II) shall be provided with suitable respirators or face masks. The duration of such exposure shall be limited as far as possible.
- 5. Measures against skin contact-**
- I. Workers who are likely to come in contact with liquid benzene or liquid substances 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.
  - II. The protective wear referred to in sub-paragraph (I) shall be maintained in good condition and inspected regularly.
- 6. Prohibition relating to employment of women and young persons-** No pregnant women or lactating mother 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 infallibility of the chemical.
- 8. Improper use of benzene-**
- I. The use of benzene substances containing benzene by workers for cleaning their hands or their work clothing shall be prohibited.
  - II. Workers shall be instructed on the possible dangers arising from such misuse.
- 9. Prohibition of consuming food, etc. in work rooms-** 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 in such work rooms.
- 10. Instructions 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 measures to be taken to deal with in an emergency.
- 11. Cautionary notices-** Cautionary notices in the form specified in Appendix B and printed in the language easily read and understood by the majority of the workers shall be displayed in prominent places in the work rooms where benzene or substances containing benzene are manufactured, handled or used.
- 12. Washing facilities, cloakroom and mess room-** In factories in which benzene or substances containing benzene are manufactured, handled or used, the occupier shall provide and maintain in a clean state and in good repair-
- a) 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-cum-Facilitator;
  - b) cloakroom with lockers for each worker, having two compartments - one for street-clothing and one for work-clothing; and
  - c) 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.
- 13. Medical facilities and records of examinations and tests-**
- I. The occupier of every factory to which this 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-cum-Facilitator; and
    - b) Provide to the medical practitioner all the necessary facilities for the purpose referred to in clause (a).
  - II. The record of such examinations carried out by the medical practitioner shall be maintained in a separate register approved by the Chief-Inspector-cum-Facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- 14. Medical examination by Certifying Surgeon-**
- I. 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 examinations shall include skin test for dermatitis and 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.
- II. Every worker employed in a manganese process shall be re-examined by a Certifying Surgeon at least once in every 12 months and such examination shall, wherever the Certifying Surgeon considers appropriate, include all the tests in sub-paragraph (I).
- III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in Form-XXIV. 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-paragraph (I) and (II), including the nature and the results of this test, shall also be entered by the Certifying Surgeon in a health register in Form-XXIII.
- IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- V. 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 process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
- VI. 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.

#### APPENDIX-A

1. production of benzene
2. process where benzene is used for chemical synthesis
3. motor spirits (used as fuel)

#### APPENDIX-B

##### (SEE PARAGRAPH 11 OF THIS SCHEDULE) CAUTIONARY NOTICE

##### *Benzene and substances containing benzene*

###### 1. **Hazards:**

- a) Benzene and substances containing benzene are harmful.
- b) Prolonged or repeated breathing of benzene vapours may result in acute or chronic poisoning.
- c) Benzene can also be absorbed through skin which may cause skin or other diseases.

###### 2. **Preventive measures:**

- a) Avoid breathing of benzene vapours.
- b) Avoid prolonged or repeated contact of benzene with the skin.
- c) Remove benzene soaked or wet clothing promptly.
- d) If any time you are exposed to high concentration of benzene vapours and exhibit signs and symptoms such as dizziness, difficulty in breathing, excessive exertation and losing of consciousness, immediately inform your factory manager.
- e) Keep all the containers of benzene closed
- f) Handle, use and process benzene and substances containing benzene carefully in order to prevent their spillage on floor.
- g) Maintain good housekeeping.

###### 3. **Protective equipment:**

- a) Use respiratory protective equipment in places where benzene vapours are present in high concentration.
- b) In emergency, use self-generating oxygen mask or oxygen or air cylinder masks.
- c) Wear hand gloves, aprons, goggles and gum boots to avoid contact of benzene with your skin and body parts

###### 4. **First-aid measures in case of acute benzene poisoning:**

- a) Remove the clothing immediately if it is wetted with benzene.
- b) If liquid benzene enters eyes, flush thoroughly for at least 15 minutes with clean running

water and immediately secure medical attention.

- c/ In case of unusual exposure to benzene vapour, call a physician immediately. Until he arrives, do the followings.
- i. If the exposed person is conscious-
    - Move him to fresh air in open.
    - Lay down without a pillow and keep him quiet and warm.
  - ii. If the exposed person is unconscious-
    - Lay him down preferably on the left side with the head low.
    - Remove any false teeth, chewing gum, tobacco or other foreign objects which may be in his mouth.
    - Provide him artificial respiration in case difficulty is being experienced in breathing.
    - In case of shallow breathing or cyanosis (blueness of skin, lips, ears, finger nail beds), he should be provided with medical oxygen or oxygen carbon-di-oxide mixture. If needed, he should be given artificial respiration. Oxygen should be administered by a trained person only.

**Schedule B- XXII**  
**Carbon disulphide plants**

1. **Application-** This schedule shall apply to all electric furnaces in which carbon sulphide 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 Codes and Rules made there under.
2. **Construction, installation and operation-**
  - I. The buildings in which electric furnaces are 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.
  - II. 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 the 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.
  - III. The electric furnace supports shall be firmly grouted about 60 centimetres in concrete or by other effective means.
  - IV. Every electric furnace shall be installed and operated according to manufacturers' instructions and these instructions shall be clearly imparted to the personnel in charge of construction and operation.
  - V. The instructions regarding observance of correct furnace temperature, sulphur dose, admissible current or power consumption and periodical checking of charcoal level shall be strictly complied with.
3. **Electrodes-**
  - I. 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.
  - II. The arrangement for cooling water referred to in sub-paragraph (I) 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 in the control room and simultaneously stop power supply for the furnace operation and to stop the further supply of water. The alarm system and the actuating device shall be checked every day.
4. **Charcoal level indicator and vibrator-** Means shall be provided on each electric furnace for indicating the correct level of charcoal in the furnace and vibrating the charcoal. This mean shall employ often as necessary to maintain correct charge and level of charcoal.
5. **Charcoal separator -** A cyclone type of charcoal separator shall 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.
6. **Rupture discs and safety seal-**
  - I. 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.
  - II. A safety water seal shall be provided and tapped from a point between the charcoal separator and the

sulphur separator.

**7. Pyrometer and manometers-**

- I. 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.
- II. Manometers or any other suitable devices shall be provided for indicating pressure—
  - a) In the off-take pipe before and after the sulphur separator; and
  - b) In primary and secondary condensers.

**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.

**9. Inspection and maintenance of electric furnaces-**

- I. Every electric furnace shall be inspected internally by a competent person.
  - a) Before being placed in service after installation;
  - b) Before being placed in service after reconstruction or repairs; and
  - c) Periodically every time the furnace is opened for cleaning or de- or for replacing electrodes.
- II. When an electric furnace is shut down for cleaning or de-
  - a) The brick lining shall be checked for continuity and any part found defective removed;
  - b) After removal of any part of the lining referred to in (a) the condition of the shell shall be closely inspected; and
  - c) Any plates forming shall found corroded to the extent that safety of the furnace is endangered shall be replaced.

**10. Maintenance of records-** The following hourly records shall be maintained in a log book.

- a) Manometer readings at the points specified in sub-paragraph 7(2);
- b) Gas temperature indicated by pyrometers and all other vital points near the sulphur separator and primary and secondary condensers;
- c) Water temperature and flow of water through the siphon in the electrodes; and
- d) Primary and secondary voltages and current and energy consumed.

**11. Electrical apparatus, wiring and fittings-** All buildings 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.

**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 posted 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.

**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 at reasonable intervals at opposite ends. These shall always be kept clear of all obstructions and so designed to afford easy passage.

**14. Warnings in case of fire-** There shall be adequate arrangements for giving warnings in case of fire or explosion which shall operate on electrically and in case of failure of electricity by some mechanical means

**15. Fire-fighting equipment-**

- I. 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.
- II. 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.

**16. Bulk Sulphur-**

- I. 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 nearby locomotives, etc., and precautions shall be taken to see that flames, smoking and matches and other sources of ignition do not come in contact with the clouds of dust arising during handling of bulk sulphur
- II. All enclosures for bulk sulphur shall be of non-combustible construction, adequately ventilated and so designed as to provide a minimum of ledges on which dust may ledge.

- III. The bulk sulphur in the enclosures shall be handled in such a manner as to minimize the formation of dust clouds and no flame, smoking and matches or other sources of ignition shall be employed during handling and non-sparking tools shall be used whenever sulphur is shoveled or otherwise removed by hand.
- IV. No repairs involving flames, heat or use of hand or power tools shall be made in the enclosure where bulk sulphur is stored.
- 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.
- 18. Training and supervision-**
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 plant are in operation.
  2. Workers in charge of operation and maintenance of electric furnaces and the plants shall be properly qualified and adequately trained.
- 19. Washing facilities-**
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-pipes being spaced not less than 120 centimetres 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-cum-Facilitator.
  2. All the workers employed in the sulphur storage, handling and melting operations shall be provided with a nail brush.
- 20. Personal protective equipment-**
1. Suitable goggles and protective clothing consisting of overalls without pockets, gloves and foot-wear shall be provided for the use of operatives –
    - a) when operating valves or cocks controlling fluids etc.,
    - b) drawing off a molten sulphur from sulphur pots,
    - c) handling charcoal or sulphur.
  2. Suitable respiratory protective equipment shall be provided and stored in the appropriate place for use during abnormal conditions or in an emergency.
  3. Arrangements shall be made for proper and efficient cleaning of all such protective equipment.
- 21. Cloakrooms-** There shall be provided and maintained for the use of all persons employed in the processes a suitable cloakroom for clothing put off during work hours and a suitable place separate from the cloakroom 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.
- 22. Unauthorized persons-** Only maintenance and repair personnel, persons directly connected with the plant operation and those accompanied by authorized persons shall be admitted into the plant.
- Prohibition relating to women and young persons-** No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

#### **Schedule B-XXIII**

#### **Operations involving high noise levels**

1. **Application-** This schedule shall apply to all operations in any manufacturing process having high noise level.
2. **Definitions-** For the purpose of this schedule-
  - a) "Noise" means any unwanted sound.
  - b) "High noise level" means any noise level measured on the A-weighted scale is 90 dB or above.
  - 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 10 of this ratio. The noise level (for the sound pressure level) 6 corresponds to a reference pressure of  $20 \times 10^{-6}$  Newton per square meter or 0.0002 dynes per square centimetre 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.
  - d) "Frequency" is the rate of pressure variations expressed in cycles per second or hertz.
  - e) "dBA" refers to sound level in decibels as measured on a sound level meter operating on the A-

weighting network with slow meter response.

- D) "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.

**3. Protection against noise—**

1. In every factory, suitable, a 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 dBA Sound pressure level in or a per day, in hours number of short-term exposures)

|    |     |
|----|-----|
| 8  | 90  |
| 6  | 92  |
| 4  | 95  |
| 3  | 97  |
| 2  | 100 |
| 1½ | 102 |
| 1  | 105 |
| ¾  | 107 |
| ½  | 110 |
| ¼  | 115 |

**Notes:** 1. No exposure in excess of 115 dBA is to be permitted.

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 impulsive or impact noise**

Peak sound pressure level in dB Permitted number of impulses or impact per day

|     |        |
|-----|--------|
| 140 | 100    |
| 135 | 315    |
| 130 | 1,000  |
| 125 | 3,160  |
| 120 | 10,000 |

- No exposure in excess of 140 dB peak sound pressure level is permitted.
- 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 number of impulses or impacts per day is to be determined by extrapolation on a proportionate basis.
- For the purposes of this schedule, if the variations in the noise level involve maximum 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.
- When the daily 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  $C1/T1 + C2/T2 + Cn/Tn$  exceeds unity, -Where the C1, C2 etc. indicate the total time of actual exposure at a specified noise level and T1, T2, etc. denote the time of exposure of less than 90 dBA may be ignored in the above calculation.
- Where it is not possible to reduce the noise exposure to the levels specified in Point (1) of the Note by reasonably practicable engineering control or administrative measures, 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 Point (1) of the Note.
- 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 exposures specified in point (1) of the Note.

- a) In all cases where the prevailing sound levels exceed the permissible levels specified in point (1) of the Note 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.
- b) Every worker employed in areas where the noise exceeds the maximum permissible exposure levels specified in point (1) of the Note shall be subjected to any auditory examination by a Certifying Surgeon within 14 days of his first employment and thereafter, shall be re-examined at least once a 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.

**Prohibition relating to women and young persons:-** No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

#### **Schedule B-XXIV**

##### **Manufacture or manipulation of dangerous pesticides**

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 to as the said manufacturing process is carried on.
2. **Definitions-** For the purpose of this Part -
  - a) "dangerous pesticides" means any product proposed or used for controlling, destroying or repelling any pest or for preventing growth or mitigating effects 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 there under and any other product, as may be notified from time to time by the State Government;
  - b) "manipulation" includes mixing, blending, formulating, filling, emptying, packing or otherwise handling;
  - c) "efficient exhaust draught" means localised mechanical ventilation for removal of smoke, gas, vapour, dust, fume or mist so as to prevent them from escaping into the air of any work room 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.
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.
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 work places in which 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 to 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 projecting health of the workers.
5. **Prohibition relating to employment of women or young persons-** No pregnant women or lactating mother 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.
6. **Food, drinks, and smoking prohibition-**
  - I. 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.
  - II. Smoking shall be prohibited in any workroom in which the said manufacturing process is carried out.
7. **Protective clothing and protective equipment-**

- I. 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.
    - a) Protective equipment consisting of rubber gloves, gum boots, rubber aprons, chemical safety goggles and respirators shall be provided for all workers employed in the said manufacturing process.
    - b) Gloves, boots, aprons shall be made from synthetic rubber where a pesticide contains oil.
  - II. Protective clothing and equipment shall be worn by the workers supplied with such clothing and equipment.
  - III. Protective clothing and equipment shall be washed daily from inside and outside if the workers handle pesticides containing nicotine or phosphorous and shall be washed frequently if handling other pesticides.
  - IV. Protective clothing and equipment shall be maintained in good condition.
- 2. Floors and work-benches–**
- I. Floors in every workroom where dangerous pesticides are manipulated shall be of cement or other impervious material giving a smooth surface.
  - II. Floors shall be maintained in good repair, provided with adequate slope leading to a drain and thoroughly washed once a day with the hose pipe.
  - III. Work-benches where dangerous pesticides are manipulated shall be made of smooth, non-absorbing material preferably stainless steel and shall be cleaned at least once daily.
- 3. Spillage and waste–**
- I. If a dangerous pesticide during its manipulation splashes or spills on the work-bench, floor or on the protective clothing worn by a worker, immediate action shall be taken for through decontamination of such areas or articles.
  - II. 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.
  - III. Suitable deactivating agents, where available, shall be kept in a readily accessible place for use while attending to a spillage.
  - IV. Easy means of access shall be provided to all parts of the plant for cleaning, maintenance and repairs.
- 4. Empty containers used for dangerous pesticides–** Containers used for dangerous pesticides shall be thoroughly cleaned of their contents and treated with an inactivating agent before being discarded or destroyed.
- 5. Manual handling–**
- I. A dangerous pesticide shall not be required or allowed to be manipulated by hand except by means of a long-handled scoop.
  - II. Direct contact of any part of the body with a dangerous pesticide during its manipulation shall be avoided.
- 6. Ventilation–**
- I. In every workroom or area where a dangerous pesticide is manipulated, adequate ventilation shall be provided at all times by the circulation of fresh air.
  - II. Unless the process is completely enclosed, the following operations during manipulation of a dangerous pesticide shall not be undertaken without an efficient exhaust draught:
    - a) emptying a container holding a dangerous pesticide;
    - b) blending a dangerous pesticide;
    - c) preparing a liquid or powder formulation containing a dangerous pesticide; and
    - d) Changing or filling a dangerous pesticide into a container, tank hopper or machine or small sized containers.
  - III. In the event of a failure of the exhaust draught provided on the above operation, the said operations shall be stopped forthwith.
- 7. Time allowed for washing–**
- I. 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.
  - II. 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.
- 8. Washing and bathing facilities–**

- I. 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.
  - II. The washing places shall have standpipes placed at intervals of not less than one meter.
  - III. Not less than one half of the total number of washing places shall be provided with bathrooms.
  - IV. Sufficient supply of clean towels made of suitable material shall be provided: Provided that such towels shall be supplied individually for each worker is so ordered by the Inspector-cum-Facilitator.
  - V. Sufficient supply of soap and nail brushes shall be provided.
- 2. 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 -
- a) a cloakroom for clothing put off during working hours with adequate arrangements for drying clothing, if wet; and
  - b) separate and suitable arrangements for the storage of protective clothing provided under paragraph 7.
- 3. Mess room-**
- I. 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, suitable mess room which shall be furnished with-
    - a) sufficient tables and benches with back rest, and
    - b) Adequate means for warming food.
  - II. The mess room shall be placed under the charge of responsible person and shall be kept clean.
- 4. Manipulation not 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-cum-Facilitator.
- 5. Medical facilities and records of examinations and tests-**
- I. The occupier of every factory to which this 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-cum-Facilitator; and
    - b) Provide to the medical practitioner all the necessary facilities for the purpose referred to in clause (a).
  - II. The record of such examinations carried out by the medical practitioner shall be maintained in a separate, register approved by the Chief-Inspector-cum-Facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- 6. Medical examination by certifying Surgeon-**
- I. 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 examinations in respect of Halogenated Pesticides shall include tests for determination of chemical in blood and in fat tissues, E.E.G. abnormalities and memory tests. In respect of organic phosphate compounds, such examinations shall include tests 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.
  - II. Every worker employed in the said process shall be re-examined by a Certifying Surgeon at least once in every six calendar months. Such examination shall, wherever the Certifying Surgeon considers appropriate, include the tests specified in sub-paragraph (I). Further every worker employed in the said processes shall also be examined once in every three months by the factory medical officer.
  - III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in **Form-XXIV**. 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-paragraph (I) and (II), including the nature and the results of this test, shall also be entered by the certifying Surgeon in a health register in **Form-XXIII**.
  - IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - V. 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 process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.

VI. No person who has been found unfit to work as said in sub-paragraph (V) 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.

20. **Exemption-** If in respect of any factory the Chief Inspector cum Facilitator is satisfied that owing to the exceptional circumstances or the infrequency of the said manufacturing process or for any other reason which shall record in writing all or any of the provisions of this Part are not necessary for the protection of workers employed in the 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

#### APPENDIX CAUTIONARY NOTICE

##### Insecticides and pesticides

1. Chemicals handled in this plant are poisonous substances.
2. Smoking, eating food or drinking, chewing tobacco in this area is prohibited. No food stuff or drink shall be brought in this area.
3. Some of these chemicals may be absorbed through skin and may cause poisoning.
4. A good wash shall be taken before meals.
5. A good bath shall be taken at the end of this shift.
6. Protective clothing and equipment supplied shall be used while working in this area.
7. Containers of pesticides shall not be used for keeping food stuffs.
8. Spillage of the chemicals on any part of the body or on the floor or workbench shall be immediately washed away with water.
9. Clothing contaminated due to splashing shall be removed immediately.
10. Scrupulous cleanliness shall be maintained in this area.
11. Do not handle pesticides with bare hands, use scoops provided with handle.
12. In case of sickness like nausea, vomiting, giddiness, the manager should be informed who will make necessary arrangements for treatment.
13. All workers shall report for the prescribed medical tests regularly to protect their own health.

**Prohibition relating to women and young persons:** - No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

#### Schedule B- XXV

##### Manufacture of Rayon by viscose process

1. **Definitions-** For the purpose of this Part-

- a) "approved" means approved for the time being in writing by the Chief-Inspector-cum-Facilitator;
- b) "breathing apparatus" means a helmet or face piece with necessary connections by means of which the person using it in a poisonous, asphyxiating or irritant atmosphere breathes unpolluted air; or any other approved apparatus;
- c) "churn" means the vessel in which alkali cellulose pulp is treated with carbon disulphide;
- d) "dumping" means transfer of cellulose xanthate from a dry churn to a dissolver;
- 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 originates;
- f) "fume process" means any process in which carbon disulphide or hydrogen sulphide is produced, used or given off;
- g) "life belt" means a belt made of leather or other suitable material which can be securely fastened round the body with a suitable length of rope attached to it, each of which is sufficiently strong to sustain the weight of a man;
- h) "protective equipment" means apron, goggles, face shields, footwear, gloves and overalls made of suitable materials.

2. **Ventilation-**

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-di-sulphide and hydrogen sulphide in the air of every work environment within the permissible limits.

- II. Notwithstanding the requirements in sub-paragraph (I) an efficient exhaust draught shall be provided and maintained to control the concentration of carbon-disulphide and hydrogen sulphide in the air at the following locations:
  - a) dumping hoppers of dry churns;
  - b) spinning machines;
  - c) trio rollers and cutters used in staple fibre spinning;
  - d) hydro-extractors for yarn cakes;
  - e) after treatment processes; and
  - f) spin baths.
- III. In so far as the spinning machines and trio rollers and cutters used in staple fibre spinning are concerned, they shall be, for the purpose of ensuring the effectiveness of the exhaust draft to be provided as required in sub-paragraph (I), 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 escaping to the work environment.
- IV. No dry churn 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 as long as the churn is kept opened.
- V. Whenever any ventilation apparatus normally required for the purpose of meeting the requirements in sub-paragraphs (II), (III), and (IV) 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 an occurrence.
  - a) All ventilating systems provided for the purposes as required in subparagraphs (II), (III) and (IV) 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.
  - b) A register containing particulars of such examinations and tests, and the state of the systems and the repairs or alterations (if any) found to be necessary shall be kept and shall be available for inspection by an Inspector-cum-Facilitator.
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 off as quickly as possible after decontamination.
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 good condition.
5. **Air monitoring-**
  - I. To ensure the effectiveness of the control measures, monitoring of carbon-disulphide and hydrogen sulphide in air shall be carried out once atleast in every shift and the record of the results so obtained shall be entered in a register specially maintained for the purposes.
  - II. For the purpose of the requirement in sub-paragraph (I), instantaneous gas detector tubes shall not be used. Samples shall be collected over duration of not less than 10 minutes and analyzed by an approved method. The locations where such monitoring is to be done shall be as directed by the Inspector-cum-Facilitator.
  - III. If the concentration of either carbon disulphide or hydrogen sulphide exceeds the permissible limits for such vapour or gas as laid down in Rule 66, suitable steps shall be taken for controlling the concentrations in air of such contaminants. A report of such occurrences shall be sent to the Chief-Inspector-cum-Facilitator forthwith.
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.
7. **Prohibition relating to employment of young persons-** No pregnant women or lactating mother or 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.
8. **Protective equipment-**

- I. the occupier shall provide and maintain in good condition protective equipment as specified in the Table for use of persons employed in the processes referred to therein.

**Table**

| No. | Process   | Protective equipment   |
|-----|---|--|
| 1.  | Dumping   | Overalls, face-shields, gloves and footwear - all made of suitable material                            |
| 2.  | Spinning  | Suitable aprons, gloves and footwear   |
| 3.  | Process involving or likely to involve contact with viscous solution. | Suitable gloves and footwear   |
| 4.  | Handling of sulphur   | Suitable chemical goggles  |
| 5.  | Any other process directed involving contact with hazardous chemicals | Protective equipment as may be directed by the Chief-Inspector-cum-Facilitator by an order in writing. |

- II. A suitable room, rooms or lockers shall be provided exclusively for the storage of all protective equipment supplied to workers and no such equipment shall be stored at any place other than the room, rooms or lockers so provided.

**9. Breathing apparatus—**

- I. There shall be provided in every factory where fume process is carried on, sufficient supply of-
- breathing apparatus,
  - oxygen and a suitable appliance for its administration, and
  - lifelines

II. The breathing apparatus and other appliances referred to in subparagraph (I) shall be maintained in good condition and kept in appropriate locations so as to be readily available.

III. The breathing apparatus and other appliances referred at (a) and (b) of sub-paragraph (I) shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.

IV. A record of the maintenance of the condition of the breathing apparatus and other appliances referred to in sub-paragraph (I) shall be entered in a register provided for that purpose which shall be readily available for inspection by an Inspector-cum-Facilitator.

V. Sufficient number of workers shall be trained and periodically retrained 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.

VI. Breathing apparatus shall be kept properly labeled in clean, dry, light-proof cabinets and if liable to be affected by fumes, shall be protected by placing them in suitable containers.

VII. No person shall be employed to perform any work for which breathing apparatus is necessary to be provided under sub-paragraph (I) unless he has been fully instructed in the proper use of that equipment

VIII. No breathing apparatus provided in pursuance of sub-paragraph (I) 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

**10. Electric fittings -** All electric fittings in any room in which carbon-di-sulphide is produced, used or given off or is likely to be given off into the work environment, other than a spinning room, shall be of flame-proof construction and all electric conductors shall either be enclosed in metal conduits or be lead-sheathed.

**11. 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 a room in which fume process is carried on. A notice in the language understood by the majority of the workers shall be posted 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 a 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.

**12. Washing and bathing facilities—**

I. There shall be provided and maintained in a clean state and in good repair for the use of all workers employed and, 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.

II. The washing places shall have standpipes placed at intervals of not less than one meter.

III. Not less than one half of the total number of washing places shall be provided with bathrooms.

IV. 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-cum-Facilitator.

V. Sufficient supply of soap and nail brushes shall be provided.

**13. Rest Room-**

I. A rest room shall be provided for the workers engaged in doffing operations of filament yarn spinning process.

II. Such rest room shall be provided with fresh air supply and adequate seating arrangement.

**14. Cautionary notice and instructions—**

I. The following cautionary notice shall be prominently displayed in each fume process room.

**Cautionary Notice:**

i. Carbon disulphide (CS<sub>2</sub>) and Hydrogen Sulphide (H<sub>2</sub>S) which may be present in this room are hazardous to health.

ii. Follow safety instructions.

iii. Use protective equipment and breathing apparatus as and when required.

iv. 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.

II. 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.

III. Simple and special instructions shall be framed to ensure that effective measures will be carried out in case of emergency involving escape of carbon-di-sulphide 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.

**15. Medical facilities and records of examinations and tests—**

I. The occupier of every factory to which this 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; and

b) Provide to the said medical practitioner all the necessary facilities for the purpose referred at (a).

II. The record of such examinations carried out by the 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-cum-Facilitator.

**16. Medical examination by certifying Surgeon-**

I. Every worker employed in the processes specified in paragraph 1 shall be examined by a Certifying Surgeon within days of his first employment. Such examinations shall include skin test for dermatitis and 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.

II. Every worker employed in a manganese process shall be re-examined 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 sub-paragraph (I).

III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in Form-XXIV.

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-paragraph (I) and (II) including the nature and the results of this test, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.

- IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- V. 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 process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
- VI. No person who has been found unfit to work as said in sub-paragraph (V) 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.
17. **Exemptions-** 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 is not necessary for the protection of the workers in the factory, the Chief Inspector may be 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 B – XXVI**

#### **Highly Flammable Liquids and Flammable Compressed Gases**

1. **Application-** This schedule will be applicable to all factories where highly flammable liquids or flammable compressed gases are manufactured, stored, handled or used.
2. **Definition-** For the purpose of this schedule-
- a) "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, (30 of 1934) gives off flammable vapours at a temperature less than 32 degree centigrade;
- b) "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 Explosive Act, 1884.
3. **Storage-**
- I. 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.
- II. Except as necessary for use, operation or maintenance, every vessel or tank which contains or had contained 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.
- III. 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 pipe lines, pumps and similar appliances from the storage tank or vessel to the point of use. Such enclosed systems 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 any equipment, pipe line, 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-** In every room, work place or other location where highly flammable liquid or flammable combustible 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 foot wear having 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.
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 a risk of life. 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. **Firefighting-** 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 firefighting, shall be to the standards and levels prescribed by the Indian Standards applicable.
9. **Exemptions-** 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 is not necessary for the 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.
10. **Prohibition relating to women and young persons:** - No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

#### **Schedule B- XXVII**

##### **Operations in Foundries**

1. **Application-** Provisions of this Schedule shall apply to all parts of factories where any of the following operations or processes are carried on:
- a) the production of iron castings or, as the case may be, steel castings by casting in moulds made of sand, loam, moulding composition or other mixture of materials, or by shell moulding, or by centrifugal casting and any process incidental to such production;
  - b) the production of non-ferrous castings by casting metal in moulds made of sand, loam, metal, moulding composition or other material or mixture of materials, or by shell mouldings, die-casting (including pressure die casting), centrifugal casting or continuous casting and any process incidental to such production; and
  - c) the melting and casting of non-ferrous metal for the production of ingots, billets, slabs or other similar products, and the stripping thereof;  
But shall not apply with respect to -
    - a) Any process with respect to the smelting and manufacture of lead and the Electric Accumulators;
    - b) Any process for the purpose of a printing works; or
    - c) Any smelting process in which metal is obtained by a reducing operation or any process incidental to such operation; or
    - d) The production of steel in the form of ingots; or
    - e) Any process in the course of the manufacture of solder or any process incidental to such manufacture; or
    - f) the smelting and casting of lead or any lead-based alloy for the production of ingots, billets, slabs or other similar products or the stripping thereof, or any process incidental to such melting, casting or stripping.
2. **Definition-** For the purpose of this Schedule-

- a) "approved respirator" means a respirator of a type approved by the Chief-Inspector-cum-Facilitator;
  - b) "cupola of furnace" includes a receiver associated therewith;
  - c) "dressing or fettling operations" 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:
    - i. 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
    - ii. Any operation which is knock-out operation within the meaning of this schedule;
  - d) "foundry" means those parts of a factory in which the production of iron or steel or non-ferrous castings (not being the production of pig iron or the production of steel in the form of ingots) is carried on by casting in moulds made of sand, loam, moulding composition or other mixture of materials, or by shell moulding or by centrifugal casting in metal moulds lined with sand, or die casting including pressure die casting, together with any part of the factory in which any of the following processes are carried on as incidental processes in connection with and in course of, such production, namely, the preparation and preparation of moulds and cores, knock out operations and dressing or fettling operations;
  - e) "knock-out operations" 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;
  - f) "pouring aisle" means an aisle leading from a main gangway or directly from a cupola or furnace to where metal is poured into moulds.
- 3. Prohibition of use of certain materials as parting materials-**
- f. A material shall not be used as a parting material if it is a material containing compounds of silicon calculated as silica to the extent more than 5 percent by weight of the dry material: Provided that this prohibition shall not prevent the following being used as a parting material if the material does not contain an admixture of any other silica -
    - a) Zirconium silicate (Zircon)
    - b) Calcined china clay
    - c) Calcined aluminous fireclay
    - d) Silimanite
    - e) Calcined or fused alumina
    - f) Olivine
    - g) Natural sand
  - II. Dust or other matter deposited from a fettling or blasting process shall not be used as a parting material or as a constituent in a parting material.
- 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. Construction of floors-**
- I. Floors of indoor workplaces in which the processes are carried on, other than parts which are of sand, shall have been surface of hard material.
  - II. 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.
  - III. All parts of the surface of the floor of any such indoor workplace which are of sand shall, so far as practicable, be maintained in an even and firm condition.
- 6. Cleanliness of indoor workplaces: -**
- I. All accessible parts of the walls of every indoor workplace in which the 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 pursuance of this paragraph including the date (which

shall be not less than five months nor more than nine months after the last immediately preceding washing, cleaning or other treatment.

- II. 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 keep in good order.

**7. Manual operations involving molten metal-**

- I. 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-
  - a) Which is adequate for the safe performance of the work and
  - b) Which, so far as reasonably practicable, is kept free from obstruction?
- II. Any operation involving the carrying by hand of a container holding molten metal shall be performed on a floor all parts of which were 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.

**8. Gangways and pouring aisles -**

- I. In every workroom to which this paragraph applies constructed, reconstructed or converted for use as such after the making of this Schedule and, so far as reasonably practicable, in every other workroom to which this Paragraph applies, sufficient and clearly defined main gangway shall be provided and properly maintained which-
  - a) shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;
  - b) shall be kept, so far as reasonably practicable, free from obstruction;
  - c) if not used for carrying molten metal, shall be at least 920 millimetres in width;
  - d) if used for carrying molten metal shall be-
    - i. Where truck ladles are used exclusively, at least 600 millimetres wider than the overall width of the ladle;
    - ii. Where hand shanks are carried by not more than two men, at least 920 millimetres in width;
    - iii. Where hand shanks are carried by more than two men, at least 1.2 metres in width; and
    - iv. Where used for simultaneous travel in both directions by men carrying hand shanks, at least 1.8 metres in width.
- II. In workroom to which this Paragraph applies constructed, reconstructed or converted for use as such after the making of this Schedule, sufficient and clearly defined pouring aisles shall be provided and properly maintained which-
  - a) shall have an even surface of hard material and shall, in particular, not be sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;
  - b) Shall be kept so far as reasonably practicable free from obstruction;
  - c) if molten metal is carried in hand ladles or bulk ladles by not more than two men per ladle, shall be at least 460 millimetres wide, but where any moulds alongside the aisle are more than 510 millimetres above the floor of the aisle, the aisle shall be not less than 600 millimetres wide;
  - d) if molten metal is carried in hand ladles or bulk ladles by more than two men per ladle, shall be at least 760 millimetres wide;
  - e) if molten metal is carried in crane, trolley or truck ladles, shall be of a width adequate for the safe performance of the work.
- III. Requirements of sub-paragraph (I) and (II) shall not apply to any workroom or part of a workroom if, by reason of the nature of the work done therein, the floor of that workroom or, as the case may be, that part of a workroom has to be of sand.
- IV. In this paragraph "workroom to which this paragraph applies" means a part of a ferrous or non-ferrous foundry in which molten metal is transported or used, and a workroom to which this paragraph applies shall be deemed for the purposes of this paragraph to have been constructed, reconstructed or converted for use as such after the making of this schedule if the construction, reconstruction or conversion thereof was begun after the making of this schedule.

- 9. Work near cupolas and furnaces-** No person shall carry out any work within a distance of 4 metres from a vertical line passing through the delivery end of any spout of a cupola or furnace, being a spout

used for delivering molten metal, or within a distance of 2.4 metres from a vertical line passing through the nearest part of any ladle which is in position at the end of such a spout, except, in either case, where it is necessary for the proper use of maintenance of a cupola or furnace that work should be carried out within that distance of that work is being carried out at such a time and under such conditions that there is no danger to the person carrying it out from molten metal which is being obtained from the cupola or furnace or is in a ladle in position at the end of the spout.

**10. Dust and fumes: -**

- I. 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.
- II. 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.
- III. 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.
- IV. All knock-out operations shall be carried out-
  - a) in a separate part of 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 an 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.
- V. All dressing or fettling operations shall be carried out-
  - a) In a separate room or in a separate part of 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.

**11. Maintenance and examination of exhaust plant-**

- I. All ventilation plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be properly maintained.
- II. All ventilating plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be examined and inspected once every week by a responsible person. It shall be thoroughly examined and tested by a competent person at least once in every such examination and test shall be entered in an approved register which shall be available for inspection by an Inspector. Any defect found on any such examination and carrying out the examination and test to the occupier or manager of the factory.

**12. Protective equipment-**

- I. The occupier shall provide and maintain protective equipment specified for the protection of workers.
  - a) suitable gloves to other protection for the hands for workers engaged in handling any hot material likely to cause damage to the hands by burn, scald, or sear, or in handling pig iron, rough castings or other articles likely to cause damage to the hands by cut or abrasion;
  - b) approved respirators for workers carrying out any operations creating a have dust concentration which cannot be dispelled quickly and effectively by the existing ventilation arrangements.
- II. No respirator provided for the purposes mentioned in I (b) have been worn by a person shall be worn by another person if it has not since been thoroughly cleaned and disinfected.
- III. Persons who for any of their time-
  - a) work at a spout of or attend to, a cupola or furnace in such circumstances that material there from may come into contact with the body, being material at such a temperature that its contact with the body would cause a burn; or
  - b) Are engaged in, or in assisting with, the pouring of molten metal; or
  - c) carry by hand or move by manual power any ladle or mould containing molten metal; or
  - d) are engaged in knocking-out operations involving material at such a temperature that its contact with the body would cause a burn;
  - e) Shall be provided with suitable footwear and gaiters which worn by them prevent, so far as reasonably practicable, risk of burns to his feet and ankles.
- IV. Where appropriate, suitable screens shall be provided for protection against flying materials (including splashes of molten metal and sparks and chips thrown off in the course of any process).

- V. The occupier shall provide and maintain suitable accommodation for the storage and make adequate arrangements for cleaning and maintaining of the protective equipment supplied in pursuance of this paragraph. Every person shall make full and proper use of the equipment provided for his protection in pursuance of sub-paragraph and (IV) and shall without delay report to the occupier, manager, or other appropriate person any defect in, or less of, the same.

**13. Washing and bathing facilities-**

- I. There shall be provided and maintained in clean state and good repair for the use of all workers employed in the foundry
  - a) A wash place under cover with either-
    - i. a trough with impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimetres for every 10 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
    - ii. at least one tap or stand pipe for every 10 such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 1.2 metres apart; and
  - b) Not less than one half of the total number of washing places provided at (a) shall be in form of bathrooms.
  - c) A sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.
- II. The facilities provided for the purposes of sub-paragraph (I) shall be placed in charge of a responsible person or persons and maintained in a clean and orderly condition.

**14. Disposal of dross and skimming-** Dross and skimming removed from molten metal or taken from a furnace shall be placed forthwith in suitable receptacles.

**15. Disposal of waste-** Appropriate measures shall be taken for the disposal of all waste products from shell moulding (including waste burnt sand) as soon as reasonably practicable after the castings have been knocked-out.

**16. Material and equipment left out of doors-** All material and equipment left out of doors (including material, and equipment so left only temporarily or occasionally) shall be so arranged and placed as to avoid unnecessary risk. There shall be safe means of access to all such material and equipment and, so far as reasonably practicable, such access shall be by roadways or pathways which shall be properly maintained. Such roadways or pathways shall have a firm and even surface and shall, so far as reasonably practicable be kept free from obstruction.

**17. Medical facilities and records of examinations and tests-**

- I. The occupier of every factory to which this 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-cum-Facilitator; and
  - b) Provide to the medical practitioner all the necessary facilities for the purpose referred to at (a).
- II. The record of such examinations carried out by the medical practitioner shall be maintained in a separate, register approved by the Chief Inspector-cum-Facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.

**18. Medical examination by certifying Surgeon-**

- I. 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 examinations shall include skin test for dermatitis and 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.
- II. Every worker employed in a manganese process shall be re-examined by a Certifying Surgeon at least once in every 12 months and such examination shall, wherever the Certifying Surgeon considers appropriate, include all the tests in sub-paragraph (I).
- III. The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in **Form-XXIV**. 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-paragraph (I) and (II) including the nature and the results of this test, shall also be entered by the Certifying Surgeon in a health register in **Form-XXIII**.
- IV. The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.

- V. 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 process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.
- VI. No person who has been found unfit to work as said in sub-paragraph (III) 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.
19. **Exemptions-** 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 Part is not necessary for the 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.
20. **Prohibition relating to women and young persons:** - No pregnant women or lactating mother or young person shall be employed or permitted to work in any kind of such works.

**SCHEDULE - C**

|  |  |
|--|--|
| <b>Material Safety Data Sheet<br/>SAMPLE MODEL</b>                   |  |
| <b>SECTION I – MATERIAL IDENTIFICATION AND USE</b><br>(See rule 83 ) |  |

|   |                         |
|---|-------------------------|
| Material Name/Identifier                                  |                         |
| Manufacturer's Name                                       | Supplier's Name         |
| Street Address  | Street Address          |
| City State  | City State              |
| Postal Code   | Postal Code             |
| Emergency Telephone No.                                   | Emergency Telephone No. |
| Chemical Name   Chemical Identity Trade Name and Synonyms | Product Use             |

**SECTION II – HAZARDOUS INGREDIENTS OF MATERIAL**

| Hazardous Ingredients | Approximate Concentration % | C.A.S. or UN Numbers | LD 50 (Specify Species and Route) | LC 50 (Specify Species and Route) |
|-----------------------|-----------------------------|----------------------|-----------------------------------|-----------------------------------|
|                       |                             |                      |                                   |                                   |

**SECTION III – PHYSICAL DATA FOR MATERIAL**

| Physical State-Gas-Liquid-Solid | Odour and Appearance  | Odour Threshold (p.p.m) | Specific Gravity                        |               |
|---------------------------------|-----------------------|-------------------------|---|---------------|
| Vapour Pressure                 | Vapour density (At=1) | Evaporation Rate        | Boiling point (oC)                      | Freezing (oC) |
| Solubility in water (20°C)      | pH                    | Density (g/ml)          | Coefficient of water / oil distribution |               |

**SECTION IV – FIRE AND EXPLOSION HAZARD OF MATERIAL.**

|   |   |  |
|---|---|--|
| Flammability _____ Yes _____ No _____ If yes, under what conditions _____ |   |  |
| Means of Extinction _____   |   |  |
| Special Procedure _____   |   |  |
| Flash Point (°C) and Method _____   | Upper Explosion Limit (% by Volume) _____ | Lower Explosion Limit (% by Volume) _____              |
| Anti-ignition Temperature (°C) _____                                      | TDG Classification _____                  | Flammability _____ Hazardous Combustion Products _____ |
| Explosion Data-Sensitivity Sensitivity to Static _____                    |   | Chemical Impact Discharge _____                        |

**SECTION V - REACTIVITY DATA**

|  |  |
|--|--|
| Chemical Stability _____ Yes _____ No _____ If no, under what conditions _____ |  |
| Incompatibility to other substances _____                                      |  |
| _____ Yes _____ No _____ If yes, which ones _____                              |  |
| Reactivity and under what conditions _____                                     |  |
| Hazardous Decomposition Products _____   |  |
| Material name /Identifier _____  |  |

**SECTION VI - TOXICOLOGICAL PROPERTIES OF MATERIAL**

|   |                                |                         |
|---|--------------------------------|-------------------------|
| Route of Entry _____  |                                |                         |
| _____ Skin contact _____  | _____ Skin Absorption _____    | _____ Eye Contact _____ |
| _____ Inhalation Acute _____  | _____ Inhalation Chronic _____ | _____ Ingestion _____   |
| Sensitization to Carcinogenicity, Reproductive _____  |                                |                         |
| Effects of Acute Exposure to Material _____   |                                |                         |
| Effects of Chronic Exposure to Material _____   |                                |                         |
| _____ Exposure Irritancy of Limit(s) Material _____   |                                |                         |
| Sensitisation to Carcinogenicity, Reproductive Material Effects, Teratogenicity, Mutagenicity _____ |                                |                         |
| Synergistic Materials _____   |                                |                         |

**SECTION VII - PREVENTIVE MEASURES**

|   |                            |                       |
|---|----------------------------|-----------------------|
| Personal Protective Equipment _____                                   |                            |                       |
| Gloves(specify) _____   | Respiratory(specify) _____ | Eye ca(specify) _____ |
| Footwear(specify) _____   | Clothing(specify) _____    | Other(specify) _____  |
| Engineering Controls (e.g. ventilation, enclosed process, etc.) _____ |                            |                       |
| Please specify _____  |                            |                       |
| Leak and Spill Procedures _____                                       |                            |                       |
| Waste Disposal _____  |                            |                       |
| Handling Procedures and Equipment _____                               |                            |                       |
| Storage Requirements _____  |                            |                       |
| Special Shipping Information _____                                    |                            |                       |

**SECTION VIII - FIRST AID MEASURE**

|                              |
|------------------------------|
| First Aid Measure _____      |
| Sources used _____           |
| Additional information _____ |

**SECTION IX - PREPARATION DATE OF M.S.D.S.**

|  |
|--|
| Prepared by (Group, Department, etc.) (Phone No.) Date _____ |
|--|

Notes:

1. CAS or UN Number – Chemical Abstract Service or United Nations (UN) Number.

2. LD 50 – Lethal Dose – 50% (LD50 – Specify species and route).
3. LC 50 – Lethal Concentration – 50% (LC50 – Specify species and route).
4. TDG Flammability – Transport of Dangerous Goods Flammability Classification by United Nations.

**SCHEDULE-D**

(See rule 84)

**Equipments for Occupational Health Centre in Factories:**

1. A glazed sink with hot and cold water always
2. A table with a smooth top at least 180 cm x 105cm.
3. Means for sterilizing instruments
4. A cough
5. Two buckets or containers with close fitting lids
6. A kettle and spirit stove or other suitable means of boiling water
7. One bottle of spiritus ammoniac aromaticus (120ml.)
8. Two medium size sponges
9. Two 'kidney' trays
10. Four cakes of toilet, preferably antiseptic soap
11. Two glass tumblers and two wine glasses
12. Two clinical thermometers
13. Two tea spoons
14. Two graduated (120 ml) measuring glasses
15. One wash bottle (1000 cc) for washing eyes
16. One bottle (one litre) carbolic lotion 1 to 20.
17. Three chairs
18. One screen
19. One electric hand torch
20. An adequate supply of tetanus toxied
21. Coramine liquid (60ml)
22. Tablets – antihistaminic, anti-spasmodic (25each)
23. Syringes with needles – 2cc, 5 cc and 10cc
24. Two needle holders, big and small suturing needles and materials
25. Suturing needles and materials
26. One dissecting forceps
27. One dressing forceps
28. One scalpels
29. One stethoscope
30. Rubber bandage – pressure bandage
31. Oxygen cylinder with necessary attachments
32. One Blood Pressure apparatus
33. One Patellar Hammer
34. One Peak-flow meter for lung function measurement
35. One stomach wash set
36. Any other equipment recommended by the Factory Medical Officer according to specific need relating to manufacturing process
37. In addition–
  - (1) For factories employing 51 to 200workers–
    1. Four plain wooden splints 900 mm x 100mm x 6mm
    2. Four plain wooden splints 350 mm x 75mm x 6mm
    3. Two plain wooden splints 250 mm x 50mm x 12mm
    4. One pair artery forceps
    5. Injections – morphia, pethidine, atropine, adrenaline, coramine, nova cur(2each)
    6. One surgical scissors
  - (2) For factories employing above 200 workers–
    1. Eight plain wooden splints 900 mm x 100mm x 6mm
    2. Eight plain wooden splints 350 mm x 75mm x 6mm

3. Four plain wooden splints 250 mm x 50mm x 12mm
4. Two pairs artery forceps
5. Injections – morphia, pethidine, atropine, adrenaline, coramine, nova can (2each)
6. One surgical scissors

**SCHEDULE - E**  
(See Rule 83 & 91)

**Maximum permissible limit of exposure of chemicals and toxic substances**

**1. Definitions.-** For the purpose of this schedule-

- (a) "mg/m<sup>3</sup>" means milligrams of a substances per cubic metre of air;
- (b) "mppcn" means million particles of a substance per cubic metre of air;
- (c) "ppm" means parts of vapour or gas per million parts of air by volume at 25 degrees centigrade and 760 mm of mercury pressure;
- (d) "Time weighted average concentration" means the average concentration of a substance in the air at any work location in a factory computed from evaluation of adequate number of air samples taken at that location, spread over the entire shift on any day, after giving weight age to the duration for which each such sample is collected and the concentration prevailing at the time of taking the sample.

$$\text{Time weighted average concentration} = \frac{C_1T_1 + C_2T_2 + \dots + C_nT_n}{T_1 + T_2 + \dots + T_n}$$

Where C<sub>1</sub> represents the concentration of the substance for duration T<sub>1</sub> (in hours);

C<sub>2</sub> represents the concentration of the substance for duration T<sub>2</sub> (in hours);

and C<sub>n</sub> represents the concentration of the substance for duration T<sub>n</sub>(in hours).

- (e) "Work location" means a location in a factory at which a worker works or may be required to work at any time during any shift on any day.

**2. Limits of concentration of substances at work location: -** (1) The time weighted average concentration of any substance listed in table 1 or 2 of the schedule, at any work location in a factory during any shift on any day shall not exceed the limit of the permissible time weighted average concentration specified in respect of that substance;

Provided that in the case of a substance mentioned in Table 1 in respect of which a limit in terms of short-term maximum concentration is indicated, the concentration of such a substance may exceed the permissible limit of the time weighted average concentration for the substance for short periods not exceeding 15 minutes at a time, subject to the condition that-

- (a) such periods during which the concentration exceeds the prescribed time weighted average concentration are restricted to not more than 4 per shift;
  - (b) the time interval between any two such periods of higher exposure shall not be less than 60 minutes; and
  - (c) at no time the concentration of the substance in the air shall exceed the limit of short term maximum concentration.
- (2) In the case of any substance given in Table 3, the concentration of the substance at any work location in a factory at any time during any day shall not exceed the limit of exposure for that substance specified in the table.
- (3) In the cases where the word "skin" has been indicated against certain substance mentioned in Tables 1 and 3, appropriate measures shall be taken to prevent absorption through cutaneous routes particularly skin, mucous membranes, and eyes as the limits specified in these Tables are for conditions where the exposure is only through respiratory tract.
- (4) (a) In case, the air at any work location contains a mixture of such substances mentioned in Table 1,2 or 3, which have similar toxic properties, the time weighted concentration of each of these substances during the shift should be such that when these time weighted concentration divided by the respective permissible time weighted average concentration specified in the above mentioned tables, and the fractions obtained are added together, the total shall not exceed unity.

i.e.  $\frac{C_1}{L_1} + \frac{C_2}{L_2} + \dots + \frac{C_n}{L_n}$  should not exceed unity

Where C<sub>1</sub>, C<sub>2</sub>,..... C<sub>n</sub> are the time weighted concentration of toxic substances 1, 2, and respectively, determined after measurement at work location; and L<sub>1</sub>, L<sub>2</sub> .....L<sub>n</sub> are the

permissible time weighted average concentration of the toxic substances 1, 2, and n respectively

(b) In case the air at any work location contains a mixture of substances, mentioned in Table 1, 2, 3 and these do not have similar toxic properties, then the time weighted concentration of each of these substances shall not exceed the permissible time weighted average concentration specified in the above-mentioned tables, for that particular substance.

(c) The requirement in clauses (a) and (b) shall be in addition to the requirements in paragraphs 2 (1) and 2 (2).

**3. Sampling and evaluation procedures: -**

(1) Notwithstanding provisions in any other paragraphs, the sampling and evaluation procedures to be adopted for checking compliance with the provisions in the schedule shall be as per standard procedures in vogue from time to time.

(2) Notwithstanding the provisions in paragraph 5, the following conditions regarding the sampling and evaluation procedures relevant to checking compliance with the provisions in the schedule are specified.

(a) For determination of the number of particles per cubic metre in item 1 (a)(i)(1) in Table 2, samples are to be collected by standard or midget impinger and the counts made by light-field technique.

(b) The percentage of quartz in the 3 formulae given in item 1(a)(i) of Table 2 is to be determined from air borne samples.

(c) For determination of number of fibres as specified in item 2(a) of Table 2, the membrane filter method at 430x magnification (4mm objective) with phase contrast illumination should be used.

(d) Both for determination of concentration and percentage of quartz for use of the formula given in item 1(a)(i)(2) of Table 2, the fraction passing through a size-selector with the following characteristics should only be considered.

| Aerodynamic diameter | Percentage allowed | (unit density sphere) by size-select |
|----------------------|--------------------|--------------------------------------|
| 2.0                  |                    | 90                                   |
| 2.5                  |                    | 75                                   |
| 3.5                  |                    | 50                                   |
| 5.0                  |                    | 25                                   |
| 10.0                 |                    | 0                                    |

**4. Power to require assessment of concentration of substances: -** (1) An Inspector may, by an order in writing, direct the occupier or manager of a factory to get before any specified date, the assessment of the time weighted average concentration at any work location of any of the substances mentioned in Table 1, 2 or 3 carried out.

(2) The results of such assessment as well as the method followed for air sampling and analysis for such assessment shall be sent to the Inspector within 3 days from the date of completion of such assessment and also a record of the same kept readily available for inspection by an Inspector.

**5. Exemption.-** If in respect of any factory or a part of a factory, the Chief Inspector is satisfied that, by virtue of the pattern of working time of the workers at different work locations or an account of other circumstances, no worker is exposed, in the air at the work locations, to a substance or substances specified in Tables 1, 2 or 3 to such an extent as is likely to be injurious to his health, he (the Chief Inspector) may by an order in writing, exempt the factory or a part of the factory from the requirements in paragraph 2, subject to such conditions, if any, as he may specify therein.

**TABLE 1**

| Substances  | Permissible Time weighted average concentration |                   | Maximum exposure Short-term |                   |
|-------------|---|-------------------|-----------------------------|-------------------|
|             | ppm   | mg/m <sup>3</sup> | ppm                         | mg/m <sup>3</sup> |
| Acetic acid | 10  | 25                | 15                          | 37                |
| Acrolein    | 0.1   | 0.25              | 0.3                         | 0.8               |
| Aldrin-skin | -   | 0.25              | -                           | 0.75              |

|                                      |     |      |     |      |
|--------------------------------------|-----|------|-----|------|
| Ammonia                              | 25  | 18   | 35  | 27   |
| Aniline-skin                         | 2   | 10   | 5   | 20   |
| Anisidine (o-poisoners)-skin         | 0.1 | 0.5  | -   | -    |
| Arsenic & compounds (as)             | -   | 0.2  | -   | -    |
| Benzene                              | 10  | 30   | -   | -    |
| Bromine                              | 0.1 | 0.7  | 0.3 | 2    |
| 2 Butanone Methyl ethyl Ketone - MEK | 200 | 590  | 300 | 885  |
| n-Butyl acetate                      | 150 | 710  | 200 | 950  |
| sec/tert. Butyl acetate              | 200 | 950  | 250 | 1190 |
| Cadmium-dust and salts (as Cd)       | -   | 0.05 | -   | 0.2  |
| Calcium Oxide                        | -   | 2    | -   | -    |
| Carbaryl (Sovin)                     | -   | 5    | -   | 10   |
| Carbofuran (Furadan)                 | -   | 0.1  | -   | -    |
| Carbon disulphide-skin               | 2   | 60   | 30  | 90   |
| Carbon monoxide                      | 50  | 55   | 400 | 440  |
| Carbon tetrachloride-skin            | 10  | 65   | 20  | 130  |

Substances

Permissible limits of exposure

Time-weighted average concentration      Short-term maximum concentration

|   | Time-weighted average concentration |                   | Short-term maximum concentration |                   |
|---|-------------------------------------|-------------------|----------------------------------|-------------------|
|   | ppm                                 | mg/m <sup>3</sup> | ppm                              | mg/m <sup>3</sup> |
| Carbonyl chloride (Phosgene)                  | 0.1                                 | 0.4               | -                                | -                 |
| Chlordane-skin                                | -                                   | 0.5               | -                                | 2                 |
| Chlorobenzene (monochloro-benzene)            | 75                                  | 350               | -                                | -                 |
| Chlorine                                      | 1                                   | 3                 | 3                                | 9                 |
| bis-Chloromethylether                         | 0.001                               | -                 | -                                | -                 |
| Chromic acid and chromates (as Cr.)           | -                                   | 0.05              | -                                | -                 |
| Chromium. Sel-Chromic, Chromous salts (as Cr) | -                                   | 0.5               | -                                | -                 |
| Copper fume                                   | -                                   | 0.2               | -                                | -                 |
| Cotton dust, raw                              | -                                   | 0.2               | -                                | 0.6               |
| Cresol, all isomers-skin                      | 5                                   | 22                | -                                | -                 |
| Cyanides, (as CN)-skin                        | -                                   | 5                 | -                                | -                 |
| Cyanogen                                      | 10                                  | 20                | -                                | -                 |
| DDT (Dichlorodiphenyl-trichloro-ethane)       | -                                   | 1                 | -                                | 3                 |
| Demeton-skin                                  | 0.01                                | 0.1               | 0.03                             | 0.3               |
| Diazion-skin                                  | -                                   | 0.1               | -                                | 0.3               |
| Dibutyl phthalate                             | -                                   | 5                 | -                                | 10                |
| Dichlorvos (DDVP)-skin                        | 0.1                                 | 1                 | 0.3                              | 3                 |
| Dieldrin-skin                                 | -                                   | 0.25              | -                                | 0.75              |
| Dinitrobenzene (all isomers) skin             | 0.15                                | 1                 | 0.5                              | 3                 |
| Dinitrotoluene-skin                           | -                                   | 1.5               | -                                | 5                 |
| Diphenyl                                      | 0.2                                 | 1.5               | 0.6                              | 4                 |
| Endosulfan (Thiodan)-skin                     | -                                   | 0.1               | -                                | 0.3               |
| Endrin-skin                                   | -                                   | 0.1               | -                                | 0.3               |
| Ethyl acetate                                 | 400                                 | 1000              | -                                | -                 |
| Ethyl alcohol                                 | 1000                                | 1900              | -                                | -                 |
| Ethyl amine                                   | 10                                  | 18                | -                                | -                 |

|  |       |      |       |      |
|--|-------|------|-------|------|
| Flourides (as F)                                       | -     | 2.5  | -     | -    |
| Flourine   | 1     | 2    | 2     | 4    |
| Hydrogen Cyanide-skin                                  | 10    | 11   | 15    | 16   |
| Hydrogen sulfide                                       | 10    | 15   | 15    | 27   |
| Iron oxide fume (Fe <sub>2</sub> O <sub>3</sub> as Fe) | -     | 5    | -     | 10   |
| Isoamyl acetate  | 100   | 525  | 125   | 655  |
| Isoamyl alcohol  | 100   | 360  | 25    | 450  |
| Isobutylalcohol  | 50    | 150  | 75    | 225  |
| Lead, inorg. fumes and dusts (as Pb)                   | -     | 0.15 | -     | 0.45 |
| Lindane-skin   | -     | 0.5  | -     | 1.5  |
| Mala thion-skin  | -     | 10   | -     | -    |
| Manganese fume (as Mn)                                 | -     | 1    | -     | 3    |
| Mercury (as Hg)  | -     | 0.05 | -     | 0.15 |
| Mercury (alkyl compounds)-skin (as Hg)                 | 0.001 | 0.01 | 0.003 | 0.03 |

**Substances** **Permissible limits of exposure**  
 Time-weighted Short-term maximum average concentration concentration

|  | ppm<br>200 | mg/m <sup>3</sup><br>260 | ppm<br>250 | mg/m <sup>3</sup><br>310 |
|--|------------|--------------------------|------------|--------------------------|
| Methyl alcohol (methanol) skin             |            |                          |            |                          |
| Methyl cellosolve-skin (2-methoxy ethanol) | 25         | 80                       | 35         | 120                      |
| Methyl isobutyl ketone-skin                | 100        | 410                      | 125        | 510                      |
| Naphthalene                                | 10         | 50                       | 15         | 75                       |
| Nickel carbonyl (as Ni)                    | 0.05       | 0.35                     | -          | -                        |
| Nitric acid                                | 2          | 5                        | 4          | 10                       |
| Nitric oxide                               | 25         | 30                       | 35         | 45                       |
| Nitrobenzene-skin                          | 1          | 5                        | 2          | 10                       |
| Oil mist-mineral                           | -          | 5                        | -          | 10                       |
| Parathion-skin                             | -          | 0.1                      | -          | 0.3                      |
| Phenol-skin                                | 5          | 19                       | 10         | 38                       |
| Phorate (Thimet)-skin                      | -          | 0.05                     | -          | 0.2                      |
| Phosgene (Carbonyl chloride)               | 0.1        | 0.4                      | -          | -                        |
| Phosphine                                  | 0.3        | 0.4                      | 1          | 1                        |
| Phosphorous (yellow)                       | -          | 0.1                      | -          | 0.3                      |
| Phosphorous pentachloride                  | -          | 1                        | -          | 3                        |
| Phosphorous trichloride                    | 0.5        | 3                        | -          | -                        |
| Picric acid-skin                           | -          | 0.1                      | -          | 0.3                      |
| Pyridine                                   | 5          | 15                       | 10         | 30                       |
| Silane (silicon tetrahydride)              | 0.5        | 0.7                      | 1          | 1.5                      |
| Styrene, monomer (phenyl-ethylene)         | 100        | 420                      | 125        | 525                      |
| Sulphur dioxide                            | 5          | 13                       | -          | -                        |
| Sulphuric acid                             | 1          | 1                        | -          | -                        |
| Toluene (toluol)-skin                      | 100        | 375                      | 150        | 560                      |
| o-Toludine                                 | 5          | 22                       | 10         | 44                       |
| Trichloroethylene                          | 100        | 535                      | 150        | 800                      |
| Vinyl chloride                             | 5          | 10                       | -          | -                        |
| Welding fumes (NOC)                        | -          | 5                        | -          | -                        |
| Xylene (o-m-isomers)-skin                  | 100        | 435                      | 150        | 655                      |

**TABLE 2**

| Substance  | Permissible time weighted average concentration                   |                         |
|--|---|-------------------------|
| <b>1. Silica</b>   |   |                         |
| (a) Crystalline  |   |                         |
| (i) Quartz   |   |                         |
| (1) In terms of dust count:-   | % Quartz+10   | 1060 mppcm              |
| (2) In terms of respirable dust                                      | 10 mg/m <sup>3</sup>  | % respirable quartz + 2 |
| In terms of total dust: 30 mg/m <sup>3</sup> % quartz + 3            |   |                         |
| (ii) Cristobalite  | Half the limits given against quartz                              |                         |
| (iii) Tridymite  | Half the limits given against quartz                              |                         |
| (iv) Silicafused   | Same limit as for quartz  |                         |
| (v) Tripoli  | Same limit as in formula in item 2 given against quartz           |                         |
| (b) Amorphous  | 705 mppcm   |                         |
| <b>2. Silicate having less than 1% free silica by weight</b>         |   |                         |
| (a) Asbestos (fibres longer than 5 microns)                          | 2 fibres/cubic centimetre   |                         |
| (b) Mica   | 705 mppcm   |                         |
| (c) Mineral Wool fibre   | 10 mg/m <sup>3</sup>  |                         |
| (d) Perlite  | 1060 mppcm  |                         |
| (e) Portland cement  | 1060 mppcm  |                         |
| (f) Soapstone  | 705 mppcm   |                         |
| (g) Tale (nonfibrous form)   | 705 mppcm   |                         |
| (h) Tale (fibrous)   | Same limit as for asbestos  |                         |
| (i) Tremolite  | Same limit as for asbestos  |                         |
| <b>3. Coal dust</b>  |   |                         |
| (1) For airborne dust having less than 5% silicon di-oxide by weight | : 2mg/m <sup>3</sup>  |                         |
| (2) For airborne dust having over 5% silicon-di-oxide                | : Same limit as prescribed by formula in item (2) against quartz. |                         |

**TABLE 3**

| Substance                     | Permissible limit of exposure |                   |
|-------------------------------|-------------------------------|-------------------|
|                               | ppm                           | mg/m <sup>3</sup> |
| Acetic anhydride              | 5                             | 20                |
| O-Dichlorobenzene             | 50                            | 300               |
| Formaldehyde                  | 2                             | 3                 |
| Hydrogen Chloride             | 5                             | 7                 |
| Manganese & compounds (as Mn) | -                             | 5                 |
| Nitrogen dioxide              | 5                             | 9                 |
| Nitroglycerin-skin            | 0.2                           | 2                 |
| Potassium hydroxide           | -                             | 2                 |
| Sodium hydroxide              | -                             | 2                 |
| 2,4,6 - Trinitrotoluene (TNT) | -                             | 0.5               |



















|  |       |  |  |
|--|-------|--|--|
|  |       |  | inspection of lifting<br>tackles.  |
|  |       |  | relevant code of<br>current conversant   |
|  |       |  | metallurgy of the  |
|  |       |  | Conversant with<br>heat treatment  |
|  |       |  | techniques as<br>applicable to   |
|  |       |  | components and<br>parts of lifting<br>tackles.   |
|  | plant | Electrical or Metallurgical<br>Engineering or a degree<br>equivalent thereto | certification of the<br>person in charge<br>of erection or<br>(b) testing,<br>examination and<br>pressure testing<br>(i) He shall be |
|  |       |  | relevant codes of<br>practice and test<br>to pressure vessels;   |































































Office

INFORMATION

FOR

USE ONLY

|                                     |                   |              |                                |                                    |                                     |                                    |   |
|-------------------------------------|-------------------|--------------|--------------------------------|------------------------------------|-------------------------------------|------------------------------------|---|
| 1. Name of the person examined      | 2. Age            | 3. Sex       | 4. Occupation                  | 5. Address                         | 6. Date of examination              | 7. Name of the Certifying Surgeon  | 8. Signature of the Certifying Surgeon  |
|                                     |                   |              |                                |                                    |                                     |                                    |   |
| 9. Nature of the injury or ailment  | 10. Date of onset | 11. Duration | 12. Cause of injury or ailment | 13. Name of the hospital or clinic | 14. Name of the attending physician | 15. Name of the Certifying Surgeon | 16. Signature of the Certifying Surgeon |
|                                     |                   |              |                                |                                    |                                     |                                    |   |
| 17. Name of the person examined     | 18. Age           | 19. Sex      | 20. Occupation                 | 21. Address                        | 22. Date of examination             | 23. Name of the Certifying Surgeon | 24. Signature of the Certifying Surgeon |
|                                     |                   |              |                                |                                    |                                     |                                    |   |
| 25. Nature of the injury or ailment | 26. Date of onset | 27. Duration | 28. Cause of injury or ailment | 29. Name of the hospital or clinic | 30. Name of the attending physician | 31. Name of the Certifying Surgeon | 32. Signature of the Certifying Surgeon |
|                                     |                   |              |                                |                                    |                                     |                                    |   |

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ascertained from the

2. He may be produced for further examination after a period of.....

3. The serial number of the previous certificate is.....

Signature or left-hand thumb impression of person examined:

Date:

Signature of Certifying Surgeon:

|   |   |  |                                     |
|---|---|--|-------------------------------------|
| I certify that I examined the person mentioned above on | I extend this certificate until (if certificate is not extended, the period for which the worker is considered unfit for work is to be mentioned) | Signs and symptoms Observed during Examination | Signature of the certifying surgeon |
|   |   |  |                                     |

**FORM-XXV**  
**(Sec Rule 51)**

| <b>Details of ISMW employed/to be employed in the establishment</b> |  |  |  |  |
|---|--|--|--|--|
| <b>1</b>  | <b>Name of the Contractor with address:</b>                              |  |  |  |
|   | <b>1A</b>  | <b>LIN/Pan No. of the Contractor</b>         |  |  |
|   | <b>1B</b>  | <b>Email id of the contractor</b>            |  |  |
|   | <b>1C</b>  | <b>Mobile No. of the Contractor</b>          |  |  |
| <b>2</b>  | <b>Name of the Sub-Contractor through whom recruitment has been made</b> |  |  |  |
|   | <b>2A</b>  | <b>LIN/Pan No. of the Sub-Contractor</b>     |  |  |
|   | <b>2B</b>  | <b>Email id of the Sub-Contractor</b>        |  |  |
|   | <b>2C</b>  | <b>Mobile No. of the Sub-Contractor</b>      |  |  |
| <b>3</b>  | <b>Name of the Establishment</b>   |  |  |  |
|   | <b>3A</b>  | <b>LIN/Pan No. of the Establishment</b>      |  |  |
|   | <b>3B</b>  | <b>Email id of the Establishment</b>         |  |  |
|   | <b>3C</b>  | <b>Mobile No. of the Establishment</b>       |  |  |
| <b>4</b>  | <b>Name of the Principal Employer</b>                                    |  |  |  |
|   | <b>4A</b>  | <b>LIN/Pan No. of the Principal Employer</b> |  |  |
|   | <b>4B</b>  | <b>Email id of the Principal Employer</b>    |  |  |
|   | <b>4C</b>  | <b>Mobile No. of the Principal Employer</b>  |  |  |
| <b>5</b>  | <b>Name of the state in which the place of work is located</b>           |  |  |  |
| <b>6</b>  | <b>Name of the State in which recruitment was made</b>                   |  |  |  |

| Serial Number | Details of migrant workman |                       |                | Sex M/F/O | Age | Present Home Address | Name and address (Including Mobile No) of the next of kin of the migrant workman | Place and address of residence in the home state | Amount of Displacement allowance paid |
|---------------|----------------------------|-----------------------|----------------|-----------|-----|----------------------|--|--|---------------------------------------|
| 1             | (a) Name                   | (b) UAN/ Aadha ar No. | (c) Mobile No. | 3         | 4   | 5                    | 6  | 7  | 8                                     |
|               |                            |                       |                |           |     |                      |  |  |                                       |

| 9 | Amount of outward/return journey allowance paid | 10 | Amount of wages for outward/return Journey period paid | 11 | Total Wages paid | 12 | Nature of work required to be performed | 13 | Date of Recruitment | 14 | Date of employment | 15 | Details of rates of wages and other allowances payable | 16 | Details of rates of wages and other allowances paid | 17 | Period of contract of employment and total days worked | 18 | Details of Other Service Conditions | 19 | Remarks |
|---|---|----|--|----|------------------|----|---|----|---------------------|----|--------------------|----|--|----|---|----|--|----|-------------------------------------|----|---------|
|   |   |    |  |    |                  |    |   |    |                     |    |                    |    |  |    |   |    |  |    |                                     |    |         |

Date

Seal & Signature  
of the contractor

**FORM-XXVI**

[See rule 109]

**APPLICATION UNDER SUB-SECTION (4) OF SECTION 56 FOR COMPOUNDING OF OFFENCE.**

1. Name of applicant.....
2. Father's / Husband's name of the applicant.....
3. Address of the applicant .....
4. Mobile number/email .....
5. Name, address, Mobile no, and email of Complainant .....
6. Whether any case pending before any authority or Court in the same matter .....
7. If Yes, Particulars .....
8. Particulars of the offence.....
9. Section of the Code under which the offence is committed .....
1. .... 3. ....
2. .... 4. ....
10. Maximum fine provided for the offence under the Code .....
11. Whether the offence is first offence or the applicant had committed any other offence prior to the offence, if had committed, then, full detail of the offence.....
- .....
- .....
- .....
12. Any other information which the applicant desires to provide .....
- .....
- .....

Dated:

Applicant (Name & Signature)

**FORM-XXVII**  
**APPLICATION FOR NO OBJECTION CERTIFICATE**

1. Name & Address of Applicant:
2. Name & Address of Unit:
3. Name of Manufacturing Process:
4. Total Manpower:
5. Total Motive Power in H.P.:
6. Complete Process Flow Chart:                      Occupiership / Partnership:                      Attached/ Not Attached.
7. Control No.
8. Mail Id.(if any)

Signature of Applicant  
(with Date)

**FORM-XXVIII**  
**NO OBJECTION CERTIFICATE**

This has reference to the application dated .....of .....(Name of Applicant)....., Occupier of .....(Name of unit with address).....

In consideration of the proposed unit's manpower ....., motive power ..... H.P/ KW/ KVA and manufacturing process (.....) it has been observed that the unit does not meet the requirements to be declared as a "Factory", hence need not be registered & licensed under the Factories Act, 1948 & Rules made there under, until the position changes.

Inspector-cum -Facilitator of Factories

To

.....  
.....  
.....

(Name of Occupier  
with complete address of the unit)

\_\_\_\_\_