



## LABOUR, EMPLOYMENT, SKILL DEVELOPMENT AND ENTREPRENEURSHIP

Government of Mizoram

Page Links: <https://lesde.mizoram.gov.in/post/the-draft-code-on-occupation-safety-health-working-conditions-rules-2023-regp>

### The Draft Code on Occupation Safety Health & Working Conditions Rules, 2023 - reg

1. Ministry of Labour & Employment has decided to formulate the Labour Code on Occupational Safety Health & Working Condition Act, 2020 by amalgamating, simplifying and rationalizing all existing Labour Laws (Mizoram under LESDE Deptt.) related to the Factories Act, 1948, the Contract Labour (Regulation and Abolition) Act, 1970, the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979, and the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996.

2. Continuing the pre-legislative consultative process, the Draft of the Labour Code on Occupational Safety, Health & Working Condition (Mizoram) Rules, 2023 is being placed on the web-site:

Website: [lesde.mizoram.gov.in](https://lesde.mizoram.gov.in) (<https://lesde.mizoram.gov.in>) or 45 days for information, consultations and comments of the stakeholders.

3. Employers' Organizations and Trade Unions recognized by the State Government are invited to give their suggestions/comments/input, if any, on this revised Code. Comments may be submitted, latest by **28<sup>th</sup> April, 2024**, by e-mail to Director, Labour, Employment, Skill Development & Entrepreneurship, Plot No. A/28, Earth Day Road, Near Baptist Church, MINECO, Khatla, Aizawl, Mizoram -796001.

Email address : [directorledmz@gmail.com](mailto:directorledmz@gmail.com)  
(mailto:28%20rel='nofollow'%20target='\_blank'%3Edirectorledmz@gmail.com).

In order to facilitate proper consideration, the comments/suggestions on the Draft Code must be in following format:

Name of the Organization/Government :

Address:

E-mail :				
Name of Contact Person:				
Designation:				
Mobile:				
Section/Sub-section Clause/Proviso of the Draft Code	Issue/Problem identified in the Section / Sub- section / Clause/ Proviso of the Draft Code	Proposed/Change that should be made	Reason for proposed change	Remarks, if any

In order to facilitate proper consideration, the comments/suggestions on the Draft Code must be in following format:

It may be noted that all suggestions / comments should be submitted through recognized Employers' / Workers' Associations only. Individual comments from any individual or institution will not be entertained.

Date for formal consultation meeting shall be communicated separately.


**Sd/-**

Secretary to the Govt. of Mizoram

Labour, Employment, Skill Development & Entrepreneurship Department

Mizoram, Aizawl

### Attachment

 Draft Code on Occupational Safety Health & Working Conditions Rules, 2023 (/uploads/attachments/2024/03/8f160d86cd18af5abfd41d7f80b6cfab/posts-146-draft-code-on-occupational-safety-health-working-conditions-rules-2023.pdf)

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# The Mizoram Gazette

## EXTRAORDINARY

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#### NOTIFICATION

No. B. 14015/7/2021-LESDE, the 5<sup>th</sup> February, 2024. No. B.14015/7/2021-LESDE : The following draft of the Notification which the State Government proposes to issue is hereby pre-published as required by section 137(b) of the Occupational Safety, Health & Working Condition Code 2020 for information of all persons likely to be affected thereby and notice is hereby given that the said draft notification will be taken into consideration after the expiry of period of 45 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 Labour Commissioner, LESDE Department. The objections and suggestions should be sent in a proforma containing columns (i) specifying the name and address of the person/organization and column (ii) specifying the rule or sub-rule which is proposed to be modified and column (iii) specifying the revised rule or sub-rule proposed to be substituted and reasons thereof; Only those objections and suggestions, which are received from any person or organization with respect to the said draft notification before expiry of the period specified above, will be considered by the State Government.

Lalramsanga Sailo,  
Secretary to the Government of Mizoram,  
Labour, Employment, Skill Development & Entrepreneurship Department.

#### THE DRAFT CODE ON OCCUPATIONAL SAFETY, HEALTH & WORKING CONDITIONS RULES, 2023.

In exercise of the powers conferred under section 133 and section 135 of the Occupational Safety, Health and Working Conditions Code, 2020 (Central Act 37 of 2020) and in supersession the Mizoram Building and Other Construction Workers (Regulation of Employment and Condition of Services) Rules, 2015, the Mizoram Factories Rules, 2014, the Mizoram Contract Labour (Regulation and Abolition) Rules, 2004 and Inter-State Migrant Workmen (Regulation of employment and conditions of Service) Mizoram Rules, 2005 published in the Mizoram Extraordinary Vol. XLV S.E. 1938 Issue No. 134 dt. 20.6.2016, Vol. XLIV S.E. 1936 Issue No. 101 dt. 4.3.2015, Vol. XXXIV S.E. 1927 Issue No. 137 dt. 16.6.2005 and Vol. XXXIV S.E. 1927 Issue No. 138 dt. 16.6.2005 except as respect things done or omitted to be done before such supersession, the Government of Mizoram is pleased to make the following rules, namely:-

CHAPTER- I  
PRELIMINARY

1. Short title, extent and commencement.-
  - (1) These rules may be called the Mizoram Occupational Safety, Health and Working Conditions Rules, 2023.
  - (2) They shall extend to the whole of Mizoram.
  - (3) They shall come into force on the date of their publication in the Official Gazette.
  
2. (1) In these rules, unless the context otherwise requires.-
  - a) "Appendix" means an appendix appended to these rules.
  - b) "Approved" means approved in writing or issued through portal by the Chief Inspector-cum Facilitator or the officer notified by the State Government in this regard.
  - c) "Artificial humidification" means the introduction of moisture into the air of a room by any artificial means whatsoever; except the unavoidable escape of a steam or water vapour into the atmosphere directly due to a manufacturing process:  
Provided that the introduction of air directly from outside through moistened mats or screens placed in opening at times when the temperature of the room is [26.5oC] or more, shall not be deemed to be artificial humidification.
  - d) "Belt" includes any driving any strap or rope.
  - e) "Board" means State Occupational Safety and Health Advisory Board constituted under section 17 of the Code.
  - f) "Code" means the Occupational Safety, Health and Working Conditions Code, 2020 (Central Act 37 of 2020);
  - g) "Continuous process" means the materials either dried bulk or fluids that are being processed and are continuously in motion, undergoing chemical reaction and are subject to mechanical or heat treatment or any other process specified by State Government;
  - h) "Degrees" (of temperature) means degrees on the [Celsius] scale.
  - i) "Electronically" means any information submitted by email or uploaded on the portal or making digital payment through any mode for the purposes of Code;
  - j) "First employment" means the first employment in any manufacturing process to which the relevant Schedule applies and shall also include re-employment in the manufacturing process following any cessation of employment for a continuous period exceeding three calendar months;
  - k) "Form" means the form appended to these rules;
  - l) "Fume" includes gas or vapour.
  - m) "Hazardous waste" means the hazardous waste as defined in clause (17) of sub-rule (1) of rule 3 of the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016.
  - n) "Health officer" means the Municipal health officer in a municipality or Corporation, the District Health Officer concerned in any area within in the jurisdiction of a District Board or such other officer as may be appointed by the State Government for any area in that behalf irrespective of whether such area is within the limits of a Municipality or the jurisdiction of a district board.
  - o) "Hygrometer" means an accurate wet and dry bulb hygrometer conforming to the prescribed conditions as regards constructions and maintenance.
  - p) "industrial activity" means- any activity in the industry which includes. -
    - i. an operation or process carried out in an industrial installation referred to in Schedule 4 of the Manufacture, Storage and Import of Hazardous Chemical

Rules, 1989 involving or likely to involve one or more hazardous chemicals and includes on-site storage or on-site transport which is associated with that operation or process, as the case may be; or

- ii. isolated storage; or
- iii. pipeline;
- q) "isolated storage" means storage of a hazardous chemical, other than storage associated with an installation on the same site specified in schedule 4 of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 where that storage involves at least the quantities of that chemical set out in Schedule 2 of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989;
- r) "LESDE" means Labour, Employment, Skill Development and Entrepreneurship.
- s) "Major accident" means an incident involving loss of life inside or outside the factory or ten or more injuries inside and / or one or more injuries outside or release of toxic chemical or explosion or fire or spillage of hazardous chemical resulting in 'on-site' or 'off site' emergencies or damage to equipment leading to stoppage of process or adverse effect to the environment;
- t) "Major accident hazard (MAH) installation" means the definition prescribed under rule 2 (ja) of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989;
- u) "National Standard" means standards approved by the Bureau of Indian Standards and in the absence of such Standards the standard approved by the State Government for this purpose
- v) "Pipeline" means a pipe (together with any apparatus and works associated therewith) or system of pipes (together with any 1 Substituted by Rule 2(ii) of the Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000 notified vide S.O.57(E), dated 19th January, 2000. The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 and work associated therewith for the conveyance of a hazardous chemical other than a flammable gas as set out in Column 2 of Part II of Schedule 3 at a pressure of less than 8 bars absolute; the pipeline also includes inter -state pipelines;
- w) "Plant or Equipment" includes any plant, equipment, gear, machinery, apparatus or appliances or any part thereof
- x) "portal" means the web portal maintained by the State Government for the purpose of the Code.
- y) "Power" means electrical energy or any other form of energy which is mechanically transmitted and is not generated by human or animal
- z) "Pressure" means pressure above atmospheric pressure
- aa) "Pressure Plant" means the pressure vessel along with its piping and other fittings operated at a pressure greater than the atmospheric pressure
- ab) "Prime Mover" means any engine, motor or other appliance which generates or otherwise provides power
- ac) "Recognized university or institution" means,
  - i. any University, incorporated by law, by the Central or any State Government; or
  - ii. any other University or Institution which is declared by the State Government to be arecognized University or Institution for the purposes of these rules;
- ad) "Public Health Authority" means the Local Public Health Officer having jurisdiction over the area.
- ae) "Schedule" means the Schedule appended to these rules;
- af) "section" means the section of the Code;

- ag) "Threshold quantity" means, - the term defined in the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989; and
  - ah) "Year" means the period of twelve months beginning from the 1st day of January in any year.
- (2). The words and expressions used in these rules which are not defined therein, but are in the Code, shall have their respective meaning as assigned to them in 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

4. Application for registration of establishment.-
- (1) The application for registration of establishment under sub-section (1) and (2) of the Code shall be made in Form-I.
  - (2) The said application shall be submitted electronically on the official portal of the LESDE Department, Government of Mizoram:  
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 Mizoram State, and manual submission of application in the form so provided, may be allowed.
  - (3) The application shall be accompanied with a declaration from the applicant that application is in accordance with provisions of the Code and rules made thereunder, and the applicant fulfills the requirement of registration of the establishment.
  - (4) The applicant shall pay the registration fee and the late fee (if applicable) along with application.
  - (5) After submission of the application, the Registering Officer shall dispose of the application and issue a registration certificate in the manner as given under section 3 of the Code.
  - (6) The registering officer shall maintain a register of establishment electronically in Form-II showing the particulars of establishment in relation to which certificates of registration have been issued.
  - (7) Fee for registration of the establishment and late fee shall be notified by the State Government from time to time.
5. Notice of commencement and cessation of operation.-  
The employer of every establishment being factory or relating to contract labour or building or other construction works shall within thirty days of the commencement or cessation of operation or completion of any work submit to the registering officer and in Form-III, electronically or otherwise 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. Form-III shall be auto shared to Employees Provident Fund Organisation and Employees State Insurance Corporation.

CHAPTER-III  
DUTIES OF EMPLOYER AND EMPLOYEE

6. Duties of employers to provide Annual Health Examination of employees.-
- 1) The employer shall ensure a health examination of every employee who has completed forty-five years of age, at least once in every twelve months. The employee who had met an accident resulting in a serious bodily injury shall also be examined. The employees shall also be medically examined within 15 days of their induction or prior to employment. The expense of such examination shall be borne by the employer: The medical examination shall be conducted by a qualified medical practitioner as per the proforma in Form - IV;  
Provided that the employees engaged in hazardous processes or dangerous operations shall be examined after every six month or earlier in accordance with the provisions specifically provided in the code or rules for the same.
  - 2). The health examination shall be conducted by a qualified medical practitioner. Records of such annual examination shall be maintained in Form-V as a Health Register and if the conducted examination is for new employment, it shall be maintained in Form-VI as a Certificate of fitness. Findings of such examination shall be shared with the concerned employee.
7. Particulars and form of Letter of appointment.-
- 1) The employer shall issue a letter of appointment to every employee in the establishment on his appointment or prior to commencing his work. The letter of appointment shall include the particulars specified in Form - VII.
  - (2) The employer shall also ensure the systematic allotment of a distinct number or code for every employee and shall issue an identity card bearing such employee code and other necessary particulars within one month of his appointment.
8. Notice of accidents and dangerous occurrences.-
- (1) When any accident which results in the death of any person or which results in such bodily injury to any person as is likely to cause his death, or any dangerous occurrence takes place in a factory, the Employer of the factory shall forthwith send a notice in Form – VIII thereof by telephone, special messenger or electronically to the District Labour and Employment Officer, Inspector cum facilitator of Factories and the Chief Inspector-cum-Facilitator.
  - (2) When any accident or any dangerous occurrence as specified in the class of occurrence stated below- which results in the death of any person or which results in such bodily injury to any person as is likely to cause his death, takes place in a factory, notice as mentioned in sub-rule shall also be sent to:-
    - (a) the District Magistrate or Sub-Divisional Officer,
    - (b) the Officer-in-charge of the nearest police station, and
    - (c) the relatives of the injured or deceased person.
    - (d) District Labour and Employment Officer.
  - (3) Any notice given as required under sub-rules (1) and (2) shall be confirmed by the Employer of the factory to the authorities mentioned in the above sub-rules within 12 hours of the accident or the dangerous occurrence by sending them a written report in Form-VIII in the case of an accident or dangerous occurrence causing death or bodily injury to any person and in the case of a dangerous occurrence which has not resulted in any bodily injury to any person.

- (4) No person shall be allowed to disturb the site at which a fatal accident has occurred or any objects involved in the accident before the arrival of the Inspector-cum-Facilitator, or a police officer, not below the rank of a Sub-Inspector, or without the consent of such officer, provided that such condition may be taken as may be necessary to prevent a further accident or to secure persons from danger.
  - (5) The following class of occurrence shall be dangerous occurrence within the meaning of these rules, namely:-
    - (i) Bursting of any plant or pipeline or equipment containing petroleum, steam, compressed air or other substance at a pressure greater than the atmospheric pressure;
    - (ii) Collapse or failure of a crane, derrick, winch, hoist or other appliances used in raising or lowering persons or goods, or any part thereof, or the overturning of a crane;
    - (iii) Explosions, fire, leakage or release of harmful toxic gases, bursting out, leakage or escape of any molten metal, or hot liquid or gas causing bodily injury to any person or damage to any room or place in which persons are employed;
    - (iv) Explosion of a receiver or container used for the storage at pressure greater than atmospheric pressure of any gas or gases (including air) or any liquid or solid resulting from the compression of gas;
    - (v) Reporting of a communicable disease among more than 10 workers at a time
    - (vi) Collapse or failure of lifting appliances or hoist or conveyors or other similar equipment for handling building or construction material or breakage or failure of rope, chain or loose gears; overturning of cranes used in building or other construction work, falling of objects from height;
    - (vii) Collapse of any wall, floor, gallery, roof bridge, tunnel, chimney, wall, building or subsidence of soil or any other structure, platform, staging, scaffolding or any means of access including formwork; excavation and collapse of material handling equipment;
    - (viii) Spillage or leakage of hazardous substances and damage to their container;
    - (ix) Collapse, capsizing, toppling or collision of transport equipment within the establishment/ factory;
    - (x) Fall from height of any excavation, loading or transport machinery;
    - (xi) an instantaneous failure of a pillar, part of a pillar or several pillars of coal (i.e. a bump) in working below ground;
    - (xii) A rock-burst in working belowground, a premature collapse of any part of that work;
    - (xiii) A breakage, fracture or failure of an essential part of any machine or apparatus whereby the safety of persons may be endangered;
    - (xiv) A failure of any structure or installation whereby the safety of persons may be endangered, or spark generated due to electrical flash-over causing burn injury to any person;
    - (xv) A major uncontrolled emission of petroleum or chemical spillage;
    - (xvi) Any occurrence arising out of a Natural Calamity.
9. Notice of disease.-
- 1) Where any worker in an establishment contracts any disease specified in the third Schedule of the Code, the employer of the factory shall send a notice electronically or otherwise in Form- IX to Inspector- cum-Facilitator, Chief Inspector-cum-Facilitator and Chief Medical Officer of the district within seven days from the date on which it comes to the knowledge of the employer or employer of the establishment.
  - 2) If any qualified medical practitioner attends on a person who is or has been employed in a 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, he shall forthwith send a

report electronically or otherwise to Chief Inspector-cum-Facilitator or District Labour and Employment Officer stating: -

- a) the name and full postal address of the patient,
- b) the disease from which he believes the patient to be suffering, and
- c) the name and address of the factory in which the patient is or was last employed.

10. Duties of employee.-

If an employee comes to know that of any unsafe or unhealthy condition in the establishment, he shall report to the employer, or health and safety representative or safety officer or employer in as soon as practicable, in FORM-X (a).

11. Rights of employee.-

On receipt 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 in FORM-X(b), to the Inspector-cum-facilitator electronically or by registered speed post or by telephone within twenty-four hours of receiving such information.

#### CHAPTER-IV OCCUPATIONAL SAFETY AND HEALTH ADVISORY BOARD.

12. State Occupational Safety and Health Advisory Board.-

- (1) The Board Constituted under subsection (1) of section 17 of the Code shall consist of –
  - (a) Hon'ble Minister, LESDE Department, Mizoram – Chairman;
  - (b) Secretary, LESDE Member - ex officio;
  - (c) Chairman, Mizoram Pollution Control Board, Member - ex officio;
  - (d) Labour Commissioner, - Member Secretary;
  - (e) Regional Director, ESIC - Member;
  - (f) Director, Health Services, Mizoram; Member - ex officio;
  - (g) Two representatives of employers;
  - (h) Two representatives of employees;
  - (i) A representative of professional body Associated with matter for which rules and policies been framed – member;
  - (j) Two eminent persons connected with field of occupational safety, health or from reputed establishments or research institutions – member;
- (2) The term of office of the members referred to in clauses (g), (h), (i) and (j) of sub rule (1) of rule 12 shall be three years and they shall be nominated and appointed by the State Government.
- (3) Technical Committee and advisory committee as specified in sub- section (3) of section 17 shall be notified by the State Government.

13. Resignation of members of the Board.-

- (1) A member of the Board, other than an ex-officio member, may by writing under his hand addressed to the Chairman resign his office at any time.
- (2) The Chairman shall take decision to accept or reject the resignation letter, within a month. The resignation shall be deemed to have come into effect from the date of acceptance of the resignation or on the date of expiry of one month from the date of receipt of resignation letter whichever is earlier and the seat of such member shall fall vacant with effect from that date.

- (3) 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.
  - (4) The Board shall inform the Government regarding the acceptance of resignation of a member.
14. Filling up casual vacancies.-  
When vacancies arise in the Board due to resignation, death or removal of a member or otherwise, the Member 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.
15. 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 Chairman.
  - (2) The Chairman 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 Chairman shall have powers to call special meeting of the Board at any time to decide any matter which is urgent.
16. Notice of Meeting. -
  - (1) The Member Secretary shall give notice of the meeting at least ten 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) For special meeting convened under sub-rule (3) of rule 15 to consider any urgent matter, two days prior notice informing the subject shall be given to each member.
17. 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 Member 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 17 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.
18. Presiding over of the Meeting.-
  - (1) The Chairman shall preside over every meeting of the Board.
  - (2) If the Chairman 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 Chairman, 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 (2) shall have and exercise all the powers and rights of the Chairman.
19. 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 Chairman 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.
20. 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 Chairman.
  - (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 Chairman.
21. Minutes of the Meeting.-
  - (1) The Member Secretary shall prepare the minutes of the meeting and the Chairman and the Member Secretary shall affix their signatures on it.
  - (2) The minutes signed by the Chairman shall be read over to the members in the next meeting. Modifications, if any, made thereon shall be signed by the Chairman and the Member Secretary after such modification and confirmation on it.
22. 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) The Board shall pay to every non-official member travelling allowance and daily allowance for attending the meeting of the Board at such rates admissible to Class I Officers of the Government.
  - (3) Travelling allowance and daily allowance for attending the meeting of the Board to every official member, including the ex-officio member secretary, shall be paid by the Board at the rate admissible to him as per the rules applicable to him for journeys performed on official duty.
  - (4) For the purpose of calculation of travelling allowance of a member, the place of his residence/ office shown in his appointment order as a member will be taken as his headquarters.
23. Safety Committee.-
  - (1) In every Factory or Building and other construction work,
    - a) wherein one hundred or more employees are ordinarily employed; or
    - b) carries on "hazardous process" defined under section 2 (za) of the Code; or
    - c) carries on any process or operations declared to be "dangerous operations" under section 82 of the Code; there shall be a safety committee to be set up by the employer.
  - (2) The representatives of the management on Safety Committee shall include
    - a) A senior official, who by his position in the organization can contribute effectively to the functioning of the committee, shall be the Chairman;
    - b) A Safety Officer and a Factory Medical Officer wherever available and the Safety Officer in such a case shall be the Secretary of the Committee.
    - c) A representative each from the production, maintenance and purchase departments wherever available.
  - (3) The representatives of the workers on the Safety Committee shall be chosen by the workers; Provided that if any registered trade union or unions is functioning in the establishment the representatives of the workers shall be nominated by such union or unions in proportion

to their membership. Where there is no registered trade union, workers may choose amongst themselves their representatives;

Provided further that, there shall be adequate representation of women workers in safety committee.

- (4) The tenure of the safety committee shall be for three years.
- (5) Safety Committee shall meet as often as necessary but at least once in every quarter of the year. The minutes of the meeting shall be recorded and produced to the Inspector-cum Facilitator on demand.
- (6) 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 workplace.
  - b) Data on accidents as well as data resulting from surveillance of the working environment and of the health of workers exposed to hazardous substances so far as the factory is concerned, provided that the Committee undertakes to use the data on a confidential basis and solely to provide guidance and advice on measures to improve the working environment and the health and safety of the workers.

24. Qualifications of Safety Officer.-

- (1) No person shall be eligible for appointment as a Safety Officer unless he:—
  - (a) possesses a degree in any branch of Engineering or Technology from a recognized University established by law and has had practical experience of working in a factory in a supervisory capacity in production or maintenance or Safety Department for a period of not less than two years; or
  - (b) possesses a master degree in Physics or Chemistry from a recognized University established by law and has had practical experience of working in a factory in a supervisory capacity in production or maintenance or Safety Department for a period of not less than two years; or
  - (c) possesses a diploma in any branch of Engineering or Technology recognized by the State Government and has had practical experience of working in a factory in a supervisory capacity in production or maintenance or safety department for a period of not less than five years; or
  - (d) possesses a recognized degree in any branch of Engineering or Technology, and has had experience of not less than two years in a department of the Central or the State Government; or
  - (e) Possesses a recognized degree in any branch of Engineering or Technology, and has had at least five years' experience of working in institutions dealing with training, education, consultancy or research in the field of accident prevention in industry.

25. Duties of Safety Officer.-

- (1) The duties of a Safety Officer shall be to advise and assist the factory management in the fulfillment of its obligations, statutory or otherwise, concerning prevention of personal injuries and maintenance of a safe working environment. These duties shall include the following, namely: -
  - (a) to advise the departments concerned in planning and organizing measures necessary for the effective control of personal injuries;
  - (b) to advise on safety aspects in all job 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 advise the purchasing and stores departments in ensuring high quality and availability of personal protective equipment;

- (e) to advise on matter related to carrying out plant safety inspections;
  - (f) 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;
  - (g) to render advice on matters related to reporting and investigation of industrial accidents and diseases;
  - (h) to investigate selected accidents;
  - (i) to investigate the cases of industrial diseases contracted and dangerous occurrences reportable under these rules;
  - (j) to advise on the maintenance of such records as are necessary relating to accidents, dangerous occurrence and industrial diseases;
  - (k) to promote setting up of safety committees and act as adviser and catalyst to such committees;
  - (l) to organize in association with the departments concerned, campaigns, competitions, contests and other activities which will develop and maintain the interest of the workers in establishing and maintaining safe conditions of work and procedures; and
  - (m) to design and conduct either independently or in collaboration with the training department, suitable training and educational programmes for the prevention of personal injuries.
- (2) No Safety Officer shall be required or permitted to do any work which is inconsistent with the department to the performance of the duties prescribed in rule 26.

26. Number of Safety Officers.-

- 1) In every establishment which is a
  - (a) factory wherein Five Hundred or more workers, or
  - (b) factory carrying on hazardous process wherein two hundred fifty workers or more; or
  - (c) building and other construction work wherein two hundred and fifty workers or more are ordinarily employed, not less than one safety officer shall be appointed by the employer.

Provided that:

- (a) for a factory specified in clause (a) and (c), one additional safety officer shall be appointed if number of workers employed are more than 1000 but not exceeding to 1500. And another safety officer shall be appointed for every additional 1000 workers or part thereof;
- (b) for an establishments specified in clause(b), one additional safety officer shall be appointed if number of workers employed are more than 500 but not exceeding 750. And another safety officer shall be appointed for every additional 500 workers or part thereof.

CHAPTER-V  
HOURS OF WORK AND ANNUAL LEAVE WITH WAGES.

27. Daily and weekly working hours.-

- (1) No worker shall be required or allowed to work in an establishment for more than forty-eight hours in a week.
- (2) If a worker works on daily basis in an establishment, the period of work of such worker shall be so arranged that inclusive of his interval for rest shall not spread over for more than ten and half hours per day.

- (3) If the worker works in the establishment for six days in a week, the period of work of a worker shall be so arranged that inclusive of his interval for rest shall not spread over for more than ten and half hours per day and the seventh day of the said week for the worker shall be a paid holiday.
- (4) If the worker works in the establishment for less than six days in a week arising due to provision of flexibility in working hours, the period of work of a worker shall be so arranged that inclusive of his interval for rest shall not spread over for more than twelve hours per day and the remaining days of the said week for the worker shall be paid holidays.  
 Provided that the flexibility in working hours shall be permitted with the consent of sole negotiating union, negotiating union or negotiating council under the Industrial relations Code, 2020 (35 of 2020) or with the consent of majority of workers in the absence of such negotiating union or negotiating council.
- (5) No worker shall be allowed to work for more than five hours continuously before he has had an interval for rest of at least half an hour.

28. Conditions for exemption of workers from weekly and compensatory holidays.-

- (1) Workers engaged on urgent work or in any emergency which could not have been foreseen or prevented;
- (2) Workers engaged in a work in the nature of preparatory or complimentary work which must necessarily be carried on outside the limit laid down for general working in the employment concerned;
- (3) Workers whose employment is essentially intermittent;
- (4) Workers in any work which for technical reason has to be completed before the duty is over;
- (5) Workers engaged in a work which could not be carried on except at times depend on the irregular action of natural forces.
- (6) In the case of workers engaged in any work, which for technical reasons, must be carried on continuously throughout the day.

29. Hours and limitation of overtime work.-

- (1) 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.
- (2) 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 rounded and shall be counted as an hour on actual basis.
- (3) 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.
- (4) the spread over for the workers shall exceed ten and half hours in any one day under the following works and circumstances in factories, dock works 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 intermittent 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 wagons or lorries or trucks;
  - (k) engaged in any work, which is notified by the Central or State Government in the Official Gazette as a work of national importance:  
Provided that no worker shall be allowed to work overtime exceeding four hours in aday and 24 hours in a week and one hundred twenty five hours in any quarter of a year.
30. Exemption from the restriction on double employment.-
- (1) 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.
31. Notice of periods of work.-
- (1) 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 XI and copy of such notice shall be sent to Inspector-cum-Facilitator electronically.

#### CHAPTER-VI MAINTENANCE OF REGISTERS, RECORDS AND RETURNS.

32. Maintenance and production of reports, registers and other records.-
- (1) Every employer shall maintain the following registers electronically and shall be kept available at the office of the establish mentor the nearest convenient building within the precincts of the establishment;
    - (a) Register of Wages and Deduction in Form-XII
    - (b) Register of accidentand dangerous occurrences in Form-XIII
    - (c) Register of leave with wages in Form-XIV
    - (d) Register of adolescent workers in Form-XV shall be maintained.
    - (e) Muster-roll in Form- XVI shall be maintained.
  - (2) Wage slip in Form-XVII shall be issued to the employee by the employer in every month.  
Provided that the employer shall give an attendance card in Form- XVIII to every person employed in his factory. A fresh card shall be issued to each employee on the first day of every calendar month. The employer or his representative should mark his initials or

- affix any stamp mark specially made for the purpose on each of the date columns in the card for each day of presence of the person, every day and shall return the card to the person before he leaves the factory for the day. The card is to be collected again every day when the person reports for the work. The Chief inspector cum Facilitator may exempt any factory with such conditions as he deem necessary from complying with this rule if he is satisfied that the registers maintained in the factory are correct and upto date.
- (3) The registers under sub – rule (1) shall be preserved in original for a period of five calendar years after the date of the last report or entry:  
 Provided that when the original record is lost or destroyed before the expiry of five year period, true copies thereof, if available, shall be preserved for the prescribed period:  
 Provided further that any establishment or group or class of establishment may maintain such registers manually with prior permission of the Chief Inspector cum Facilitator and in such case the registers shall be legibly entered in English or Mizo or the language understood by the majority of the persons employed therein;
- (4) The registers maintained under sub -rule (1) shall be produced on demand electronically or by registered post, before the Chief Inspector-cum-Facilitator or an Inspector-cum-Facilitator or any person authorized in this behalf by the Government.
33. Display of address, condition and pay of work, accident and hazard history of the establishment on notice board.-  
 Every employer shall cause to display at the conspicuous place of the workplace of the establishment under his control, a notice showing the following details, namely: -
- a) the name and address of the establishment;
  - b) hours of work;
  - c) wage period and date of payment of wages;
  - d) details of unpaid wages, if any;
  - e) details of accident or dangerous occurrences, if any, in the establishment for the preceding five years; and
  - f) name, address and phone number of the Inspector-cum-Facilitator or District Labour and Employment Officer having jurisdiction in English, Mizo or in the language understood by the majority of the workers.
34. Return Filing of.-  
 Every employer of an establishment shall send annually a return in Form XIX electronically to the Inspector-cum-Facilitator having jurisdiction so as to reach him not later than 1st February following the end of each calendar year.

#### CHAPTER-VII INSPECTOR-CUM-FACILITATOR AND OTHER AUTHORITY.

35. Qualification for the post of Chief Inspector-cum-Facilitator: -  
 The Labour Commissioner, Government of Mizoram will be the Chief Inspector-cum-facilitator.
36. Power to take samples of any articles or substances.-  
 (1) An Inspector-cum-facilitator shall take sufficient samples of any substances, used or intended to be used in an establishment after informing the employer of the establishment, as per the inspection scheme mandated under the portal and in the manner hereinafter provided, namely:-  
 (a) in the belief of the Inspector-cum-Facilitator in contravention of any of the provisions of this Code or the rules made there under, 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 employer informed under that sub-section or any other entrusted by the employer on this behalf, unless the employer or such other person willfully absents himself, divide the sample into three portions and effectively seal and suitably mark them, and shall permit the employer or such other person to affix 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. If the employer informed under sub rule (1) or such other person willfully absent or abstains from affixing his seal and mark, the inspector cum Facilitator may get the signature and seal, if any, of an independent witness upon the sealed samples.
- (4) The Inspector-cum-Facilitator shall-
  - (a) forthwith give one portion of the sample to the person informed under sub-rule (1):  
Provided that the employer or such other person is not willing to receive the portion of the sample, inspector cum Facilitator shall record it and retain it with him.
  - (b) forthwith send the second portion to a Government Analyst or National 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.

37. Powers and duties of Inspector-cum-Facilitator.-

- (1) The Inspector Cum Facilitator may photograph any worker, to inspect, examine, measure, copy, photograph, sketch or test as the case may be any building or room, any plant, machinery, appliance or apparatus, any register or documents, or anything provided for the purpose of securing the health, safety or welfare of the employees employed in establishment.
- (2) 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.
- (3) 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.
- (4) Inspector-cum-Facilitator shall, after every inspection, as may be deemed necessary, issue inspection orders electronically pointing out the non-compliance of provisions of safety, health and working conditions under the Code, Rules and regulations framed there under, to the employer or occupier or owner.
- (5) An Inspector-cum-Facilitator shall, at each inspection, ascertain to what extent any shortcomings noticed 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 the inspection, together with any order passed by him under the Code, Rules or regulations made thereunder shall be recorded and maintained.
- (6) Inspector-cum-Facilitator shall, after every inspection, as may be deemed necessary, issue improvement notice or prohibition order in Form-XX 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 their agent.

38. Qualifications and experience of experts.-  
The Government may notify, in the official gazette, the qualifications and experience to be possessed by the experts empanelled under the scheme for audit and certification of startup establishments or other classes of establishments.
39. Manner of providing alternate employment.-  
Every employer or occupier: as the case may be, shall provide employment to the affected workers in other areas of the factory or in other factory under the ownership of the same Employer or Occupier:  
Provided that the wages of the affected person shall be protected and shall provide additional allowance for travel and accommodation, if required:  
Provided further that if the whole or a part of the factory closed by an order, then it shall be the duty of the occupier or employer, as the case may be, to pay wages to the affected workers as per the Code on Wages, 2019 (Central Act No. 29 of 2019) for the number of days for which the factory remained closed.
40. Qualification and appointment of Medical Officer.-  
(1) The Medical Officer appointed by the Government of Mizoram under this rule shall be a medical practitioner who possesses qualification as defined in the National Medical Commission Act, 2019 (Central Act 30 of 2019) and who is enrolled on Indian Medical Register or on a State Medical Register as defined in that Act.  
(2) In respect of factory carrying hazardous process or dangerous operations, in addition to the qualifications mentioned above, a person should possess a certificate of Training in Industrial Health of minimum three months duration or should possess a Diploma in Industrial Health recognized by the Central or State Government.
41. Other establishment engaging in dangerous occupations or processes for medical examination.-  
Workers working in establishment engaging in the following dangerous occupations or processes shall be eligible for medical examination and certification: -  
(a) Operations declared dangerous under section 82 of the Code;  
(b) Factories carrying hazardous process as per Schedule 1 of the Code;  
(c) Treatment of Biomedical waste;  
(d) Sewerage treatment;  
(e) Solid waste management;  
(f) Marble cutting;  
(g) Ready mix concrete;  
(h) Hot mix concrete;  
(i) Working at height;  
(j) Operation of crane or heavy-duty machinery; or  
(k) Such other occupation or process as may be notified by the State Government from time to time, to be dangerous.
42. Medical supervision clause.-  
(1) A Medical Officer appointed under sub-section (1) of section 42 of the Code shall carry out examination and furnish report as Government may direct:  
(a) for examination and certification of workers in an establishment in such dangerous occupation or processes as specified in First Schedule of 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.
- (2) (a) On receipt of a reference under clause (c) sub-section (2) of section 42 of the Code or otherwise, 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.
- (b) The Medical Officer may seek opinion of specialists like radiologist, dentist and orthopedic surgeon as the case may be, for the purpose of determination of age.
- (3) Process for medical fitness examination:
- (a). A medical officer shall, on the application of any adolescent or his parent or guardian accompanied by a document signed by the employer of a factory that such person will be employed therein if certified to be fit for work in a factory, or on the application of the employer of the factory in which any adolescent wishes to work, examine such person and ascertain his fitness for work in a factory.
  - (b). The medical officer, after examination, may grant to such adolescent, in Form XXI or may renew, a certificate of fitness to work in a factory as an adolescent, if he is satisfied that the adolescent has completed his fourteenth year, has attained the prescribed physical standards and is fit for such work:  
 Provided that unless the Medical Officer has personal knowledge of the place where the adolescent proposes to work and of the manufacturing process in which he will be employed, he shall not grant or renew a certificate under this sub-rule until he/she has examined such place.
  - (c) A certificate of fitness granted or renewed under sub-rule (2),
    - a) shall be valid only for a period of twelve months from the date thereof;
    - b) may be made subject to conditions with regard to the nature of the work in which adolescent may be employed, or requiring re-examination of the adolescent before the expiry of the period of twelve months.
  - (d) A medical officer shall revoke any certificate granted or renewed under sub-rule (2), if in his opinion the holder of it is no longer fit to work in the capacity stated therein in a factory.
  - (e) Where a certificate under this rule with reference to any adolescent is granted or renewed subject to such conditions as are referred to in sub-rule(3), the adolescent shall not be required or allowed to work in any establishment/ factory, except in accordance with those conditions.
  - (f) Fee required for medical examination must be paid by the employer and shall not be recoverable from the adolescent, his parents or guardian. The Fee for medical examination shall be paid electronically as fixed by the State Government by notification from time to time.
  - (g) Medical Officer shall maintain record of examinations under this rule in Form-V.
43. Other establishment where medical examination and certification of adolescent is required.- Adolescent workers shall obtain medical fitness certificate in FORM-XXI for employment in following process, namely:-

- (a) Head-load workers;
- (b) treatment of Biomedical waste;
- (c) sewerage treatment;
- (d) solid waste management;
- (e) marble cutting;
- (f) ready mix concrete;
- (g) hot mix concrete;
- (h) working at height;
- (i) operation of crane or heavy-duty machinery; or
- (j) such other occupation or process as may be notified by the State Government from time to time, to be dangerous.

#### CHAPTER-VIII SPECIAL PROVISIONS RELATING TO EMPLOYMENT OF WOMEN

44. Conditions relating to safety, holidays and working hours or any other condition to be observed by the employer.-
- (1) No woman worker shall be required or allowed to work for more than nine hours in any day or for more than forty eight hours in any week.
  - (2) The following conditions shall be met for employment of women during night or before 6.00 a.m. and beyond 7.00 p.m. in any day, namely, -
    - (a) the consent of women employee shall be taken;
    - (b) no women shall be employed against the maternity benefit provisions laid down under the Social Security Code, 2020 (Act 36 of 2020);
    - (c) adequate transportation facilities shall be provided to women employee to pick-up and drop such employee to the doorstep of 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 womenemployee are employed;
    - (f) Provide safe, secure and healthy working condition such that no women employee is disadvantaged in connection with her employment;
    - (g) The provisions of the Sexual Harassment of Women at workplace (Prevention, Prohibition and Redressal)Act, 2013 (Central Act 14 of 2013), as applicable to the establishments, shall be complied with.
    - (h) It shall be the duty of the employer to prevent or deter the commission of acts of sexual harassment and to provide the procedures for the resolution, statement or prosecution of acts of sexual harassment by taking all steps required;
    - (i) The employer shall take appropriate steps to prevent sexual harassment;
    - (j) In case of any criminal case of sexual harassment, the employer shall initiate appropriate action in accordance with the penal law without delay and also ensure that victims or witnesses are not victimized or discriminated while dealing with the complaints of sexual harassment and wherever necessary, at the request of the affected worker, shift or transfer the perpetrator, if circumstances warrant. The employer shall take appropriate disciplinary action if such conduct amounts to misconduct which outrage the modesty of the women worker in or during the employment;
    - (k) The employer shall maintain a complaint mechanism in the establishment itself and the said mechanism shall ensure time-bound treatment of complaints. Such mechanism

should be at any rate to provide, when necessary, an Internal Compliance Committee, a special counselor or other support services including the maintenance of confidentiality;

- (l) Such an Internal Compliance Committee shall be headed by a woman and not less than half of its members shall be women, besides a non-governmental organization's representation in the Committee. Such person shall be familiar with the issues of sexual harassment;
  - (m) The women workers shall be allowed to raise issues of sexual harassment in the employee's meeting and other appropriate forum;
  - (n) The women workers shall be made aware of their rights in particular by prominently notifying the guidelines on the subject;
  - (o) Wherever there is a harassment at the instance of a third party, either by an act or omission, the employer and person in charge of the establishment shall take all steps necessary and reasonable to assist the affected persons in terms of support and preventive action;
  - (p) The employer shall provide proper lighting not only inside the factory, but also surroundings of the establishment and to all places where the women workers may move out of necessity in the course of such shift;
  - (q) 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;
  - (r) Sufficient women security shall be provided during the night shift at the entry as well as exit points;
  - (s) Separate dormitory accommodation shall be provided for women workers after the working hours in night shift, if required;
  - (t) Mess room shall be provided for the female employees;
  - (u) 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;
  - (v) During night shift not less than 1/3rd-of strength of the supervisors or shift-in-charge or foreman or other supervisory staff shall be women wherever applicable;
  - (w) 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
  - (x) 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.
45. Safeguards to the employment of women.-
- (1) No pregnant woman shall be allowed to work in a factory involved in dangerous operation, where she is likely to be exposed to hazardous substances which are carcinogenic for herself and teratogenic (for fetus).
  - (2) Proper dress code shall be maintained for the women workers working in dangerous operation.
  - (3) No women workers shall be employed in the dangerous operation against the maternity benefit provisions under the Social Security Code 2020.
  - (4) All the measures as mentioned in the provisions related to dangerous operation shall be complied with.

- (5) Women shall be well trained on their job, shall be rendered knowledge about the hazardous properties of the substances being handled, stored, manufactured, hazardous present at their workplace, and measure to overcome with that.
- (6) Women employed shall be provided with all the necessary personnel protective equipment at the workplaces, they are deployed.
- (7) Women shall be trained and made aware about the means of escape in the events of fire, leakage, spillage hazardous substances.
- (8) Pregnant women worker shall be deployed for work only in locations where other women worker/workers are working.

#### CHAPTER-IX CONTRACT LABOUR & INTER-STATE MIGRANT WORKERS

#### 46. Conditions of License.-

The license issued under these rules shall be subject to the following conditions, namely: -

- (a) the license shall be non-transferable;
- (b) except 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;
- (c) the rates of wages payable to the workers by the contractor shall as per the Code on Wages, 2019 (Central Act No. 29 of 2019) and rules made there under;
- (d) in case where the worker employed by the contractor performs the same or similar kind of works as the worker directly employed by the 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 employer of the establishment on the same or similar kind of work;
- (e) in every establishment where the number of workers are ordinarily employed as contract labour is fifty, there shall be provided the facility of crèche in accordance with the rules.
- (f) the licensee shall notify any change in the number of workers or the conditions of work to the designated authority;
- (g) a copy of the license shall be displayed prominently at the premises where the contract work is being carried on; and
- (h) the contractor shall be liable to comply with the relevant provisions of the Code.

#### 47. Form and manner of application for contractor license.-

- (1) Application for issuing license shall be made in Form-XXII to the designated authority on Portal.
- (2) Every application referred to in sub-rule (1) shall also be accompanied by the security and fees at the rates which shall be notified by the State Government from time to time.
- (3) Payments as required under sub-rule (2) shall be paid through portal which shall be credited to the treasury in the head of account as may be specified by the State Government from time to time.
- (4) After receiving application on portal, the designated authority shall issue license in XXIII within a period of forty-five days specifying the conditions laid down in rule 46.

#### 48. Procedure for issue of license.-

- (1) Before a license is issued, bank guarantee for an amount calculated at the rate as notified by the State Government from time to time 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 the provisions of the Code or the rules made there under.

- (2) The fees to be paid for the grant or renewal of a license shall be as notified by the State Government from time to time.
49. Procedure for Grant or Renewal or Amendment of license.-
- (1) Every application for grant of license under Rule 47 shall be submitted thirty days prior to the commencement of employment of contract labour.
  - (2) Every application for renewal of license shall be submitted on the portal at least forty five days prior to expiry of the license period but not before 90 days of such expiry of license.
  - (3) Every application for amendment shall be submitted along with fees and additional security deposit, if required, with respect to the change in number of contact labourers.
  - (4) On receipt of such application for grant or renewal of the license, as the case may be, if the licensing officer is of the opinion that the license should not be granted or renewed he shall after affording reasonable opportunity to the applicant to be heard and make an order rejecting the application. In case the authority does not grant, renew or reject the application within forty-five days of its submission before him, the license shall be granted or renewed automatically.
  - (5) If the application for grant or renewal is not received within the time specified in sub-rule (1) or (2) as the case may be, an additional fee of twenty-five per cent, shall be payable.
50. Refund of security deposit.-
- (1) If the contractor does not intend to hold the license any more at any time before its expiry or to renew the license further, may make an application in Form-XXIV electronically or otherwise to the licensing authority for the refund of the security deposited by him along with the copy of license, notice of completion of work, an affidavit stating that no amount due to any worker and the bank details in which amount is required to be refunded.
  - (2) 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.
  - (3) If there is any order directing the forfeiture of any portion of security deposit, the amount to be forfeited shall be deducted from the security deposit, and balance, if any, shall be refunded to the contractor.
  - (4) An application for refund shall, as far as possible, be disposed of within thirty days of the receipt of the application.
51. Responsibility of contractor.-
- (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, 2019 (Central Act 29 of 2019) and where the higher rates have been fixed by agreement, settlement or award, not less than the rates so fixed.
  - (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 not be less favorable than those applicable to the workers directly employed by the principal employer of the establishment for the same or similar kind of work. In case of any dispute whether the work is the same or of similar kind, the matter be referred to the authority notified by the government whose decision shall be final.
  - (3) In all 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 on Wages, 2019 and rules made there under.

- (4) All contract labourers shall be made member of Employees Provident Fund Organisation and Employees State Insurance Corporation subject to applicability as under respective provisions of the Code on Social Security, 2020.
  - (5) The contractor shall notify changes, if any, with respect to the number of workers or conditions of work to the Licensing Authority, electronically.
52. Intimation of work order and time limit for intimation.-  
Every contractor or his authorized representative shall, within fifteen days of the receipt of a contract work, submit electronically to the authority appointed under section 119 of the Code a statement 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 and duration of work order.
53. Suspension or cancellation of license.-  
If the contractor fails to give intimation to the authority referred in sub section (1) of section 119 of the Code after affording an opportunity of being heard, if satisfied that the failure of intimation is intentional, the authority may suspend or cancel the license:  
Provided that the contractor, if aggrieved by an order of the licensing authority within thirty days of receipt of order, may file an appeal to appellate authority notified under rule 54.
54. Appeal:  
The appellate authority under sub-section (1) of section 52 of the Code shall be notified by the State Government.
55. Responsibility of Payment of wages.-
  - (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 in accordance with Code on Wages 2019 and rules made thereunder.
  - (3) The contractor when it is not practicable to pay wages as prescribed in sub section (2) of Section 55 of the Code can pay wages directly to the employee.
56. Making payment of wages from the security deposit amount.-  
If the contractor or principal employer fails to pay the wages to the contract labour employed by him, the Labour Commissioner or any officer authorized by him or the licensing authority or the competent officer as may be notified by the government 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. The contractor shall re-furnish the security deposit within a period of fifteen days or else his licence will be liable to be suspended.
57. Experience Certificate.-  
Every contractor shall issue on demand, an experience certificate in Form-XXV to the contract labour giving details of the period, work performed, experience gained in various fields performed by such contract labour.
58. Prohibition of employment of contract labour.-  
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 electronically or in any other manner, to the authority

notified by the State Government under clause (c) of sub – section (2) of section 57 of the Code, giving reasons along with supporting documents. The authority after making necessary inquiry shall within sixty days report his findings to Government.

59. Journey allowance to Inter-State Migrant Worker.-  
The employer shall pay to every inter-State migrant worker employed in his establishment, in a year a lump sum amount of fare for to and fro journey to his native place from the place of his employment based on the following conditions, namely:-
- (1) the minimum service of the worker entitled for journey allowance shall be one hundred and eighty days;
  - (2) the journey allowance shall be provided for minimum second class fare by train or bus; and
  - (3) the employer shall pay a lump sum amount of one hundred rupees per family member per day for the period of travel of the worker (if family is staying with him at the location of his workplace) for food during the journey.
60. Setting up of a toll free helpline number to the inter-state migrant worker.-  
A toll-free help-line number shall be provided by Labour, Employment, Skill Development & Entrepreneurship Department, to address queries and grievances of the inter-state migrant workers.
61. Study of inter-state migrant workers.-  
The State Government may by notification engage any institution or agency for the study of Inter-state migrant workers from time to time.

#### CHAPTER-X AUDIO-VISUALWORKER

62. Agreement for audio-visual worker. –
- (1) The form of agreement for the audio-visual workers with the producer is given in Form-XXVI
  - (2) Every such agreement shall be registered with the competent authority notified under Clause (b) of sub section (1) of section 66 of the Code by the State Government.
63. Procedure for reference of disputes to a Conciliation Officer or a Tribunal. -  
The procedure for reference of dispute to a conciliation officer or a tribunal shall be in conformity with the Industrial Relations Code, 2020 and Rules madethereunder.

#### CHAPTER- XI BEEDI AND CIGAR WORKERS.

64. Form of application for grant of license and license fees.-
- (1) Every application under sub-section (1) of section 74 of the Code for a license to use or allow to use any place or premises as an industrial premises shall be made electronically in Form–XXII in the portal
  - (2) The application shall be accompanied by the following documents, namely,-
    - (a) plan showing-
      - (i) the site of such place or premises, the areas there in 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
      - (ii) the plant, 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 end, passage-ways in or in relation to the various buildings which are intended to be used for manufacturing processes;

(b) the fee for the license as specified in Rule 68 shall be paid electronically.

65. Application for renewal.-

- (1) Every application for renewal of a licence under sub section 5 of Section 74 of the Code shall be made in Form-XXII electronically through the portal and the fee for renewal shall be paid electronically.
- (2) Every application for renewal of license shall be submitted on the portal atleast forty five days prior to expiry of the licence period but not before 90 days of such expiry of licence.
- (3) The reason for refusal of renewal of licence shall be intimated to the employer within thirty days of receipt of application under sub-rule (1).

66. Form and terms and conditions of licence.-

- (1) A license granted under Sub section 5 of Section 74 of the Code shall be in Form- XXII.
- (2) Every license granted or renewed under Section 74 shall be subject to the following conditions namely:
  - (i) the manufacturing process shall be carried on only in that part of the industrial premises specified for the purpose in the license;
  - (ii) the maximum number of employees employed in the industrial premises shall not on any day exceed the number specified in the license;
  - (iii) power-driven machinery not specified in the license shall not be used in the manufacturing process in the premises;
  - (iv) except with the prior permission in writing of the competent authority the industrial premises shall not be extended and except with the like permission, no structural alterations shall be made in any building or such premises;
  - (v) the licence shall not be transferable;
  - (vi) except as provided in Rule 67, the fees paid for the grant or renewal of the licence, as the case may be, shall be non-refundable.

67. Appeal.-

An appeal under section 75 of the Code may be file delectronically with required fee specified under Rule 66 within a period of thirty days from the date of receipt of the order sought to be appealed against.

68. Fees and manner of payment.- (1) The fees to be paid for the grant or renewal of licence under Section 74 and 75 shall be as notified by the State Government.

69. Refund of fees.- If the competent authority refuses to grant or renew any licence under Section 74, it shall order there fund of the fees paid thereof.

70. Conditions for permit for cutting and wetting under sub-section (1) of section 76.-

- (1) The Government may permit the wetting or cutting of beedi or tobacco leaves by employees outside the industrial premises on an application made to it by employer on behalf of such employees.
- (2) The employer shall maintain in the prescribed form a record of the work permitted under sub-section (1) to be carried on outside the industrial premises.
- (3) Save as otherwise provided in this section, no employer shall require or allow any manufacturing process connected with the making of beedi or cigar or both to be carried on outside the industrial premises:

Provided that nothing in this sub-section shall apply to any labour who is given raw material by an employer or a contractor for being made in to beedi or cigar or both at home

71. Record of outside work.-

The record to be maintained by the employer of the work permitted under sub-section (2) of Section 76 of the Code to be carried on outside the industrial premises shall be in Form-XXVII.

CHAPTER - XI  
 FACTORIES

72. Approval of site, construction or extension of a factory under sub-section (1) (a) (b) of section 79 of the Code.

(1) No site shall be used for the location of a factory nor shall any building be constructed, reconstructed or extended for use as a factory, nor shall any manufacturing process be carried on in any building, constructed, reconstructed or extended unless the previous permission in writing is obtained from the State Government or the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator. The previous permission of the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator shall also be obtained for the installation of additional machinery or for the installation of prime movers exceeding the power already installed in the factory. The previous permission of the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator shall also be obtained for increasing the number of workers specified in the license.

(2) Application for such permission shall be made in the prescribed Form XXVIII through the portal electronically. The application shall contain the details such as the Name and address of the applicant, full particulars of the factory such as name, postal address, survey number, Village, Taluk, District and also the total power of plant and machinery in KiloWatt number of workers. The application shall be accompanied by the following documents:

(a) A flow chart of the manufacturing process supplemented with a brief description of the process in its various stages.

(b) Plans drawn to scale showing:

(i) the site of the factory and immediate surroundings (100m radius) including adjacent buildings and other structures, roads, drains, etc.

(ii) the plan, elevation and necessary cross-sections of the various buildings, indicating all relevant details relating to fire fighting facilities with layout, lighting, ventilation and means of escape in case of fire.

(iii) The plans of layout of machinery clearly indicating the position of the plant and machinery, aisles and passage ways. There shall be a minimum clearance of 50 cm. between machines and fixed structures. The plans and layout of factory buildings sent to the Department for approval under these rules shall be prepared by a person not below the rank of an approved draughtsman recognized by the Chief Inspector-cum-Facilitator.

(3) Site suitability-

The site of the factory shall satisfy the following requirement of minimum distance from-

1. Educational Institution	25meters
2. Hospitals	30meters
3. Religious-cum-worship building	25meters
4. Tank and canals	10meters

and set back of three meters of open space of front, sides and rear. For sites abutting National Highways and State Highways the minimum set back of the building shall be 7m on front:

Provided that the Chief Inspector-cum-Facilitator or Labour Commissioner or Joint Labour Commissioner may subject to such conditions as may be prescribed, relax these requirements in respect of factories which do not create noise, pollution or do not generate solid, liquid or gaseous effluents.

- (4) If the Chief Inspector-cum-Facilitator or Labour Commissioner or Joint Labour Commissioner is satisfied that the plans are in consonance with the requirements of the Code and Rules he shall, subject to such conditions as he may specify, grant the permission sought for under permit and approve the plans by digitally affixing his signature and making available the approved drawings electronically through the portal as the case may be or he/she may call for such other particulars as he/she may require to enable such approval. The permission so granted will be valid for a period of two years only unless it is revalidated, for completion of construction. Request for revalidation of permission shall be made to the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator as the case may be along with the fee prescribed through the portal.
- (5) The plans approved by the Chief Inspector-cum-Facilitator or Labour Commissioner or Joint Labour Commissioner under this rule shall be readily available in the factory in electronic mode for inspection by the Inspector-cum-Facilitators.
- (6) The Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator or Joint Labour Commissioner may refuse to grant permission if the requirements of the Code and Rules are not satisfied and in such cases the reasons for refusing the permission shall be recorded and communicated to the Applicant.
- (7) a) No manufacturing process shall be carried on in any building of a factory constructed, reconstructed or extended or taken into use as a factory or part of a factory until a Certificate of Stability in Form- XXIX in respect of that building has been obtained from a Competent Person:  
 Provided that the Certificate of Stability as required in this Rule shall be valid only for a maximum period of five years from the date of its issue and a fresh stability certificate shall be obtained thereafter.
  - b) The certificate of stability referred to in clause (a) shall be readily available in the factory for inspection by the Inspector-cum-Facilitators.
- (8) a) A factory or part of a factory constructed, reconstructed, extended or taken into use, shall be in accordance with the plans approved and shall satisfy the conditions subject to which the plans have been approved.
  - b) No machinery or prime mover or a permanent fixture not shown in the plans approved shall be installed, fixed or used in any factory except in replacement provided its capacity is not different and it is not occupying more floor area than that already shown in the approved plans.

### 73. Application for grant of license.-

The occupier of every factory shall submit to Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator an application for grant of license and notice of occupation, in Form-XXVIII electronically through the portal.

- (1) A license for a factory may be granted by the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator in Form-XXIX, on an application made in the prescribed form in online mode through the portal electronically and on payment of the fees specified in Appendix-B notified by State Government from time to time:

Provided that subject to the provision of sub-section (3) of section 79 of the Code the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator may refuse or

grant of license for the following reasons and communicate such decisions in writing to the occupier, namely: -

- (a) The plans of the factory are not approved under rules made in this behalf.
  - (b) There requirements under rule 72 are not satisfied.
  - (c) There is imminent danger to human life due to the presence of explosive or inflammable dust, gas, fumes or mixture beyond permissible level and effective measures are not taken to remove such danger
  - (d) There is imminent danger to human life due to the building or the entrances thereto or exists the reform is in a dangerous or structurally unsound condition and effective measures are not taken to remove the danger, and
  - (e) Such other reasons, as may be recorded in this behalf.
- (2) Every license granted under the aforesaid section shall remain in force for a maximum period of 5 years, from the date of approval, subject to payment of such fee as required.
  - (3) No manufacturing process shall be carried on in any factory without a license having been granted by the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator and is inforce for the time being.
  - (4) The license granted to a factory under this rule, shall be readily available in the factory for inspection by the Inspector-cum-Facilitator/Additional Inspector-cum-Facilitator appointed under Section 34 of the Code.

74. Amendment of license. -

- (1) The license granted under this rule may be amended by the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator.
- (2) The limits specified in the license granted to a factory in regard to power or the number of persons employed shall not be altered or the name of the factory or the manufacturing process shall not be changed unless the licenseh as been amended for that purpose.
- (3) An application for amendment of a license shall be submitted to the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator specifying the nature of amendment sought for and the reasons therefore atleast 15 days prior to the date on which the applicant desires the amendment to take effect. The application shall be submitted in the portal electronically.
- (4) The fee for the amendment shall be as prescribed in Appendix-A plus the difference between the fee that has been paid for the license and the fee that is payable for the license (Appendix – B), had it been originally issued in the amended form:  
 Provided that if the limit specified in the license is exceeded without making the application asaforesaid, the license shall be amended only on payment of a fee of 100% in excess of the fee ordinarily payable under this rule for getting the license in the amended form.
- (5) On the receipt of such application the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator may amend the license suitably, if the statutory requirements are complied with or he/she may call for such other particulars or details or make such enquiries which he/she considers necessary before amending the license. The Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator shall incorporate the amendment in the appropriate columns of the original license with digital signature if he/she agrees to the amendment or may refuse the amendment and return the license to the applicant. The amendment shall take effect from the date on which it is amended;  
 Provided that if an application for amendment is refused, the reason for the same shall be recorded and communicated to the applicant through the portal electronically or in any other manner.

## 75. Renewal of license.-

- (1) A license shall be renewed by the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator.
- (2) Every application for the renewal of license shall be in the prescribed Form-XXVIII and shall be submitted to the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator or through electronic mode in the portal electronically before the date on which the license expires and if the application is so made the premises shall be held to be duly licensed until such date as the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator under sub-rule (i) renews the license or till the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator intimates the applicant in writing his refusal to renew the license as the case may be.
- (3) Renewal of License can also be obtained through Auto renewal process in the portal by submitting self-certification as follows. Namely, -
  - (a) I understand that as per provisions of the Code and rule, if the applicant obtained licence by fraud or misrepresentation competent authorities can refuse and reject the application and legal action will be initiated against me.
  - (b) I have verified all the data shown to me in Form-XXVIII and undertake that they are all correct and no deviations from the same and also from the details mentioned in the latest permit issued to me is existing in my Factory at the time of submission of this application.
  - (c) I undertake that any modifications, additions, extensions to the factory premises, building or machinery or on any data related to the factory, from the date of submission of this application shall be immediately brought to the notice of the concerned Inspector through proper means as per Rules and Regulations.
  - (d) I undertake that no statutory proceedings initiated by the Department of Factories and Boilers are pending against me (except for those under the purview of the Hon'ble Courts) on the date of submission of this application.
  - (e) I undertake that my Factory complies with all applicable provisions under Code and rules.
  - (f) I undertake that my Factory possesses all statutory clearances and legal documents as required for renewal of license and they are valid at the time of submission of this application and for such extended renewal period as required.
  - (g) I understand that the Department of Factories and Boilers reserves its right to cancel my auto renewed license at any time within its validity period, if any data submitted by me is found to be falsified or if any data is suppressed from the Department at the time of submission of this application in accordance with the relevant provisions of the Code and Rules.
- (4) The fee for the renewal or auto renewal of a license shall be the same as that for the grant of license, in case an application for renewal has been made for renewal for a maximum period of 5 years. The renewal fee shall be the number of years multiplied by the fees payable for renewal of license for one year as specified in Appendix-B:
 

Provided that if the application for renewal is not received within the time specified, the license shall be renewed only on payment of an additional fee of 50 % of the fee ordinarily payable if the application is received after the expiry of the license; Provided further that the State Government or subject to the Control of the State Government, the Chief Inspector-cum-Facilitator may waive the payment of additional fee by a written order for valid reasons.

An application for renewal of license may be refused by the Chief Inspector-cum-Facilitator or Joint Chief Inspector-cum-Facilitator:

  - a) On any of the reasons stated in sub-rule (1) of rule 73;

- b) If the applicant is guilty of repeated contravention of the provisions of this Code or Rules;
  - c) If the applicant has obtained the license by fraud or by misrepresentation;
  - d) If the licensee has violated the conditions of the license:  
 Provided that, in any case falling under clauses (a), (b) or (c) before refusing the renewal of any license, the applicant shall be given an opportunity to show cause as to why the renewal of license shall not be refused.
  - e) If any violation is detected at any time during subsequent inspection or verification of documents of the factory, or comes to the notice of Inspector-cum-Facilitator that auto renewed license (license renewed through online mode based on the self-certification made by the occupier of the registered factory) has been obtained through misrepresentation or suppression of facts or through fraudulent means, such license shall be cancelled by the issuing authority.
- (5) Every license renewed under this Rule shall remain in force up to a maximum period of 5 years from the due date of renewal.
76. Transfer of license.-
- (1) The license granted shall be transferred by the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator
  - (2) The transferee with the permission of the transferer, at any time apply for permission to transfer the license through online mode electronically in the Portal with payment of fee as per Appendix-A.
  - (3) The transfer of license shall take effect only after the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator approves the transfer and make entries of the details of transfer in the appropriate columns in Form-XXX. The license shall then be transferred to the transferee.
  - (4) The transferee shall not take over the factory before getting the approval of the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator.  
 Provided that the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator may call for such other particulars as she/he may require before effecting the transfer:  
 Provided further that if the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator disapproves the transfer he shall record the reasons and communicate the same to the applicant through online mode.
77. Procedure on death or disability of licensee.-  
 If a licensee dies or becomes insolvent, the person carrying on the business of such licensee shall make an application online through the portal electronically for transfer of the license under his own name. Such applications shall also be accompanied with valid documents to prove his or her occupier ship.
78. Payment of fees.-
- (1) Fees payable under these rules shall be remitted in online mode through the portal electronically.
    - i. If an application for the grant, renewal, transfer or amendment of a license is rejected, the fee paid shall be refunded to the applicant by the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator:  
 Provided that if the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator as the case may be is satisfied that a factory has worked even on a single day during the period for which the application for the grant, renewal, transfer or amendment of license is made, the fee remitted therefore shall not be refunded.

- ii. When the amount paid is in excess of the prescribed fee for the grant or renewal of license, the excess amount so paid may be refunded or adjusted towards the fee payable for the license for the subsequent years on request from the Occupier.
  - iii. The fee for transfer of license shall be
    - 1. 25 percent of license fee in case of transfer to legal heirs
    - 2. 100 percent of license fee in case of other transfers
    - 3. In case there is no change in occupiership, only amendment fee shall be applicable as prescribed by the State Government from time to time.
79. Cancellation of License.-  
If an occupier of a Factory has obtained the License of his Factory by fraud or misrepresentation or suppression of any material fact or any other reason, the License so obtained shall be cancelled by the issuing authority with immediate effect after having given the Licensee a reasonable opportunity for being heard why his license should not be cancelled.
80. Suspension of License. -  
Without prejudice to the provision contained in these rules the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator may suspend the license on an application from the occupier, for a factory holding a valid license, in online mode as per Form- XXXI However, the full amount of license fee is payable if the factory has worked even for a single day since expiry of the validity period of the existing license:  
Provided that the licenses suspended under this rule, shall be renewed after revoking the suspension by the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator on an application made by the licensee. Such application shall be submitted at least 15 days before re-opening and shall be accompanied by the full amount of license fee as applicable for grant of license and 25% excess of the fee ordinarily payable.
81. Removal of License. -  
(1) The license of a Factory shall be removed by the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator under the following circumstances, namely,-  
(i) The occupier makes an application in the prescribed form Form-XXXI for the removal of the factory.  
(ii) If a factory is found to be not working during the time of inspection by an Inspector-cum-Facilitator, and the period of license has expired at the time of inspection is so convinced that the factory is not likely to be restarted, after confirming the same by issuing Notice of intention to remove the license, the Inspector-cum-Facilitator shall make recommendations to the Chief Inspector-cum-Facilitator or the Joint Chief Inspector-cum-Facilitator to permanently remove the License of the said factory.
82. Liability of owner of premises.-  
(1) Where in any premises separate buildings are leased to different occupiers for use as separate factories the owner of the premises shall be responsible for the provision and maintenance of common facilities and services, such as approach roads, drainage, water supply, lighting and sanitation.  
(2) The Chief Inspector-cum-Facilitator shall have, subject to the control of the State Government, have the powers to issue orders to the owner of the premises in respect of the factories as mentioned in the provisions of sub rule (1).  
(3) 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 also be liable if

- he/she were the occupier or employer of a factory, for any contravention of the provisions of this code in respect of -
- (a) latrines, urinals and washing facilities in so far as the maintenance of the common supply of water for these purposes is concerned;
  - (b) fencing of machinery and plant belonging to the owner and not specifically entrusted to the custody of user or an occupier;
  - (c) safe means of access to the floors or flats and maintenance and cleanliness of stair cases and common passages;
  - (d) precautions in case of fire;
  - (e) maintenance of hoists and lifts; and
  - (f) maintenance of any other common facilities like creche, provided in the premises.
- (4) The Chief Inspector-cum-Facilitator shall have, subject to the control of the State Government, have the power to issue orders to the owner of the premises in respect of carrying out the provisions of sub-rule (3).
- (5) The provisions of sub-rule (3) relating to the liability of the owner shall apply where in any premises independent rooms with common latrines, urinals and washing facilities which are released to different occupiers for use as separate factories:  
 Provided that the owner shall also be responsible for complying with the requirements relating to the provision and maintenance of latrines, urinals and washing facilities.
- (6) The Chief Inspector-cum-Facilitator shall have, subject to the control of the State Government, have the power to issue orders to the owner of the premises referred to in sub-section (5) in respect of carrying out the provisions of Section 46 or Section 48.
- (7) Where in any premises portions of a room or a shed are leased to different occupiers for use as separate factories, the owner of the premises shall also be liable for any contravention of the provisions:  
 Provided that the occupier shall be responsible for complying with all the safety related provisions of the Code:  
 Provided further that the owner of every factory shall jointly and severally be responsible for making financial and other provisions and for taking such other steps as may be necessary for compliance with the provisions of this Code and the rules, regulations, by-laws and orders made there under, relating to factory.
- (8) In the event of any contravention by any person who so ever of any of the provisions of this Code or of the rules, regulations, by-laws or orders made there under, relating to factory, except those which specifically require any person to do any act or thing or prohibit any person from doing an act or thing, besides the person who contravenes, then, each of the following persons shall also be deemed to be guilty of such contravention unless she proves that he had used due diligence to secure compliance with the provisions and had taken reasonable means to prevent such contravention, namely :—
- (a) The official or officials appointed to perform duties of supervision in respect of the provisions contravened;
  - (b) The employer of the factory;
  - (c) The owner of the factory;
  - (d) The person appointed, if any, to carry out the responsibility under section 24.
- (9) It shall not be a defense in any proceedings brought against the owner of a factory under this section that the employer and other officials have been appointed in accordance with the provisions of the Code or that a person to carry the responsibility under section 24 has been appointed.

83. Power to apply the Code to certain premises –
- (1) The State Government may, by notification in the Official Gazette, declare that all or any of the provisions of this Code shall apply to any place where in a manufacturing process is carried on with or without the aid of power or is so ordinarily carried on, notwithstanding that—
- a. the number of persons employed there in is less than twenty, if working with the aid of power and less than forty if working without the aid of power, or
  - b. the persons working there in are not employed by the owner thereof but are working with the permission of, or under agreement with, such owner:
- Provided that the manufacturing process is not being carried on by the owner only with the aid of his family. After a place is so declared, it shall be deemed to be a factory for the purposes of this Code, and the owner shall be deemed to be the occupier, and any person working therein, a worker.
84. Dangerous manufacturing process or operations. -  
The manufacturing process or operations in the foregoing schedules given in part A and part B of this rule, when carried on in any factory are declared to be dangerous manufacturing process or operation under section 82 of the Code.
85. Compulsory disclosure of information by the occupier. -
- (1) The occupier of every factory carrying on a 'hazardous process' shall arrange to obtain or develop information as Material Safety Data Sheet (MSDS) in respect of every hazardous substance or material handled in the manufacture, transportation and storage in the factory. It shall be accessible upon request to a worker for reference.
- (2) Every such Material Safety Data Sheet shall include the following information:-
- i. The identity used on the label;
  - ii. Hazardous ingredients of the substance;
  - iii. Physical and chemical characteristics of the hazardous substance;
  - iv. The physical hazards of the hazardous substance, including the potential for fire, explosion and reactivity;
  - v. The health hazards of the hazardous substance, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the substance;
  - vi. The primary route(s) of entry;
  - vii. The permissible limits of exposure prescribed in the schedule under Section 88 of the Code, and in respect of a chemical not covered by the said schedule, any exposure limit used or recommended by the manufacturer, importer or occupier;
  - viii. Any generally applicable precautions for safe handling and use of the hazardous substance, which are known, including appropriate hygienic practices, protective measures during repairs and maintenance of contaminated equipment, procedures for clean-up of spills and leaks;
  - ix. Any generally applicable control measures, such as appropriate engineering controls, work practices, or use of personal protective equipment;
  - x. Emergency and first aid procedures;
  - xi. The date of preparation of the Material Safety Data Sheet, or the last change to it; and
  - xii. The name, address and telephone number of the manufacturer, importer, occupier or other responsible party preparing or distributing the Material Safety Data Sheet, who can provide additional information on the hazardous substance and appropriate emergency procedures, if necessary.

- (3) 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/she becomes newly aware of any significant information regarding the hazards 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.
- (4) An example of such Material Safety Data Sheet is given in the Schedule to this Rule.
- (5) Labeling.- Every container of a hazardous substance shall be clearly labeled or marked to identify:
- the contents of the container;
  - the name and address of the manufacturer or importer of the hazardous substances;
  - the physical and health hazards; and
  - the recommended personal protective equipment needed to work safely with the hazardous substance:

### MATERIAL SAFETY DATA SHEET

SAMPLE MODEL		
Section I- Material Identification and Use		
Material Name/Identifier		
Manufacturer's Name		Supplier's Name
Street Address		Street Address
City	State	City
Postal Code	Emergency Telephone No	Postal Code
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	L.D.50 (Specify Species & Route)	L.C. 50 (Specify Species & Route)

Section III- Physical Data for Material				
Physical State Gas— Liquid—Solid				
		Odour and Appearance	Odour Threshold (p.p.m.)	Specific Gravity
Vapour Pressure (mm)	Vapour density (Air-1)	Evaporation Rate	Boiling Point (°C)	Freezing Point (°C)
Solubility in water (20°C)	PH	Density (g/ml.)	Co efficient of Water/oil distribution	

Section IV- Fire and Explosion Hazard of Material			
Flammability- Yes/No			If yes, under what condition
Means of Extinction			
Special Procedures			
Flash Point (°C) and Method	Upper Explosion Limit (% by volume)	Lower Explosion Limit (% by volume)	And
Auto-ignition Temperature (°C)	TDG Flammability classification	Hazardous Combustion Products	
Explosion Data-Sensitivity Chemical Impact		Sensitivity to Static Discharge	

Section V- Reactive Data		
Chemical Stability Yes/No	If no, under what conditions	
In compatibility to other Substances Yes/No	If yes, which ones	
Reactivity and under what condition Hazardous Decomposition products Material Name/Identifier		

Section VI- Toxicological Properties of Material			
Route of Entry			
	-Skin Contact –Skin- Inhalation Acute	Skin Absorption –Inhalation Chronic	Eye contact Ingestion
Effects of Acute Exposure of Material Effects of Chronic Exposure to Material			
Material		Exposure Limit(s)	Irritancy of material
Sensitization to Materials	Carcinogenicity, Reproductive Effects, Teratogenicity, Mutagenicity		
Synergistic Materials			

Section VII- Preventive Measures			
Personal protective Equipment			
Gloves (Specify)	Respiratory (Specify)	Eye (Specify)	
Footwear (Specify)	Clothing (Specify)	Other (Specify)	
Engineering Controls(e.g. ventilation, enclosed processetc.) 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			
Source 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. LD50-Lethal Doze	50% (LD50-Specify Species and route)	
3. LG-50-Lethal Concentration	50% (LC 50-Specify Species and route)	
4. TDG Flammability	Transport of Dangerous Goods Flammability Classification by United Nations	

1. Disclosure of information to workers.
  - (1) The occupier of a factory carrying on a 'hazardous process' shall supply to all workers the following information in relation to handling of hazardous material or substances in the manufacture, transportation, storage and other processes, namely, -
    - i. Requirements of sections 84, 85 and 89 of the Code;
    - ii. A list of 'hazardous process' carried on in the factory;

- iii. Location and availability of all Material Safety Data Sheets as per Rule
  - iv. Physical and health hazards arising from the exposure to or handling of substances;
  - v. Measures taken by the occupier to ensure safety and control of physical and health hazards;
  - vi. Measures to be taken by the workers to ensure safe handling, storage and transportation of hazardous substances;
  - vii. Personal Protective Equipment required to be used by workers employed in 'hazardous process' or 'dangerous operations';
  - viii. Meaning of various labels and markings used on the containers of hazardous substances as provided under Rule;
  - ix. Signs and symptoms likely to be manifested on exposure to hazardous substances and to whom to report;
  - x. Measures to be taken by the workers in case of any spillage or leakage of a hazardous substance;
  - xi. Role of workers vis-à-vis the emergency plan of the factory, in particular the evacuation procedures;
  - xii. Any other information considered necessary by the occupier to ensure safety and health of workers.
2. The information required by sub-rule(1) shall be complied and made known to workers individually through supply of booklets or leaflets and display of cautionary notices at the workplaces.
  3. The booklets, leaflets and the cautionary notices displayed in the factory shall be in the language understood by the majority of the workers, and also explain to them.
  4. The Chief Inspector may direct the occupier to supply further information to the workers as deemed necessary.
86. Disclosure of information to the Chief Inspector- cum- Facilitator.-
- (1) The occupier of every factory carrying on 'hazardous process' shall furnish in writing to the Inspector-cum-Facilitator and the Chief Inspector -cum- Facilitator a copy of all the information furnished to the workers.
  - (2) A copy of compilation of Material Safety Data Sheets in respect of hazardous substances used, produced or stored in the factory shall be furnished to the Chief Inspector-cum-Facilitator and the local Inspector-cum- Facilitator.
  - (3) The occupier shall also furnish any other information asked for by the Chief Inspector -cum- Facilitator or the Inspector -cum- Facilitator from time to time for the purpose of this Code and the Rules made there under.
87. Health and Safety Policy.-
- (1) The occupier of every factory, except as provided for in sub-rule (2), shall prepare a written statement of his policy in respect of health and safety of workers at work.
  - (2) All factories employing less than 50 workers, provided that they are not covered under the First Schedule under section 2 (za) or carrying on processes or operations declared to be dangerous under section 82 of the Code.
  - (3) Notwithstanding anything contained in sub-rule (2), the Chief Inspector-cum-Facilitator may require the occupiers of any of the factories class or description of factories to comply with the requirements of sub-rule (1), if, in his opinion, it is expedient to do so.
  - (4) The Health and Safety Policy should contain or deal with:
    - a) declared intention and commitment of the top management to health, safety and environment and compliance with all the relevant statutory requirements;

- b) organizational setup to carry out the declared policy clearly as signing the responsibility at different levels; and
- c) arrangements for making the policy effective.
- (5) Inparticular, the Policy should specify the following:
  - a) arrangements for involving the workers;
  - b) intention of taking into account the health and safety performance of individuals at different levels while considering their career advancement;
  - c) fixing the responsibility of the contractors, sub-contractors, transporters and other agencies entering the premises;
  - d) providing are some of health and safety performance of the factory in its Annual Report;
  - e) relevant techniques and methods, such as safety audits and risk assessment for periodical assessment of the status on health, safety and environment and taking all the remedial measures;
  - f) stating its intentions to integrate health and safety, in all decisions including those dealing with purchase of plant, equipment, machinery and material as well as selection and placement of personnel;
  - g) arrangements for informing, educating and training and re-training its own employees at different levels and the public, wherever required.
- (6) A copy of the declared Health and Safety Policy signed by the occupier shall be made available to the Inspector-cum- Facilitator having jurisdiction over the factory and to the Chief Inspector-cum-Facilitator.
- (7) The policy shall be made widely known by: -
  - (a) making copies available to all workers including contract workers, apprentices, transport workers, suppliers, etc.
  - (b) displaying copies of the policy at conspicuous places; and
  - (c) any other means of communication; in a language understood by majority of workers..
  - (8) The occupier shall revise the Health and Safety Policy as often as may be appropriate, but it shall necessarily be revised under the following circumstances: -
    - (a) whenever any expansion or modification having implications on safety and health of persons at work is made; or
    - (b) whenever new substance (s) or articles are introduced in the manufacturing process having implications on health and safety of persons exposed to such substance.

88. Information on Industrial wastes.-

- (1) The information furnished under section 84(3) of the Code 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 waste, and arrangements for their final disposal.
- (2) 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, electrostatic precipitators, or similar arrangements made for controlling pollution of the environment.
- (3) Every occupier shall, with the approval of the Chief Inspector-cum-Facilitator, draw up an on-site emergency plan and detailed disaster control measures for his factory as per prescribed and make known to the workers employed therein and to the general public living in the vicinity of the factory the safety measures required to be taken in the event of an accident taking place.

- (4) The occupier of every factory involving a hazardous process shall furnish in writing to the Inspector-cum-Facilitator and Chief Inspector-cum-Facilitator a copy of all information furnished to the workers. 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-cum-Facilitator and Inspector-cum-Facilitator.
  - (5) The measures for safe handling, usage, transportation, and storage of Hazardous Substances inside the factory premises and its disposal shall be prepared by the Occupier with the previous approval of Chief Inspector-cum-Facilitator. It shall be displayed inside the factory premises and at the entrance of the factory for the awareness of workers as well as the general public.
89. Review of the information furnished to workers etc.
- (1) The occupier shall review in every calendar year and modify if necessary, the information furnished under rules to the workers, and to the Chief Inspector-cum-Facilitator.
  - (2) In the event of any change in the process or operations or methods of work or when any new substance is introduced in the process or in the event of a serious accident taking place, the information so furnished shall be reviewed and modified to the extent necessary.
90. Confidentiality of information. -
- (1) 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 to-
    - a) His workers;
    - b) Inspector-cum-Facilitator of Factories and
    - c) Chief Inspector-cum-Facilitator. As required under.
  - (2) If the occupier is of the opinion that the disclosure of details regarding the process and formulations will adversely affect his business interest, he/she 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.
  - (3) 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 State Government shall be final.
91. Medical Examination under of section 85.-
- (1) Workers employed in a 'hazardous process' shall be medically examined by a qualified medical practitioner hereinafter referred to as Factory Medical Officer, in the following manner, namely, -
    - a) Once before employment, to ascertain the physical fitness of the person to do the particular job;
    - b) Once in a period of six 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 worker;
    - c) The details of pre-employment and periodical medical examinations carried out as aforesaid shall be recorded in the Health Register in Form -V.
  - (2) No person shall be employed in a hazardous process for the first time without a Certificate of Fitness in Form-VI 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-cum-Facilitator who shall refer the matter to the Medical Officer whose opinion shall be final in this regard. If the Inspector-cum-Facilitator is also a Medical Officer, 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 Medical Officer who shall, in turn, examine the concerned worker and communicate his findings to the occupier within 30 days. If the Medical Officer 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/she is, in the opinion of the Medical Officer, fully incapacitated, in which case the worker affected shall be suitably rehabilitated.
  - (4) A Medical Officer on his own motion or on a reference from an Inspector may conduct a 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 Medical Officer in such a case shall be final. The fee required for this medical examination shall be as prescribed, and it shall be paid by the Occupier through online mode.
  - (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 Medical Officer 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 or the State Government shall not refuse to undergo such medical examination.

92. Occupational Health Centres.-

- (1) 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 hereunder, namely,-
  - a) For factories employing up to 50 workers-
    - i. the services of a Factory Medical Officer on retainer-ship basis, in his clinic to be notified by the occupier. He will carry out the pre-employment and periodical medical examination as stipulated in rules and render medical assistance during emergency;
    - ii. a minimum of 5 persons trained in first-aid procedures amongst whom at least one shall always be available during the working period;
    - iii. a fully equipped first-aid box.
  - b) For factories employing 51 to 200 workers-
    - i. 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;
    - ii. a part-time Factory Medical Officer shall be in overall charge of the Centre who shall visit the factory at least twice a week and whose services shall be readily available during medical emergencies;
    - iii. One qualified and trained Pharmacist on duty throughout the working period;
    - iii. a fully equipped first aid box in all the departments.
  - c) For factories employing above 200 workers-
    - (i) one full-time Factory Medical Officer for factories employing up to 500 workers and one more Medical Officer for every additional 1000 workers or part thereof;

- (ii) an Occupational Health Centre having at least 2 rooms each with a minimum floor area of 15 sq. meters with floors and walls made of smooth and impervious surface and adequate illumination and ventilation as well as equipment as per the schedule annexed to this Rule;
  - (iii) there shall be one nurse, Pharmacist, and one sweeper-cum-ward boy throughout the working period;
  - (iv) the Occupational Health Centre shall be suitably equipped to manage medical emergencies.
- (2) The Factory Medical Officer required to be appointed under sub-rule (1) shall have qualifications included in Schedules to the Indian Medical Degree 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 recognized 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/she 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 organizations conducting the Course shall be approved by the Director General of Factory Advice Service and Labour Institutes or the State Government in accordance with the guidelines issued by the Director General of Factory Advice Service and Labour Institutes.
- (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. Qualification;
  - iii. Experience, if any; and
  - iv. The rules under which appointed.
- (5) The following equipment shall be provided for the occupational health centre in factories-(a)
- i. A glazed sink with hot and cold water always available.
  - ii. A table with a smooth top at least 180cm X 105cm.
  - iii. Means for sterilizing instruments.
  - iv. A couch.
  - v. Two buckets or containers with close-fitting lids.
  - vi. A kettle and spirit stove or other suitable means of boiling water.
  - vii. One bottle of spirits ammoniac aromaticus (120ml).
  - viii. Two medium-size sponges.
  - ix. Two 'kidney' trays.
  - x. Four cakes of toilet, preferably antiseptic soap.
  - xi. Two glass tumblers and two wine glasses.
  - xii. Two clinical thermometers.
  - xiii. Two tea spoons.

- xiv. Two graduated(120ml) measuring glasses.
  - xv. One wash bottle(1000cc) for washing eyes.
  - xvi. One bottle(one litre)carbolic lotion 1 in 20.
  - xvii. Three chairs.
  - xviii. One screen.
  - xix. One electric hand torch.
  - xx. An adequate supply of tetanus toxide.
  - xxi. Coramine liquid (60ml).
  - xxii. Tablets-antihistaminic, antispasmodic.(25each).
  - xxiii. Syringes with needles-2cc, 5cc and 10cc.
  - xxiv. Two needle holders, big and small.
  - xxv. Suturing needles and materials.
  - xxvi. One dissecting forceps.
  - xxvii. One dressing forceps.
  - xxviii. One scalpel.
  - xxix. One stethoscope.
  - xxx. Rubber bandage-pressure bandage.
  - xxxi. Oxygen cylinder with necessary attachments.
  - xxxii. One Blood Pressure apparatus.
  - xxxiii. One Patellar Hammer.
  - xxxiv. One peak-flow meter for lung function measurement.
  - xxxv. One stomach wash set.
  - xxxvi. Any other equipment recommended by the Factory Medical Officer according to specific need relating to manufacturing process.
- (b) In addition-
- (A) For factories employing 51 to 200 workers-
    - (i) Four plain wooden splints 900mm X 100mm X 6mm.
    - (ii) Four plain wooden splints 350mm X 75mm X 6mm.
    - (iii) Two plain wooden splints 250mm X 50mm X 12mm.
    - (iv) One pair artery forceps
    - (v) Injections - morphine, pethidine, atropine, adrenaline, coramine, novocan (2 each)
    - (vi) One surgical scissors.
  - (B) For factories employing above 200 workers-
    - (i) Eight plain wooden splints 900mm X 100mm X 6mm.
    - (ii) Eight plain wooden splints 350mm X 75mm X 6mm.
    - (iii) Four plain wooden splints 250mm X 50mm X 12mm.
    - (iv) Two pairs artery forceps.
    - (v) Injections - morphine, pethidine, stropine, adrenaline, cerramine, novocan (4 each).
    - (vi) Two surgical scissors.

93. 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 (2) 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 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.

- (2) 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; Bedpan; Urinal; Glass
- (b) *Safety Equipment*  
Flares with life of 30 minutes; - Floodlights; Flashlights; - Fire extinguisher dry powder type; Insulated gauntlets
- (c) *Emergency Care Equipment*
- i. *Resuscitation*;  
Portable suction unit; Portable oxygen units; Bag-valve-mask, hand-operated artificial ventilation unit; Airways; Mouth gags; Tracheotomy adaptors; Short spine board I.V. Fluids with administration unit; B.P. Manometer; Stethoscope.
  - ii. *Immobilization*  
Long and short padded boards; Wire ladder splints; Triangular bandage; - Long and short spine boards.
  - iii. *Dressings*  
Gauze pads-100mm X 100mm; - Universal dressing 250mm X 900mm Roll of aluminum foils; Soft roller bandages 150mm X 900mm Adhesive tape in 75mm roll; Safety pins; Bandage sheets; Burn Sheet.
  - iv. *Poisoning*  
Syrup of Ipecae; Activated Charcoal Pre-packeted in doses; Snake bite kit; Drinking water.
  - v. Emergency medicines as per requirements (under the advice of Medical Officer only.)

94. Decontamination facilities.-

In every factory, 'carrying out hazardous process', the following provisions shall be made to meet emergency:-

- a) fully equipped first aid box;
- b) 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

No. of persons employed at any time	No. of drenching showers
(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

- (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.

95. Making available Health Records to workers.-

- (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: -

- a) Once in every six months or immediately after the medical examination whichever is earlier;
  - b) If the Factory Medical Officer or the Medical Officer as the case may be, is of the opinion that the worker has manifest signs and symptoms of any notifiable disease as specified in the Third Schedule of the Code;
  - c) If the worker leaves the employment;
  - d) If any one of the following authorities so direct-
    - i) the Chief Inspector-cum-Facilitator of Factories;
    - ii) the Health Authority of the Central or State Government; Commissioner of Workmen's Compensation;
    - iii) the Director General, Employee's State Insurance Corporation;
    - iv) the Director, Employees State Insurance Corporation (Medical Benefits); and
    - v) the Director General of Occupational Safety and Health (DGOSH).
- (2) A copy of the up-to-date health records including the record of worker's exposure to hazardous process or, as the case may be, the medical records shall be supplied to the worker on receipt of an application from him. X-ray and other medical diagnostic reports may also be made available for reference to his medical practitioner.
96. Qualifications of Supervisors.-
- (1) All persons who are required to supervise the handling of hazardous substances shall possess the following qualifications and experience:
- a) A degree in Chemistry or Diploma in Chemical Engineering or Technology with 5 years experience; or
  - b) A Master's Degree in Chemistry or a Degree in Chemical Engineering or Technology with 2 years experience.  
The experience stipulated above shall be in process operation and maintenance in the Chemical Industry.
  - c) The Chief Inspector-cum-Facilitator shall require the supervisor to undergo training in Health and Safety.
- (2) The syllabus and duration of the above training and the organizations conducting the training shall be approved by the Director General Occupational Safety Health or the State Government in accordance with the guidelines issued by the Director General Occupational Safety Health.
- (3) For the purpose of compliance with the requirements of sub-section (1), (4), and (7) of Section 84 or 85 of the Code, the Chief Inspector-cum-Facilitator may, if deemed necessary, issue guidelines from time to time to the occupiers of factories carrying on 'hazardous process'. Such guidelines may be based on National Standards, Codes of Practice, or recommendations of International Bodies such as International Labour Organisation and World Health Organisation.
97. Permissible Levels of exposure of Chemical Substances.-  
Permissible levels of exposure of Chemical Substances in manufacturing process in a factory shall be as per the Appendix-C .
98. Appeal. -
- (1) An appeal under section 90 of the Code shall be preferred to the Chief Inspector-cum-Facilitator, or in cases where the order appealed against is an order passed by that officer, to the State Government or to such authority as the State Government may appoint in this behalf and shall be in the form of a memorandum setting forth concisely the grounds of objection to the order along with prescribed fee notified by the State Government from time to time.

99. Persons who hold position of supervision or management or are engaged in confidential position in a factory under sub-section (1) of section 91 of the Code. -
- (1) The following persons shall be deemed to hold positions of supervision or management, namely:-
    - i. Managing Director, President, CEO, Vice President or General Employer
    - ii. Employers
    - iii. Departmental Heads and Assistants
    - iv. Engineer
    - v. Supervisor or Foremen
    - vi. Labour or welfare Officers
    - vii. Security Officers
    - viii. Safety Officers
  - (2) Persons defined to hold confidential position.
    - i. Timekeepers employed in a confidential position in a factory
    - ii. Confidential Assistants/Personal Secretary of Employers or Managing Directors of factories;
    - iii. Staff maintaining personal files/Service Registers
  - (3) Any other person, so declared as holding positions of supervision or management or holding a confidential position in the Factory in writing, by Chief Inspector-cum-Facilitator;
  - (4) A list showing the names and designations of all persons to whom the provisions of sub-section (1) of section 91 of the Code have been applied, shall be maintained in every factory.

#### CHAPTER - XIII PLANTATIONWORKERS

100. Housing Accommodation for Workers.-  
Every employer shall provide to every worker and his family residing in a plantation, housing accommodation as near as possible to the place of work.
101. Standards and Specifications of Housing Accommodation. -  
All housing accommodation for workers in a plantation shall conform to such standards and specification as may be approved by the State Government on the recommendation of the Advisory Board constituted under section 17 of the Code provided that existing building substantially conforming to the later specifications may be accepted.
102. Sites for Housing Accommodation.-
- (1) The housing accommodation shall be provided on dry well-drained land which, taking into consideration of 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
  - (2) Adequate electric lighting shall be provided by employer in the houses provided for the workers and also in and around the area in which housing accommodation is provided.
  - (3) The employer shall maintain in good condition approach roads and paths to the area where houses are located as also where sewers and drains in that area.
  - (4) The employer shall not deny to public free access to those parts of the plantation where the workers are housed.
  - (5) The employer shall cause the vicinity of all houses to be kept clear of refuse and excreta and their latrine and drains to be cleaned out daily and all refuse in or near them to be collected, removed and disposal of hygienically.

## 103. Housing Scheme.-

Within six months after standards and specifications are approved by the Government, every employer shall submit to the Chief Inspector cum Facilitator of plantations for approval a scheme in regard to the provision by him of housing accommodation for worker. The scheme shall provide for the following matters; namely. -

- (1) Specification of the period during which housing accommodation is proposed to be provided in respect of all resident workers in plantations, such period being not later than the period as may be specified by the Advisory Board under rule 101.
- (2) The type design which is proposed to be adopted for the construction of houses, such design being in conformity with the standards and specifications as may be approved by the State Government under rule 101 and 102.
- (3) Plan and site plan, in duplicate of the building to be constructed or remodeled for use as workers' houses.

## 104. Construction of houses in accordance with scheme and report in relation there to.-

All houses shall be built in accordance with the scheme as approved in writing by the Chief Inspector of Plantations. With a view to showing the progress made in providing houses according to the approved scheme, every employer shall submit to the Chief Inspector of plantations a report in Form -XXXII on the 31st January every year.

## 105. Maintenance of houses.-

- (1) The employer shall at his own expenses, 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.
- (2) 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 makes it dangerous to the health and safety of the worker. Where an inspector cum facilitator so brings any such defects to notice, it shall be the duty of the employer to rectify them with the least possible delay.
- (3) The employer shall get all the houses, doors, windows, and other wooden structures painted or varnished once in three years. The dates on which painting or varnish was last carried out shall be painted or stenciled at a convenient spot on each building.

## 106. Accommodation to be rent-free.-

No rent shall be charged by an employer for the housing accommodation provided to workers and their families residing in his plantation.

## 107. 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 the case of termination of services of a workers 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 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 houses shall not make any unauthorized additions to or alterations in the house.
- (4) The occupant 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 house 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 window or air space 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 language which the latter can understand.

108. Occupation of accommodation after termination or employment.-

- (1) When a worker dies in the service of the employer or retires or goes on transfer, or resign or goes on leave or when his services are terminated, he or his family, as the case may be, may retain the house upto the periods as detailed below:
  - (i) In the case of death - a period not exceeding three months, and in the case of transfer or termination of service, a period not exceeding two months:
  - (ii) in the case of retirement or resignation- a period not exceeding one month:
  - (iii) in the case of leave for the period of leave: and
  - (iv) in the case where the discharge or dismissal or a worker result in an industrial dispute for so long as the case is not finally disposed of.
- (2) If the competent authority is satisfied that a worker or any member of his family refuses to vacate the house allotted to such worker after the expiry of the period specified in sub-rule (1), he may, notwithstanding any other law for the time-being in force, by notice served.
  - (i) by post or
  - (ii) by affixing a copy of it on the outer door or some other conspicuous part of such house, or
  - (iii) in such other manner as may be prescribed, required that such worker or a member of his family or any other person who may be in occupation of the whole or any part of the house to vacate it within one month of the date of service of such notice.
- (3) In the event the failure of the worker or any other person who is in occupation of the house to comply with the notice under sub-rule (2), the competent authority may make written requisition to the officer not below the rank of a revenue division officer having jurisdiction over the area to evict such worker, member or other person from the house.
- (4) On receipt of requisition under sub-rule (3), the officer specified in sub-rule (3) shall by order evict such worker, member or other person from and take possession of the house and shall for that purpose, use such force as may be necessary:

Provided that before taking such possession a copy of the order of eviction shall be served on the worker or a member of the family or any other person in occupation of the said house.

*Explanation:-* For the purpose of this rule "competent authority" means such person or authority as maybe notified by the State Government in this behalf.

109. Facilities for Harvesting standing Crops of Termination of Employment.-

- (1) In the case of termination of his employment, a worker shall, where possible, be given reasonable facilities to harvest the standing crops in his garden plot.
- (2) In the case of any employer wanting to take over for the estate use any plot of land that is being cultivated by the workers, the workers shall be given reasonable facilities to harvest the standing crops in their garden plots or be paid reasonable compensation in lieu thereof.

## 110. Drinking Water.-

- (1) An adequate supply of wholesome drinking water shall be made available in every plantation at places convenient to the workers.
- (2) The water provided for drinking shall be supplied from any convenient source approved by the Chief Inspector cum Facilitator.
- (3) If drinking water is not supplied from taps connected with the public water supply system, it shall be kept in suitable vessels and refilled at least daily. All practicable steps shall be taken to preserve the water and vessels from contamination and to keep the vessels scrupulously clean.

## 111. Cleanliness of well or Reservoir.-

- (1) Drinking water shall not be supplied from any open well or reservoir unless it is so constructed, situated, protected and maintained as to be free from the possibility by chemical or bacterial or extraneous impurities.
- (2) 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 his requirement shall not apply to any such well or reservoir if the water there infiltrated and treated before it is supplied for consumption.

## 112. Report from the Health Officer.-

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 Health Officer or the Certifying Surgeon, if the former is not available, as to the fitness for human consumption of the water supplied to worker, and in every case to submit to the inspector cum facilitator a copy of such report as soon as it is received from the Health Officer.

## 113. Latrine Accommodation.-

- (1) (a) 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.  
(b) The latrines shall be conveniently situated and shall have exclusive access for either sex.
- (2) Latrine to conform to public Health requirements. - The latrines 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.
- (3) Every Latrines shall be under cover and so partitions off as to secure privacy and shall have proper door and fastenings.
- (4) Where workers of both sexes are employed, there shall be displayed outside each latrine or latrine block, a notice in the language understood by the majority or workers "For Men only" or "For Women only" as the case may be. The notice shall also bear the figure of a man or woman, as the case may be.
- (5) Where piped water supply is available, sufficient number of water taps, conveniently accessible shall be provided in or near such latrine accommodation. If piped water supply is not available, sufficient quantity of water shall be kept stored in suitable receptacles near the latrines.

## 114. 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 not such drainage line, the effluent shall be deodorized and rendered innocuous and then disposed of in a suitable manner to the satisfaction of the Health Officer.

## MEDICAL FACILITIES

### 115. Types of Hospitals.-

There shall be two types of hospitals in plantations, namely, garden Hospitals and group Hospitals.

- (i) Garden Hospital will deal with out-patients, in-patients not requiring any elaborate diagnosis and treatment, infectious cases, midwifery, simple pre-natal and post-natal care, care of infants and children and periodical inspection of workers.
- (ii) Group Hospitals shall be capable of dealing efficiently with all types of cases normally encountered but shall not be used for routine treatment. Admission to the Group Hospital shall only be on the recommendation of the Garden Hospital Doctors except in the case of emergency.

Provided that Group Hospitals may serve as Garden Hospitals for the plantations in which they are situated if they are no separate Garden Hospitals in these plantations.

### 116. Garden Hospital.-

- (1) Subject to the provisions of sub-rules (2) and (3) every employer shall, either
  - (a) Provide a Garden Hospital in his plantation according to the standards laid down in these rules; or
  - (b) Have a lien on beds in such Hospitals in a neighboring plantation or other hospital to the scale of 15 beds per 1,000 workers as may be approved by the Chief Inspector cum facilitator:

Provided that in the case of lien on hospital beds outside the plantation, a plantation or group of plantations shall provide a dispensary with upto five detention bed under the immediate care and supervision of a qualified medical practitioner assisted by at least a full-time trained nurse and such other staff as the Chief Inspector cum facilitator, may consider necessary with corresponding reduction in the number of beds on which the plantations or group of plantations shall have alien.

- (2) A Plantation employing one thousand or more workers shall run its own garden Hospital while plantations employing less than, one thousand workers which are situated within reasonable distances from one another may, with the approval of the Chief Inspector cum facilitator, combine and provide joint hospitals and share their expenses, For this purpose, the plantations concerned shall submit to the Chief Inspector cum facilitator, particulars of scale of staff proposed to be employed, the equipments proposed to be provided, the location of joint hospital, areas of plantations served, the distances of plantations from one another, the number of workers employed and all other relevant information:

Provided that in the case of combined hospitals plantations employing more than two hundred but less than 1,000 workers shall, run their own dispensary referred to in sub-rule(1).

- (3) In plantations where the number of workers employed is less than two hundred, a first aid box or a cupboard equipped with such contents as may be prescribed by the Chief Inspector cum facilitator shall be provided under the supervision and care of a person trained in First-aid treatment, whose service shall be readily available during all hours. The employer shall also provide free medical aid to the workers and their families by arrangement with the nearest available hospitals/dispensaries similar to the facilities available to the other plantations workers.

- (4) Notwithstanding anything contained in sub-rules (1) to (3) plantations, employing two hundred or fewer workers so situated as not to be within a distance of 8 k.m. from the reach of a hospital/dispensary shall have, subject to the approval of the Chief Inspector cum facilitator, a dispensary with a minimum of one detention bed if the number of workers employed is between 15 and 100 and one more bed if the number of workers exceed one hundred under the immediate care of a full-time qualified compounder but supervised and visited thrice a week by the nearest Medical Officer.
- (5) Each Garden Hospital shall be under a qualified medical practitioner assisted by a qualified compounder, one trained nurse, trained midwife, and a helper (nursing orderly). If a higher trained nurse is available, additional midwives shall not be necessary. The services of the staff shall be readily available during all hours:

Provided that in the case of doctors, compounders, nurses, and midwives employed in plantations at the commencement of these rules who are not qualified, government may grant exemption from possessing the qualifications prescribed for them on the recommendation of the Chief Inspector cum Facilitator in consultation with the District Medical Officers concerned.

- (6) Additional Medical and auxiliary personnel shall be appointed according to the following scales:-

Qualified medical Practitioners	-	1	For every additional 2000 workers
Compounder	-	1	For every additional 1750 workers
Trained nurse	-	1	For every additional 1750 workers
Trained midwife	-	1	For every additional 1750 workers
Helper(nursing orderly)(male or female)	-	1	For every additional 700 workers

Where more than one medical practitioner are appointed atleast one shall be a lady doctor.

- (7) (a) A minimum of 15 beds shall be provided in every garden hospital per 1000 workers served and each bed shall be allowed at least 6 m<sup>2</sup> of floor space.
- (b) Every hospital shall be of sound permanent construction with impermeable washable walls to a height of at least 1.5 m on the inside with proper water supply and efficient sanitary arrangements.
- (c) Every hospital shall have pure piped water supply and the wards, consulting room, operation theatre, and dispensary shall each have a water point over a suitable glazed sink.
- (d) the following departments shall be provided: -
- (i) General ward for males:
  - (ii) General ward for females:
  - (iii) Separate labour room and family planning Centre:
  - (iv) Infectious ward with separate sanitary arrangements and Oxygen supply:
  - (v) Outpatient department with sufficient waiting space for patients to wait undercover preferably situated in a separate block from general wards:
  - (vi) Minor operation and dressing room;
  - (vii) Dispensary and drugstores;
  - (viii) Consulting rooms so arranged that patients can be examined in privacy:
  - (ix) General Stores: and
  - (x) Kitchen for cooking.
- (e) In every hospital, free transport facilities shall be provided for carrying patients to and from Group Hospitals.

#### 117. Group Hospitals .-

- (1) In order to provide in – patient treatments which are not available in the Garden Hospital the planters should join together through trust or other institutional device and provide joint

- Group Hospital sharing the expenses proportionate to the number of workers or they should make arrangements, with the nearest Group Hospital where such facilities exist.
- (2) Plans for the establishment of Group Hospital containing details as regard their location and size, areas of plantations served, the number of workers employed thereon etc. shall be approved by the State Government.
  - (3) Every Group Hospital shall have a minimum of 100 beds and there shall be at least 3 beds per 700 workers, every bed having 6 m<sup>2</sup> off floor space.  
 Provided that the State Government may fix a lesser number of beds to be provided in a Group Hospital and exempt a group of plantations from providing a Group Hospital if it is satisfied that adequate alternative arrangements exist for the treatment of patients intended to be treated at a Group Hospital:
  - (4) The hospital shall be built according to such specifications as may be approved by the State Government.
  - (5) There shall be provisions for supply of pure piped water, electricity, the modern methods of sanitation and water flushed closets. Each ward, labour room, surgical dressing room, consulting room and dispensary shall have a water point over a suitable glazed sink:  
 Provided that with the approval of the State Government or an officer authorized by them, suitable alternative arrangements which are no less beneficial than that have been envisaged may be made in regard to supply of pure water, electricity and modern methods of sanitation.
  - (6) Each hospital shall have provision for – Operation theatre, X-ray, CT Scan, MRI Scan and all other modern diagnostic equipments, Physiotherapy, Labour rooms, Facility for treatment for V.D., T.B. and Dental disease, consulting and examination room, Clinical laboratory of satisfactory standard, Office room and Stores for linen as well as medicine, Lavatory and bath rooms, and Kitchen (fly proofed). The out-patient block consisting of examination room, office etc., should preferably be at some distance from the wards. Separate wards shall be provided for males, females, maternity cases, and small isolated wards for infectious diseases:  
 Provided that X-ray, CT Scan, MRI Scan, Physiotherapy blocks may not be provided if satisfactory arrangements are made by employers to provide these facilities with some hospital approved by the Chief Inspector.
  - (7) The facility mentioned in sub rule (6) is not available in the Group Hospital the employer shall reimburse the actual cost of the facility incurred to the worker for availing such facility in any other hospital.
  - (8) Every Group Hospital shall have such medical and other staff as may be specified by the State Government from time to time. All medical officers in a Group Hospital shall be qualified medical practitioners.
  - (9) A properly equipped ambulance shall be maintained in every Group Hospital for the use of seriously ill patients free of charge. Where, however, the maintenance of an ambulance is too costly for a Group Hospital, such Group Hospital shall make free suitable transport arrangements for the transport of seriously ill patients.

#### 118. Equipments and Drugs.-

- (1) Every Dispensary, Garden Hospital, and Group Hospital shall maintain such equipment and drugs as may be specified by the State Government.
- (2) The District Medical Officers concerned or a medical officer not below the rank of an assistant surgeon nominated by the District Medical Officers shall visit the Dispensaries, Garden Hospital, and Group Hospital at least once in a year to see whether they are sufficiently equipped and stocked with drugs and send a report to the management and Chief Inspector.

## 119. Medical records .-

The Medical Officer in-charge of each dispensary, Garden Hospital or Group hospital shall

- (a) maintain such registers, books, accounts and medical records in respect of every patients as may be prescribed by the State Government; and
- (b) comply with such regulations as may be made by the State Government in respect of medical stores.

## 120. Standard of Medical facilities .-

(a) Out-patient treatment – The out-patient treatment shall include:-

- (i) Detention for observation and treatment
- (ii) Preventive treatment such as vaccination and inoculation;
- (iii) Free provisions of all drugs, including those needed for injections and dressings, and appliances that may be considered necessary;
- (iv) Anti-natal, natal, and post-natal advice;
- (v) Provision of certificates, free of cost, in respect of maternity and sickness benefits claims under the Code.

(b) In-patient treatments: - The hospital treatment shall include maintenance, food and medicine including treatment at confinement:

Provided that the facilities mentioned in these rules shall be free of cost to the workers and their families and shall be paid for by the plantations:

Provided further that the charges for the food supplied may be levied and be paid for by the workers concerned in accordance with the existing Government Orders.

## 121. Failure to provide and maintain medical facilities as required in these rule.-

(1) If any employer does not provide and maintain medical facilities as required in these Rules to the satisfaction of the Inspector cum Facilitator or Chief Inspector cum facilitator, the later shall, at the expense of the defaulting employer, cause to be provided and maintained such facilities in the nearest garden hospital or Dispensary or in the District or other similar hospitals. The defaulting employer shall be liable to pay the cost of such medical facilities including charges, if any, in respect of –

- (a) a medical officer's visit to the plantation for the purpose of attendance on any sick worker or workers;
- (b) the maintenance of sick workers in a hospital or dispensary for each day; and
- (c) transport to and fro provided to the sick workers;

(2) Where medical facilities are not provided by any employer the State Government may also arrange for such medical facilities as they deem necessary and recover such contributions from the employer as the State Government may specify in this behalf.

## 122. Recovery of sum due under Rule 121.-

When any sum of money is due from any employer under Rule 94 the inspector cum facilitator or Chief Inspector cum facilitator shall give him a notice in writing requiring the payment of the amount to the District collector concerned who may recover the same as arrears of land revenue

## 123. Medical advisory board.-

The State Government may by notification in the official gazette constitute a medical advisory board for consultation in matter regarding and connected with the provisions of medical facilities in plantation. The constitution and procedures relating to meeting also may be notified.

124. Canteens .-  
In or near every plantation wherein one hundred and fifty or more workers are ordinarily employed, the employer shall arrange directly otherwise, to provide and maintain canteens with the facilities for sale of tea, coffee, and snacks to the workers.
125. Prices to be charged .-  
(1) tea, coffee and snacks served in every canteen shall be sold on a no profit basis.  
(2) The prices of all items served in the canteen shall be conspicuously displayed in every canteen.
126. Creches.-  
(1) The creche required to be provided and maintained under section 92 of the Code shall be in accordance with the standards laid down in the rule.  
(2) Every creche shall be conveniently accessible to the mothers of the children accommodated therein.  
(3) There shall be not less than 1.5 sq.m. 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 creche building shall be in accordance with the standard plan, or with other plans approved by the Chief Inspector.  
(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 elder children.  
(8) The employer shall appoint:  
(i) A woman to be in charge of each creche. Such woman shall have the training approved by the State Government. There shall be one woman for every thirty children.  
(ii) Such other staff on a scale approved by the State Government.
127. Wash Room.-  
(1) There shall be in or adjoining the creche a suitable washroom for the washing of the children and their clothes.  
(2) There shall be provided a latrine for the use of the children in the creche.
128. Supply of Milk and Refreshment.-  
At least half a pint of clean pure milk, if possible, otherwise powdered milk approved by the certifying Surgeon, shall be made available [free of cost] for each child on every day. It is accommodated in the creche, and the mother of such child shall be allowed in the course of her daily work, two intervals of 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 free of cost.  
Note.- For the purpose of this rule, the wholesome refreshment shall consist of 100 gms. of fruit (Plantain, orange, Papaya or mango) and a porridge having the following ingredients, at the rate shown against each, per child.  
1. Wheat raw or Ragi flour-50gms  
2. Milk -10ml  
3. Groundnuts(roasted)-15gms  
4. Sugar/Jaggery-25gms.  
The Wheat raw or Ragi flour may be cooked in sufficient quantity of water till it become soft and semi solid. The Rawa may be roasted slightly before cooking. Add milk and broken groundnuts(roasted) and boil thick. Sugar or jaggery may be added and removed from fire.

## 129. Supply of clothes, soap and oil.-

- (1) The creche attended of attendants shall be provided (free of cost) with four sets of clean clothes per year for use while on duty in the creche.
- (2) An adequate supply of clean clothes, soap and oil shall be made available [free of cost] for each child while it is in the creche.

## 130. Recreation Facilities.-

Every employer shall provided and maintain-

- (i) A recreation centre or centres for workers with provisions for indoor games suitable for adult and child workers;
- (ii) 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 shall be provided.

Provided that a group of employers may, with the approval of the Chief Inspector, provide and maintain joint recreation centres and playgrounds and share their expenses.

- (iii) Every recreation center to be provided and maintained shall be conveniently situated as near as possible to the worker's quarters.

## 131. Educational Facilities for Workers' Children.-

Every employer shall, if the number of workers' children between the age of six and twelve in his plantation exceeds twenty-five, provide and maintain a primary school or school 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, and within a distance of 3.5 km 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 schools started with less than fifty children may be considered for recognition by the Education department, on the condition that the entire expenses, including the salary of teachers, shall be met by the employers, and financial aid from the education department may be considered on merits under the provisions of the Kerala Education Rules, if and when the number of pupils in the institution exceeds fifty:

Provided further that, subject to the provisions of sub-rule (1) of rule 105, a group of employers may jointly provide and maintain a primary school and share its expenses.

## 132. School.-

- (1) Every school to be provided and maintained under Rule 128 shall be conveniently situated and within a distance of 3.5 km from the quarters of workers.
- (2) No school opened without the previous sanction of the Director of Public Instruction shall be recognized. Provided that in the case of any school maintained in any plantation at the commencement of these rules, the Director of Public Instruction may, subject to such conditions he may specify, grant recognition.
- (3) The school shall be under the administrative control of the State Education Department.
- (4) Every school shall be under the management of one body of persons approved by the Education Department.
- (5) The school shall be conducted in conformity with the conditions of the education Code.
- (6) A school should have a minimum site of 50 cents of land approved by the Education Department and a building of 100'x18' constructed in accordance with the standard plan or plans approved by the Director of Public Instruction. Provided that where there is no standard

- plan or where it is proposed to deviate from a standard plan, the Director of Public Instruction's approval of the plan of the school building shall be obtained.
- (7) Where adequate space is available, an open-air playground with suitable accessories shall also be provided for the children attending the school.
  - (8) There shall be provided for every such educational and other equipment as may be considered necessary by the Director of Public Instruction or such other authority appointed by him.
  - (9) No person shall be permitted to teach in a school unless he has the required qualifications as per education code rules and holds a license granted by the Director of Public Instruction. 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 Director of Public Instructions or such other authority as may be appointed by him may, subject to such conditions specified, relax any of the qualifications.
  - (10) The curriculum, duration, standard, and syllabus of the course of instruction to be imparted in the primary school shall be such as may be prescribed by the Education Department.
  - (11) No fees shall be charged from the children of workers attending the primary school.
133. Failure to Provide and Maintain Certain Facilities. -
- (1) If in any plantation the employer does not provide and maintain all or any of the facilities and amenities required to be provided under rules 93 to 101, 103, 104, 106, 107, 118 to 123, 125, and 126, the Chief Inspector cum Facilitator shall issue a notice to the employer requiring him to provide the facilities and amenities within 30 days of the receipt of the notice. If no satisfactory reply is received within the time specified or the required facilities or amenities are not provided, he may require the Chief Engineer, Public Works Department, to provide facilities and amenities and to construct the building(s) for the purpose in conformity with the provisions contained in the said rules at Government cost and send a certificate of the cost incurred therefor to the Chief Inspector cum Facilitator.
  - (2) The Chief Inspector cum Facilitator shall arrange to provide other facilities and amenities required to be provided under the said Rules at Government cost.
  - (3) After estimating the total cost incurred under sub-rule (1 & 2), the Chief Inspector cum Facilitator shall require the employer in writing to remit the amount so estimated within a month, failing which the Chief Inspector cum Facilitator shall issue a certificate for the amount to the District Collector concerned who may recover the amount as arrear of land revenue.
  - (4) The recurring expenditure, if any, incurred under sub-rule (1) and (2), shall be recovered in the manner specified in sub-rule (3).
134. Special safeguards for the employment of women and adolescents in using or handling hazardous chemicals under Section 93.-  
Prohibition and restriction on the employment of women and adolescent workers in hazardous occupations involving the use or handling of hazardous chemicals— No woman worker or adolescent worker shall be engaged in the handling, storing, or transportation of insecticides, chemicals, and toxic substances by the employer in his plantations.
135. Appointment, qualification and duties of controller of chemicals.-
- (1) In every plantation having an extent of 50 hectares of land or more or growing plantation crops, a Controller of Chemicals shall be appointed to supervise and guide the use of handling, storage, and transportation of insecticides, chemicals, and toxic substances in plantations.
  - (2) The Controller of Chemicals shall not be a person below the rank of Welfare Officer. He shall possess a Degree in Public Health or a Degree in Agriculture Science and needs to be posted on a contract basis as and when necessary, part-time or full-time.

- (3) The Controller of Chemicals shall. —
- (i) advise the employer on health and safety issues.
  - (ii) be responsible for the storage of equipment, chemicals, insecticides, etc.;
  - (iii) be responsible for co-ordination and transportation of chemicals, insecticides and personnel involved in the above process;
  - (iv) be responsible for reporting any incident and/or accident involving chemicals due to use of insecticides spraying;
  - (v) ensure good relation with the workers and their representatives;
  - (vi) ensure the correct use of chemicals and its spraying where spraying of chemical occurs;
  - (vii) ensure that protective clothing and dust mask are provided to the spraying personnel and make sure that they are using it during their duty time;
  - (viii) ensure correct use of safety procedure and control of quality spraying;
  - (ix) keep people, especially children away from danger of exposure to spraying;
  - (x) note the quantity of chemicals and insecticides prepared as and when it issued;
  - (xi) monitor storage, usage and disposal of chemicals by the labourers of plantations.

136. Training.-

The employer shall organize training in handling chemicals, insecticides, and toxic substances and also adopt safety precautions in handling equipment provided to the workers. The training program shall be organized on the following matters, namely,-

- a. Procedure involved in handling, mixing, blending, and applying of insecticides, chemicals, and toxic substances;
- b. Control the quality of the spraying and the quality of the solution used;
- c. To see that the equipment is well maintained and cleaned after work;
- d. Method of transferring the insecticide to the spraying machine;
- e. Keeping people, especially children, away at the time of spraying;
- f. Manner in which the chemicals and insecticides are to be stored;
- g. Manner of mixing the chemicals to prepare the insecticide solution;
- h. The use of protective clothing and mask at the time of spraying;
- i. Training on the hazards involved in different operations;
- j. The procedure regarding the spillage of insecticides, chemicals, and toxic substances.

137. Medical examination of workers .-

- (1) Every worker who is exposed to insecticides, chemicals and toxic substances shall be examined once in a year in Garden Group Hospital, Garden Hospital or any other hospitals specified in this Rule.
- (2) The details of periodical medical examination and tests conducted shall be reentered the register provided for the same as shown in Form -XXXIII
- (3) Any person showing symptoms of poisoning shall be immediately examined and given first aid measures as listed below:-
  - (i) Put the affected person in a clean, well-ventilated place.
  - (ii) Check how the toxic product entered the body.
  - (iii) Keep the label and collect all possible details of the accident so as to provide the doctor complete information.
  - (iv) It is very important that the poisoned person is allowed to continue breathing properly. Provide artificial respiration if necessary. The correct posture is with the person lying on his back with his head tilted back, or on his side. If he is hot and sweating, cool him with cold water; if he is cold, cover him with clothes or a blanket.

- (v) Do not allow the poisoned person to smoke or drink, especially alcoholic drinks, milk, or water containing olive oil, as this may be harmful to him.
  - (vi) Inform the toxicological center immediately.
  - (vii) Adequate medical treatment shall be administered.
138. Washing, bathing and cloak room facilities.-  
Every employer shall provide washing, bathing and cloak room facilities to every worker engaged in handling insecticides, chemicals toxic substances. Protective clothing and equipment shall be provided for—
- (i) every worker handling insecticides, chemicals and toxic substances during their operation, distribution, mixing and spraying shall be adequately protected with appropriate clothing;
  - (ii) the protective clothing shall be made of materials which prevent or resist the penetration of any one of insecticides, chemicals and toxic formulation. The materials shall also be washable so that the toxic element maybe removed after each use:
  - (iii) a complete suit of protective clothing shall consist of the following dresses namely, -protective outer garment with at;
    - (a) rubber gloves or such other protective gloves extending up to the fore arm made of materials impenetrable to liquids;
    - (b) dust proof goggles; rubber boots the legs of protective cover all should be worn outside the boots,
    - (c) reusable cloth masks.
139. Precautionary notices.-  
Precautionary notices shall be exhibited in plantations which shall contain the following precautionary measures, namely, -
- a) Always read the label before using any insecticide or pesticide.
  - b) Use only target specific insecticides or pesticides which have minimum effects on non-targeting organisms (human beings and other animals).
  - c) Use insecticides or pesticides only when they are necessary. First try to use other types of control methods like cultural control, mechanical control, physical control, biological control and genetic control. Use chemical control as your last option.
  - d) Always use gloves, full covering cloths, closed shoes and mask before applying any type of chemical.
  - e) Use only their commended dose which is written on the label of the product. Never use dose higher or lower than the recommended dose.
  - f) Always apply insecticides or pesticides in the direction of the wind and never spray opposite to the direction of wind because all chemicals will shower or fall on you if you apply chemical opposite to the direction of the wind.
  - g) Use only those insecticides which are degradable in normal temperature.
  - h) Avoid chemicals which are highly persistent.
  - i) Never smell any insecticide or pesticide because it is very dangerous for health.
  - j) Use vegetables or food items after 15 days of the spray of chemicals.
  - k) Keep chemicals (insecticides or pesticides) away from the reach of children.
  - l) If toxicity is caused by any chemical, then a doctor shall be contacted immediately, and while consulting the doctor, remember to take the bottle of pesticide or insecticide handled by the employee because with reference to the label of the bottle, the doctor would suggest proper treatment.
  - m) It is better to apply chemicals in the evening or in the morning. Try to avoid spraying in the afternoon because during this time, chemicals are less effective due to degradation by direct sunlight.

- n) Always spray the chemicals according to the forecast of weather. Never spray if there is a forecast of rainfall.
  - o) Try to use modern insecticides because these are comparatively safe as compared to conventional insecticides.
  - p) Always remember that using insecticides without proper safety measures is extremely dangerous and it may even cause death. Always keep in mind the precautionary measures before using any chemical.
  - q) Dispose of the bottle of chemical properly.
  - r) Do not wash insecticide and pesticide containers near wells or running streams.
  - s) Keep fresh water, soap, and a towel ready for use.
  - t) Wash hands and exposed skin thoroughly with soap and water before eating, drinking, smoking, and chewing.
  - u) Keep insecticides and pesticides in the original, labeled containers.
  - v) Never reuse the containers for any other purpose as it is impossible to remove the traces of insecticides and pesticides from the containers wholly.
140. Aerial spraying operations.-  
The aerial application of insecticides chemicals and toxic substances shall be subject to the following conditions namely.-
- (a) Marking of the areas shall be the responsibility of the controller of chemicals.
  - (b) The operators shall use only approved insecticides and their formulations at approved concentration and height.
  - (c) Washing, decontamination, and first-aid facilities shall be provided by the operators.
  - (d) All aerial operations shall be notified to the public, not less than twenty-four hours in advance through competent authorities as notified by the Government in the Gazette.
  - (e) Animals and persons not connected with the operations shall be prevented from entering such areas for a specific period; and
  - (f) The pilots shall undergo specialization training in spraying; including clinical effects of the insecticides.
141. Disposal of used packages, surplus materials and washing of insecticides and other chemicals;-
- (1) It shall be the duty of the employer to dispose of surplus materials and washing of insecticides and other chemicals in a manner so as to prevent environmental, water or air pollution.
  - (2) The packages of insecticides and chemicals once used shall be left outside to prevent their reuse.
  - (3) The packages of insecticides and chemicals shall be broken and buried away from habitation.
142. Constitution of Advisory Board .-  
The State Government shall by notification in the Official Gazette constitute an Advisory Board for consultation in regard to matters connected with housing. The Advisory Board shall meet at least twice in a year during the months of January and June, at such time and place as maybe appointed by the Chairman.
143. Composition of the Board.-
- (1) The advisory Board shall consist of,-
    - (i) the Secretary to the State Government in Department concerned, who shall be the Chairman of the Board;
    - (ii) two officials to be nominated by the State Government; and
    - (iii) five representatives each of employers and workers nominated in consultation with the interests concerned.

- (iv) One representative of the staff other than workers nominated in consultation with interest concerned.
  - (2) The Chief Inspector of Plantations shall be the Convener of the Board.
  - (3) No Act or proceedings of the Advisory Board shall be invalid on the ground of any defect in the constitution of, or any vacancy in the Board.
144. Term of Office, etc., of members.-
- (1) A non-official member nominated to the Board at the time of its reconstitution shall, unless he resigns his office or dies, hold office for a period of three years from the date of the notification appointing him as a member of the Board and shall be eligible for re-nomination. A non-official nominated as a member of the Board in the vacancy caused by resignation of office or death of another member or in the vacancy caused by any of the causes mentioned under sub-rule 5, shall hold office for the period to which the original member would normally have continued had his membership not been discontinued:  
 Provided that an outgoing member shall continue in office until the appointment of his successor is notified.
  - (2) The official members of the Board shall hold office during the pleasure of the State Government.
  - (3) Every non-official member shall be entitled to draw travelling and daily allowances at the rates fixed by the State Government from time to time for any journey performed by him for attending a meeting of the Advisory Board.
  - (4) A non-official member may resign his office by letter, addressed to the chairman of the Advisory Board, and his office shall fall vacant from the date on which his resignation is accepted by the Chairman.
  - (5) A nominated member may be declared by the chairman of the Advisory Board to have vacated his office-
    - (a) if he become insolvent;
    - (b) if he is convicted of an offence, which in the opinion of the State Government involves moral turpitude; or
    - (c) if he is absent from three consecutive meetings of the Advisory Board without leave of absence from its chairman; or
    - (d) if the State Government considers it undesirable that he shall continue to be a member of the Advisory Board; or
    - (e) if he is declared to be of unsound mind by a competent Court.
  - (6) (a) Every question which the Advisory Board is required to take into consideration, shall be considered either at its meeting or, if its chairman so desires, by circulating the necessary papers to all the members for their opinion:  
 Provided that papers need not be circulated to a member who is at the time outside India.
    - (b) When a question is circulated for opinion under sub-rule (a) any member may request that the question be considered at a meeting of the Advisory Board and there upon the chairman may, and if he requests is made by three or more members, shall, direct that it be so considered.
  - (7) The Advisory Board shall meet at such time and place at least twice in a year as may be appointed by the chairman.
  - (8) (a) Notice shall be given to every member of time and place fixed for each ordinary meeting at least fifteen days before such meeting and each member shall be furnished with a list of business to be transacted at the meeting:  
 Provided that, when an emergent meeting is called by the Chairman, a notice giving such reasonable time as he may consider necessary, shall be deemed sufficient.

- (b) No business which is not in the list shall be considered at a meeting without the permission of the chairman.
- (9) The Chairman of the Advisory Board shall preside at every meeting of the Board at which he is present of the Chairman is absent from any meeting the members present shall elect one of the members to preside over the meeting and the member so elected shall at the meeting exercise all the powers of the Chairman.
- (10) No business shall be transacted at a meeting of the Advisory Board whether ordinary or emergent unless at least three members of which one representative each of employers, workers and of the government are present:  
 Provided that if at any meeting, less than the three members are present, the chairman of the Advisory Board may adjourn the meeting to a date not later than seven days, informing the members present and sending notice to other members that he proposes to dispose of the business at the adjourned meeting, whether there is a quorum or not, and he may thereupon dispose of the business at such adjourned meeting even if there is no quorum.
- (11) (a) Every question at a meeting of the Advisory Board shall be decided by a majority of votes of the members present and voting on the question but minority shall have the right or getting their dissent recorded. In the case of an equality of votes, the Chairman shall have a second or casting vote.  
 (b) Every question, referred to the member opinion shall, unless the Chairman reserves it for consideration at a meeting, be decided in accordance with the opinion of the majority of members submitting their opinions within the specified time.
- (12) (a) The proceedings of each meeting of the Advisory Board shall be circulated to all members not later than two months from the date of meeting and thereafter recorded in a minute book which shall be kept for permanent record.  
 (b) The record of the proceedings of each meeting shall be signed by the Chairman of the Advisory Board or, as the case may be, by the person presiding at that meeting.

145. Powers and Function of the Advisory Board .-

- (1) The Advisory board shall advise the State Government as regards standards and specifications of houses which may be approved.
- (2) The Advisory Board shall scrutinize the yearly progress reports from employers and advise the State Government to issue such instructions in the light thereof as will ensure compliance with the relevant provisions of the Act and these rules within the scheduled period.
- (3) In addition to matters specified in sub-rule (1) and (2), the Advisory Board shall consider and report on any matter connected with housing of workers which may be referred to it by the State Government or by the Chairman of the Advisory Board.

146. Appeals. -

- (1) An appeal against the orders of an Inspector cum Facilitator under this chapter shall lie to the Chief Inspector cum Facilitator. The appeal shall be filed within thirty days of the receipt of the order and the appellate authority after giving both parties an opportunity of being heard, shall either reject the application or decide in any manner it deems fit:  
 Provided that the appellate authority may if it is satisfied that the appellant was prevented by sufficient cause from preferring the appeal within the said period of thirty days, extend the said period by further period of thirty days.
- (2) All appeals under sub-rule (1) shall be in the form of a memorandum setting forth concisely the grounds of objection to the order and shall be accompanied by a certified copy of the order appealed against, duly signed by the appellant or, on his behalf, by a duly authorised agent or legal practitioner.

- (3) On receipt of the memorandum of appeal, the appellate authority shall, if it thinks fit, appoint an assessor within two weeks to assist in the disposal of the appeal. 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.

#### CHAPTER - XIV OFFENCES AND PENALTIES

147. Appointment of Authority.-

- (1) The Government may appoint an officer in the Labour, Employment, Skill Development & Entrepreneurship Department in the rank of Joint Labour Commissioner as the authority for imposing penalty under subsection (1) of section-111 of the code after holding enquiry.  
Provided in the case of factories the Government may appoint an officer in the Factories and Boilers Department in the rank of Joint Director as the authority for imposing penalty under sub section (1) of section-111 after holding enquiry.
- (2) The State Government may appoint sub-ordinate officers and staffs to the enquiry officer as it considers necessary for the efficient discharge of its function under the Code and rule.
- (3) The manner of holding enquiry under sub-section (1) of section 111 of the Code shall be followed as prescribed by the Central Government.

148. Appointment of appellate authority.-

The Labour Commissioner of the State shall be appellate authority under sub-section (3) of section-111 of the Code.

Provided that in the case of factories the Director of Factories and Boilers shall be the appellate authority under subsection (3) of section-111.

149. Compounding of Offences.-

The State Government shall notify as many officers not below the rank of District Labour Officer of Labour Department as an officer for compounding of offences under sub section (1) of section-114 of the Code.

150. Manner of compounding of offences by the officer.-

- (1) 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- XXXIV 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).
- (2) 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.
- (3) The Compounding Officer, after due enquiry, found that the offence is compoundable, issue an order of composition directing to deposit the amount within fifteen days from the date of receipt of order.
- (4) On receipt of the amount of composition, the Compounding Officer shall issue an intimation notice in writing to the Judicial First-Class Magistrate Court or the officer where the prosecution or enquiry is pending to discharge the accused.

- (5) The accused person, if failing to remit the compounding amount within the time prescribed in sub-rule (3), is liable for a fine according to sub-section (3) of section 114.
- (6) The accused person failed to remit the composition amount as per sub rule (3) and (5), the compounding officer shall issue a certificate for that amount to the District Collector concerned who shall recover the same as arrears of land revenue.
- (7) The amount of composition received and credited shall be recorded in a register to be maintained electronically in Form-XXXV.

CHAPTER -XV  
SOCIAL SECURITY FUND

151. Social security fund.-

- (1) The Government shall notify in the gazette, sources from which the social security fund under subsection (2) of section 115 of the Code may be augmented.
- (2) It shall also notify the manner in which the fund shall be administered and expended for the welfare of the unorganized workers and the transfer of any amount in the fund to any other fund established under any other law for the time being in force for the welfare of the unorganized workers.

CHAPTER- XVI  
MISCELLANEOUS

152. Common licence.-

- (1) Application for the common licence in respect of a factory and for engaging contract workers or any combination thereof or single licence for any of them under sub section (1) of sections 119 of the Code shall be submitted electronically in FORM-XXI along with such fee and to such authority as maybe notified by the government.
- (2) On receipt of an application, the authority shall investigate or cause to be investigated to his satisfaction about the correctness of the facts and particulars furnished in the application and other documents submitted along with it and grant such license.
- (3) Where the authority is of the opinion that the license shall not be granted, he shall after affording reasonable opportunity to the applicant to be heard make an order rejecting the application, recording the reasons and shall communicate it to the applicant within forty five days of such application.
- (4) If the authority fails to grant or reject such application within the prescribed time, the license shall be deemed to be issued and autogenerated.
- (5) Any person aggrieved by an order passed under this section by the authority under Section 119 may file, within thirty days from the date of the order, an appeal electronically to such authority, and with such fee notified by the Government, which shall be disposed within sixty days.

153. Inquiry under section 121.-

- (1) In the event of the occurrence of an accident, which has caused or had the potentiality to cause serious danger to employees and other persons within, and in the vicinity of the workplace, or whether immediate or delayed, or any occupational disease as specified in the Third Schedule, which has been or is suspected to have been contracted in epidemic proportions, the State Government may appoint one or more persons possessing legal or special knowledge or competent enough to inquire into the causes of the accident or disease. They are tasked with fixing responsibilities and suggesting a plan of action to prevent such accidents or diseases in the future, submitting the report to the Government.

- (2) The Chief Inspector-cum-Facilitator may appoint a committee to undertake a survey on the situation relating to safety or health at any workplace or class of workplaces or into the effect of work activity on the health of the employees and other persons within and in the vicinity of the workplace as and when required.
- (3) The officer directed or committee appointed, under sub-section (1) or sub-section (2), to hold an inquiry, shall have the powers of a civil court under the Code of Civil Procedure, 1908, for the purposes of enforcing the attendance of witnesses and compelling the production of documents and material objects for the purposes of the inquiry, exercising such powers of an Inspector-cum-Facilitator under this rule as may be necessary.

PART- A  
SCHEDULES (See rule 84)

- (i) Manufacture of aerated waters and processes incidental thereto
- (ii) Electrolytic plating or oxidation of metal articles by use of an electrolyte containing acids, based on salts or metals such chromium, nickel.
- (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) Generating petrol gas from petrol.
- (viii) Cleaning, smoothening, roughening, etc., of articles, by a jet of sand, metal shot, grit, or other abrasives propelled by a blast of compressed air or stream.
- (ix) Liming and tanning of raw hides and skins and processes incidental thereto.
- (x) Certain lead process carried on in printing presses and certain type foundries.
- (xi) Manufacture of pottery.
- (xii) Chemical works.
- (xiii) Manipulation of stone or any other material containing free silica.
- (xiv) Handling and processing of asbestos, manufacture of any articles of Asbestos and any other process of manufacture or otherwise in which Asbestos is used in any form.
- (xv) Handling and manipulation of corrosive substances.
- (xvi) Processing of cashew nut.
- (xvii) Compression of oxygen and hydrogen produced by electrolysis of water.
- (xviii) Process of Extracting Oils and Fats from vegetable and Animal Sources in solvent Extraction Plants.
- (xix) Manufacture or Manipulation of Manganese and its compounds.
- (xx) Manufacture and Manipulation of dangerous pesticides.
- (xxi) Manufacture handling and usage of benzene and substance containing benzene.
- (xxii) Manufacturing process or operation in carbon disulphide plants.
- (xxiii) Manufacture or Manipulation of Carcinogenic Dye Intermediates.
- (xxiv) Operation involving High Noise Levels.
- (xxv) Manufacture of Rayon by Viscose process.
- (xxvi) Highly flammable liquids and flammable compressed gases.
- (xxvii) Operation in Foundries.
- (xxviii) Textile machinery except used in jute mills;
- (xxix) Process of melting in induction furnace;
- (xxx) Woodworking machinery;
- (xxxi) Rubber mills;
- (xxxii) Centrifugal machines;

- (xxxiii) Power presses;
- (xxxiv) Shears, slitters and guillotine machines;
- (xxxv) Thermic fluid heaters;
- (xxxvi) Manufacture of chromic acid or manufacture or recovery of the bichromate of sodium, potassium or ammonium; and
- (xxxvii) Welding/cutting operation with the use of LPG/Acetylene/Argon.

PART -B  
Schedules

- (1) i. Dyeing, stenciling and painting of mats, matting and carpets in Coir and Fiber Factories.
- ii. Cellulose Spraying.
- iii. Graphite powdering and incidental processes.
- iv. Curing, Canning or other processing offish.
- (2) "First employment" means employment for the first time in a hazardous process of operation so notified under section 82, or reemployment therein after cessation of employment in such process or operation for a period exceeding three calendar months.
- (3) The provision specified in the scheduled shall apply to any class or description of factories wherein dangerous manufacturing process or operation are carried on.
- (4) (a) For the medical examinations of workers to be carried out by the Medical Officer as required by the Schedules annexed to this rule, the occupier of the factory shall pay fees at the rate shown in Appendix-II per examination of each worker every time he/she is examined.
- (b) The fees prescribed in sub-rule (4) (a) shall be exclusive of any charges for biological, radiological or other tests which may have to be carried out in connection with the medical examination. Such charges shall be paid by the occupier.
- (c) The fees to be paid for the medical examinations shall be paid into the local Treasury under the appropriate head of account.
- (5) Notwithstanding the provisions specified in the schedules annexed to this rule, the Inspector-cum-Facilitator may, by issuing orders in writing to the employer or occupier or both, direct them to carry out such measures and within such time as may be specified in such order with a view to removing conditions dangerous to the health of the workers or to suspend any process where such process constitutes, in the opinion of the Inspector-cum-Facilitator, imminent danger of poisoning or toxicity.

Any register or record of medical examinations and tests connected therewith required to be carried out under any of the Schedules annexed hereto in respect of any workers shall be kept readily available to the Inspector-cum-Facilitator and shall be preserved till the expiry of the year after the worker ceases to be in employment of the factory / establishment.

PART A  
SCHEDULE – 1  
(See rule 84)

Manufacture of aerated waters and Processes incidental thereto

- 1. Fencing of machines – All machines for filling bottles or siphons shall be so constructed, placed or fenced as to prevent, as far as may be practicable, a fragment of a bursting bottle or siphon from striking any person employed in the factory.
- 2. Face guards and gauntlets
  - (1) The occupier shall provide and maintain in good condition for the use of all persons engaged in filling bottles or siphons–

- (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 Paragraph 2 (1) shall not apply where bottles are filled by means of an automatic machine so constructed that no fragment of a bursting bottle can escape:  
 Provided further that a machine so constructed that, only one arm of the bottler at work upon it is exposed to danger, a gauntlet need not be provided for the arm which is not exposed to danger.
- (2) The occupier shall provide and maintain in good condition for the use of all persons engaged in corking, crowing, screwing, wiring, foiling, capsuling, sighting or labelling bottles or siphons.
  - (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 forefinger.
- 3. Wearing of face-guards and gauntlets – All persons engaged in any of the processes specified in paragraph 2 of this schedule shall, while at work in such processes, wear the face-guards and gauntlets provided under the provisions of the said paragraph.

#### Schedule - II

(See rule 84)

Electrolytic plating or oxidation of metal articles by use of an electrolyte containing acids, bases or salts of metal such as chromium, nickel, cadmium, Zinc, copper, silver, gold etc.

1. Definitions:- For the purpose of this schedule–
  - a) “Electrolytic process” means the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing acid, base or salts of metal such as chromium, nickel, cadmium, zinc, copper, silver, gold etc.
  - b) “Bath” means any vessel used for an electrolytic process for any subsequent process; and
  - c) “Employed” means employed in any process involving contact with liquid from a bath.
2. Exhaust draught –An efficient exhaust draught shall be applied to every vessel in which any electrolytic process is carried on. Such draught shall be provided by mechanical means and shall operate on the vapour or spray given off in the process as near as may be at the point of origin. The exhaust draught appliance shall be so constructed, arranged and maintained as to prevent the vapour or spray entering into any room or place in which work is carried on.
3. Prohibition relating to women and young persons –No woman, adolescent or child shall be employed or permitted to work at a bath.
4. Floor of work rooms –The floor of every work room containing a bath shall be impervious to water. The floor shall be maintained in good and level condition and shall be washed down at least once a day.
5. Protective devices
  - i. 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) Water-proof aprons and bibs, and
    - b) For persons actually working at a bath loose fitting rubber gloves and rubber boots or other water-proof footwear.
  - ii. The occupier shall provide and maintain for the use of all persons employed suitable accommodation for the storage and drying of the protective devices.
6. Water facilities

- (1) They 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 fitted with a waste pipe, and of sufficient length to allow at least 60cms. For every five 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 60cms., or
      - ii. at least one wash basin for every 5 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.
  - (2) In addition to the facilities in sub-paragraph 1; an approved type of 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 source of clean water for emergency use.
7. Cautionary Placard –A cautionary placard in the form specified below and printed in the language of 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 the plant are corrosive and poisonous.
2. Smoking, chewing, tobacco, eating and food or drinking, in this area is prohibited. No food stuff or drinks 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. Medical facilities and records of examination 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) provided 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.
  2. The medical practitioner shall examine all workers before they 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.
  3. The record of the examinations referred to in sub-paragraph 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.

8. Medical Examination by the Medical Officer.
  1. Every worker employed in the electrolytic process, shall be examined by the Medical Officer 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 of nickel in urine; and
    - (c) in case of cadmium plating, test for cadmium in urine and- 2 macroglobulin in urine.
  2. No worker shall be employed in electrolytic process unless certified fit for such employment by the Medical Officer.
  3. Every worker employed in the electrolytic process shall be re-examined by the Medical Officer 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 re-examination shall, wherever the Medical Officer considers appropriate, include testes specified under sub-paragraph (10) excluding the X-ray of the chest which shall not be required normally to be carried out earlier than in once in three years.
  4. The Medical Officer after examining a worker shall issue a certificate of Fitness in FORM-VI. 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-paragraph (1) and (2) including the nature and the results of the tests, shall also be entered by the Medical Officer in health register in FORM-V.
  5. The certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  6. If at any time the Medical Officer 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/she 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/she 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/she is fully in capacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.
  7. No person who has been found unfit to work as said in sub-paragraph (6) shall be reemployed or permitted to work in the said processes unless the Medical Officer, after further examination, again certified him fit for employment in those processes.

#### Schedule - III

(See rule 84)

#### 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 stationery battery.
2. Definitions –For the purposes of this Schedule-
  - a. “Lead Process” means the melting of lead or any other 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 women or young person shall be employed or permitted to work in any lead process or in any room in which the manipulation of raw oxide of lead or pasting is carried on.
4. Separation of certain processes –Each of the following processes shall be carried on in such a manner and under such conditions as to secure effectual separation from one another, and from any other process:-
  - a. Manipulation of raw oxide of lead;
  - b. Pasting;
  - c. Drying of pasted plates;
  - d. Formation with lead burning (“tacking”) necessarily carried on in connection there with; and
  - e. Melting down of pasted plates.
5. Airspace– 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 3.65meters shall be taken into account.
6. Ventilation – Every work-room shall be provided with inlets and outlets of adequate size as to secure and maintain efficient ventilation in all parts of the room.
7. Distance between workers in pasting room – In every pasting room the distance between the centre of the working position of any paster and that of the paster working nearest to him shall not be less than 1.5 meters.
8. Floor of work-rooms
  - a. The floor of every room in which a lead process is carried on shall be-
    - i. of cement or similar material so as to be smooth and impervious to water;
    - ii. maintained in sound condition; and
    - iii. kept free from materials, plant or other obstruction not required for, or produced in, the process carried on in the room.
  - b. In all such rooms other than grid casting shops the floor shall be cleaned daily after being thoroughly sprayed with water at a time when another work is being carried on in the room.
  - c. In grid casting shops the floor shall be cleaned daily.
  - d. Without prejudice to the requirements of sub-paragraphs (1), (2) and (3) where manipulation of raw oxide of lead or pasting is carried on, the floor shall also be-
    - i. Kept constantly moist while work is being done;
    - ii. Provided with suitable and adequate arrangements for drainage;
    - iii. Thoroughly washed daily by means of hosepipe.
9. Work benches – The work benches at which any lead process is carried on shall–
  - a. Have a smooth surface and be maintained in sound condition.
  - b. Be kept free from all materials or plant not required for, or produced in the process carried on there; and all such work benches other than those in grid casting shops.
  - c. Be cleaned daily either after being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on there; and all such work benches in grid casting shops.
  - d. Be cleaned daily; and every work-bench used for pasting.
  - e. Be covered throughout with sheet lead or other impervious material;
  - f. Be provided with raised edges; and
  - g. Be kept constantly moist while pasting is being carried on.
10. Exhaust draught –
  - (1) The following processes shall not be carried on without the use of an efficient exhaust draught:-
    - a. Melting of lead or materials containing lead.

- b. Manipulation of raw oxide of lead, unless done in an enclosed apparatus so as to prevent the escape of dust into the work-room;
  - c. Pasting;
  - d. Trimming, brushing, filing or any other abrading or cutting of pasted plates giving rise to dust; and
  - e. Lead burning, other than-
    - i. "Tracking" in the formation room; and
    - ii. Chemical burning for the making of lead lining for cell cases necessarily carried on in such manner that the application of efficient exhaust is impracticable.
- (2) 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 its point of origin, so as to prevent from entering the air of any room in which persons work.
11. Fumes and gases from melting pot. –The products of combustion produced in the heating of any melting pot shall not be allowed to escape into a room in which persons work.
  12. Container for dross– A suitable receptacle with tightly fitting cover shall be provided and used for dross as it is removed from every melting pot. Such receptacle shall be kept covered while in the work-room, except when dross is being deposited therein.
  13. Container for lead waste – A suitable receptacle shall be provided in every work room in which old plates and waste materials which may give rise to dust shall be deposited.
  14. Racks and shelves in drying room
    - a. The racks or shelves provided in any drying room shall not be more than 2.4 meters from the floor not more than 60 centimeters in width:  
Provided that as regards racks or shelves set or drawn from both sides the total width shall not exceed 120centimeters.
    - b. Such racks or shelves shall be cleaned only after being thoroughly damped unless an efficient suction cleaning apparatus is used for this purpose.
  15. Protective clothing – (1) Protective clothing shall be provided and maintained in good repair for all persons employed in-
    - a. Manipulation of raw oxide of lead;
    - b. Pasting; and
    - c. The formation room;
 and such clothing shall be worn by the person concerned.
  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, and adequate means for warming food. The mess-room shall be placed 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 clothing if wet. Such accommodation shall be separated from any mess-room; and
    - b. Separate and suitable arrangements for the storage of protective clothing provided under paragraph 15.
  18. Washing facilities
    - a. There shall be provided and maintained in a clean state and in good repair for the use of all persons employed in a lead process-
      - i. A wash place under covers with either:-
        1. a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow of at least 60 centimeters 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 centimeters; or
2. At least one wash basin for every five such persons employed at any one time fitted with a waste pipe and plug and having a constant supply of water laid on;
  - ii. A sufficient supply of clean towels made of suitable materials renewed daily, which supply, in the case of pastors and persons employed in the manipulation of raw oxide of lead, shall include a separate marked towel for each such worker; and
  - iii. A sufficient supply of soap or other suitable cleaning material and of nailbrushes.
  - iv. 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 to be 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 who has been employed in the manipulation of raw oxide of lead or in pasting;  
 Provided that if there be one basin or 60 cm 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 for all persons engaged in the manipulation of raw oxide of lead or in pasting and a sufficient supply of soap and clean towels
21. Food, 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 examination and tests.-
- a. The occupier of every factory in which manufacture and repair of electric accumulators is carried on shall-
    - i. employed 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
    - ii. Provided to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
  - b. The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintain in a separate register approved by the Chief Inspector- cum-Facilitator, which shall be kept readily available for inspection by the Inspector- cum-Facilitator
23. Medical Examination by the Medical Officer.  
 Every worker employed in lead process, shall be examined by a Medical Officer within 15 days of his first employment. Such examination shall include test for lead in urine and blood, ALA in urine, haemoglobin, content, stippling of cell and steadiness test. No worker shall be allowed to work after 15 days of his employment in the factory unless certified fit for such employment by the Medical Officer.
1. Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every three calendar months. Such re-examination shall, wherever the Medical Officer considers appropriate, include test specified under sub-paragraph (1).
  2. The Medical Officer after examining a worker shall issue a certificate of Fitness in FORM - VI 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 tests, shall all so be entered by the Medical Officer in a health register in FORM-V.

3. Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
4. If at any time the Medical Officer 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/she 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/she considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternative placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer in which case the person affected shall be suitably rehabilitated.
5. No person who has been found unfit to work above shall be re-employed or permitted to work in the said processes unless the Medical Officer, after further examination, again certifies him fit for employment in these processes.

Schedule - IV  
(See rule 84)  
Glass Manufacture

1. Definitions – For the purpose of this Schedule-
  - a) "Efficient exhaust draught" means localized ventilation, effected by mechanical means for the removal of gas, vapour, dust or fumes so as to prevent them (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient, which fails to remove smoke generated at the point where such gas, vapour, fumes, or dusts 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 of soluble lead compound exceeding, when calculated as lead monoxide, five percent of the dry weight of the portion taken for analysis.  
The method of treatment shall be as follows:  
A weighted quantity of the materials which has been dried at 100-degree C. and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 percent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate.
2. Exhaust draught – The following process 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 "batch";
  - 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 dry lead compound.
3. Prohibitions relating to women and young persons – No pregnant women 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. Floors and work benches – The floor and work-benches of every room in which a dry compound of lead is manipulated or in which any process is carried on giving off silica dust shall be kept moist and shall comply with the following requirements. -

- a) The floors shall be –
  - i. of cement or similar materials so as to be smooth and impervious to water;
  - ii. maintained in sound condition; and
  - iii. cleansed daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room; and
- b) the work benches shall-
  - i. has smooth surface and be maintained 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 thereat.
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 work-place shall be so enclosed in projecting hoods that openings required for bringing in the objects to be treated shall be as small as practicable; and
  - d) The efficient exhaust draught shall be so contrived that the gases are exhausted downwards
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 providing with a separate blow pipe bearing the distinguishing mark of the person to whom it is issued and suitable facilities shall be readily available to every glass blower for sterilizing his blowpipe.
8. Food, drink, etc., prohibited in work-rooms. – No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any room or work-place wherein any process specified in paragraph 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, foot-wear 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 the all persons employed in the processes specified in paragraph2-
  - 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 cm 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 cm.; 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 cleaning materials 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 records of examination and tests.-
  - a) The occupier of every factory in which glass manufacturing process are carried out, shall
    - i. 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 of factories; and

- ii. Provide to the said medical practitioner all the necessary facilities for the purposes referred to in clause (a).
  - b) The record of medical examination and appropriate test carried out by the said medical practitioners shall be maintain 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 the Medical Officer.-
- 1. Every worker employed in process, specified in paragraph 2 shall be examined by a Medical Officer within 15 days of his first employment. Such examination shall include pulmonary function test and in suspected cases chests X-ray as well as test for lead and urine. 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 Medical Officer.
  - 2. Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every 12 calendar months. Such re-examination shall, whenever the Medical Officer considers appropriate, include test as specified under sub-paragraph (1).
  - 3. The Medical Officer after examine a worker, shall issue a certificate of Fitness in FORM-VI. The record of examination and re-examinations carried out shall be entered in the certificate and the certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Medical Officer in health register in FORM-V.
  - 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 Medical Officer 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/she shall make are cord of his finding in the said certificate and the health register. The entry of his findings in these documents should also include the period for which he/she considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternative placement facility unless he/she is fully in capacitated in the opinion of the Medical Officer, 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) above shall be re-employed or permitted to work in the said processes unless the Medical Officer, after further examinations, again certifies him fit for employment in these 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 method of work or the special conditions in a factory or otherwise, any of the requirements of this schedule can be suspended or relaxed without danger to the persons employed therein, or that the application of this schedule or any part thereof is for any reason in practicable, he/she 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/she may think fit.

Schedule - V  
(See rule 84)

Grinding or glazing of metals and Processes incidental thereto

- 1. *Exceptions:-*
  - 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 purpose of the 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 or manual by means of any wheel, buff, mop or similar appliance to which any abrading or polishing substance is attached or applied.
  - e) "Racing" means the turning up, cutting or dressing of a revolving grindstone before it is brought into use for the first time.
  - f) "Hacking" means the chipping of the surface of a grindstone by a hack or similar tool.
  - g) "Rodding" means the dressing of the surface of a revolving grindstone by the application of a rod, bar or strip of metal to such surface.
3. Equipment for removal of dust:- No racing, dry grinding or glazing shall be performed without:-
- a) A hood or other appliances so constructed, arranged, placed and maintained as substantially to intercept the dust thrown off; and
  - b) a duct of adequate size, air-tight and so arranged as to be capable of carrying away the dust, which duct shall be kept free from obstruction and shall be provided with proper means of access for inspection and cleaning, and where practicable, with a connection at the end remote from the fan to enable the Inspector-cum-Facilitator 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 operation: 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 up on a grindstone is done.
6. Hacking and rodding:- Hacking and 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:-
- a) All equipment for the extraction or suppression of dust shall at least once in every six months be examined and tested by a competent person and any defect disclosed by such examination and test shall be rectified as soon as practicable.
  - b) A register containing particulars of such examination and test shall be kept in FORM-AG.
8. Medical facilities and records of examination and tests.-
- a) The occupier of every factory in which grinding or glazing of metals are carried out, shall-

- i. 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
    - ii. Provided to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
  - b) 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 Medical Officer.-
- 1. Every worker employed in grinding or glazing or metal and processes incidental thereto shall be examined by a Medical Officer within 15 days of his first employment such examination shall include pulmonary function test and in suspected cases chests 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 Medical Officer.
  - 2. Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every 12 calendar months. Such re-examination shall, whenever the Medical Officer considers appropriate, include testes specified under sub-paragraph (1).
  - 3. The Medical Officer after examine a worker, shall issue a certificate of Fitness in FORM VI. 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 tests, shall all so be entered by the Medical Officer in health register in FORM-V.
  - 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 Medical Officer 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/she 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/she considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternative placement facilities unless he/she is fully in capacitated in the opinion of the Medical Officer, 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 reemployed or permitted to work in the said processes unless the Medical Officer, after further examinations, again certified him fit for employment in those processes.
10. Exemption:- The Chief Inspector-cum-Facilitator may be certificate in writing, subject to such conditions as he/she 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.

Schedule - VI  
(See rule 84)

Manufacture and treatment of lead and certain compounds of lead

- 1. 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 de-silvering of lead or the melting of scrap lead or zinc.
  - c) the manufacture of solder or alloys containing more than ten per cent of lead.
  - d) the manufacture of any oxide, carbonate, sulphate, chromate, acetate, nitrate or silicate of lead.
  - e) handling or mixing of lead tetra-ethyl.
  - f) any other operation involving the use of a lead compound; and
  - g) the cleaning of work-rooms where any of the operations aforesaid are carried on.
2. Definitions:— For the purposes of this schedule-
- a) "Lead Compound" means any compound of lead other than galena, which when treated in the manner described below, yields to an aqueous solution of hydrochloric 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 substances 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 100C 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 0.24 percent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate.
  - b) "Efficient Exhaust Draught" means localized ventilation effected by heat or mechanical means, for the removal of gas, vapour, dust or fumes so as to prevent them (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fumes or dust originate.
3. Prohibition relating to women and young persons:— No pregnant woman 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 compound 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 contrived as to operate on the dust, fume, gas or vapour as closely as possible to the point of origin.
6. Food, drinks, etc. prohibited in work rooms:— No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any work-room in which the process is carried on and no person shall remain in any such room during intervals for meals or rest.
7. Protective clothing:.- Suitable protective overalls and head coverings shall be provided, maintained and kept clean by the occupier and such overalls and head coverings shall be worn by the persons employed.
8. Cleanliness of work-room, tools, etc.:— The rooms in which the persons are employed and all tools and apparatus used by them shall be kept in a clean state.
9. Washing facilities
- a) The occupier shall provide and maintain for the use of all persons employed suitable washing facilities consisting of-

- b) a trough with a smooth impervious surface fitted with a waste pipe without plug and of sufficient length to allow at least 60 cm for every ten persons employed at any one time and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 60 cm; or
  - c) at least one wash-basin for every ten persons employed at any one time, fitted with a waste pipe and plug and having constant supply of clean water; together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleaning materials and clean towels.
  - d) The facilities so provided shall be placed under the charge of responsible person and shall be kept clean.
10. 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.
11. 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.
12. Medical facilities and records of examination and tests.- (1) 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 appointment shall be subject to the approval of the Chief Inspector-cum-Facilitator, and
  - b) provided to the said medical practitioner all the necessary facilities for the purpose referred to in clause(a).
  - c) 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.
13. Medical Examination by the Medical Officer:-
- 1. Every worker employed in processes referred to in paragraph 1 shall be examined by a Medical Officer within 15 days of his first employment. Such examination shall include test for lead in blood and urine, ALA in urine, haemoglobin content, stippling or cells and steadiness test. No worker shall be allowed to work after 15 days of his employment in the factory unless certified fit for such employment by the Medical Officer.
  - 2. Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every 3 calendar months. Such re-examination shall, wherever the Medical Officer considers appropriate, include testes specified in sub-paragraph (1).
  - 3. The Medical Officer after examining a worker, shall issue a Certificate of Fitness in FORM VI. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results of the tests, shall all so be entered by the Medical Officer in health register in FORM V.
  - 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 Medical Officer 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/she 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/she considers that the said persons is unfit for work in the said processes. The person so suspended from the process shall be provided with alternative placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer, 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) above shall be re-employed or permitted to work in the said processes unless the Medical Officer, after further examinations, again certifies him fit for employment in those processes.
14. Exemption:- If 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/she may by certificate in writing exempt any factory from all or any of such provisions, subject to such conditions as he/she may specify.

Schedule - VII  
(See Rule 84)  
Generating Petrol Gas from Petrol

1. Prohibition relating to women and young persons:- No women or young person shall be employed or permitted to work in or shall be allowed to enter of 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 coming into force of the provisions specified in this schedule, shall be erected outside the factory building proper in a separate well-ventilated building (hereinafter referred to as the “generating building”). In the case of such plants erected before the coming into force of the provisions specified in this schedule there shall be no direct communications between the room where such plants are erected (hereinafter referred to as “the generating room”) and remainder of the factory building. So far as practicable, all such generating rooms shall be constructed of fire resting materials.
4. Fire extinguisher– 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. Plan to be approved by Chief Inspector-cum-Facilitator – Petrol Gas shall not be manufactured except in a plant for generating Petrol Gas, the design and construction of which has been approved by the Chief Inspector-cum-Facilitator.
6. Escape of petrol – Effective steps shall be taken to prevent petrol from escaping into any drain or sewer.
7. Prohibition relating to smoking etc. – No person shall smoke or carry matches, fire, or naked light or other means of producing a naked light or spark in the generating room or building or in the vicinity thereof. A warning notice in the language understood by the majority of the workers shall be pasted in the factory, prohibiting smoking and the carrying of matches, fire, or naked light or other means of producing a naked light or spark into such room or building.
8. Access to petrol or container– No unauthorized person shall have access to any petrol or to a vessel containing or having actually contained petrol.
9. Electric fittings– All electric fittings shall be of flame proof construction and all electric conductors shall either be enclosed in metal conduits or be lead sheathed.

10. Construction of doors:- All doors in the generating room or building shall be constructed to open outwards or to slide and no door shall be locked or obstructed or fastened in such 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 petrol shall be repaired on a generating room or building and no repairs to any such vessel shall be undertaken unless lie 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 petrol or inflammable vapour.

#### Schedule - VIII

(See rule 84)

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

1. Definitions – For the purpose of this schedule-
  - a) “blasting” means cleaning, smoothing, roughening, or removing of any part of the surface of any article by use as an abrasive of a jet of sand, metal shot or grit or other material, propelled by a blast of compressed air or steam.
  - 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 Casting” where done as an incidental or supplemental process in connection with the making of metal casting, 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–
  - a) 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:
  - b) Provided further that this clause shall come into force two years after the coming into operation of this schedule:
  - c) Provided further that no pregnant woman or young person shall be employed or permitted to work at any operation of sandblasting.
  - d) Precautions in connection with blasting operations
    - (i) Blasting shall not be done except in a blasting enclosure and no work other than blasting and any work immediately incidental thereto and cleaning and repairing of the enclosure including the plants and appliances situated therein, shall be performed in a blasting enclosure. The enclosure shall be kept closed and air tight while blasting is being done therein.
    - (ii) Blasting enclosure shall always be maintained in good condition and effective measures shall be taken to prevent dust escaping from such enclosures, and from apparatus connected therewith, into the air of any room.
    - (iii) 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.

- (iv) 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.
  - (v) The ventilation plant provided for the purpose of sub-paragraph (4) shall be kept in continuous operation whenever the blasting enclosure is in use whether or not blasting is actually taking place therein, and in the case of a blasting chamber, it shall be in operative even when any person is inside the chamber for the purpose of cleaning.
3. Inspection and Examination.-
- a) 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 there with and the ventilating plant, shall be thoroughly examined and in the case ventilating plant, tested by a competent person at least once, in every month.
  - b) Particulars of the result of every such inspection, examination and test shall forth with 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 forgoing requirements of this schedule, shall be removed without delay.
4. Provision of protecting helmets, gauntlets and overalls.-
- a) There shall provide 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 persons shall wear the helmet provided for this use while he/she is in the chamber and shall not remove it until he/she is outside the chamber.
  - b) Each protective helmet shall carry a distinguishing mark indicating the persons 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.
  - c) Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate of not less than 170 litres per minute.
  - d) Suitable gauntlets and overalls shall be provided for the use of all persons while performing blasting or assisting at blasting, and every such person shall while so engaged, wear the gauntlet and overall provided.
5. Precautions in connection with cleaning and other work.-
- a) Where any person is engaged upon cleaning of any blasting apparatus or blasting enclosure or any apparatus or ventilating plant connected therewith or the surroundings thereof or upon any other work in connection with any blasting enclosure or with any apparatus or ventilating plant connected therewith so that he/she is exposed to the risk of inhaling dust which has arisen from blasting, all practicable measures shall be taken to prevent such inhalation.

- b) 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.
6. 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.
7. Maintenance and cleaning of protective wear.- All helmets, gauntlets, overalls and other protective devices or clothing provided and worn for the purpose 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.
8. Maintenance vacuum cleaning plant.- Vacuum cleaning plant used for the purpose of this schedule shall be properly maintained.
9. Medical facilities and records of examinations and tests.-
- a) The occupier of every factory to which the schedule applies shall-
- i) employs 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;
- ii) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
- b) 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.
10. Medical Examination by the Medical Officer.-
- a) Every worker employed in any of the processes to which this schedule applies shall be examined by a Medical Officer within 15 days of his first employment. Such examination shall include pulmonary function test and chest X-ray. No worker shall be allowed to work after 15 days of his employment in the factory unless certified fit for such employment by the Medical Officer.
- b) Every worker employed in the said processes shall be re-examined by Medical Officer at least once in every 12 Calendar months and such re-examination shall, whenever the Medical Officer considers appropriate include pulmonary function tests and chest X-ray once in every three years.
- c) The Medical Officer after examining a worker, shall issue a Certificate of Fitness in FORM VI. The record or examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results tests, shall all so be entered by the Medical Officer in health register in FORM-V.
- d) The certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- e) If at any time the Medical Officer 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/she 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/she considers that the said persons are unfit for work in the said process. The person so suspended from the process shall be provided with alternative placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.
- f) No person who has been found unfit to work in the said in sub-paragraph (5) above shall be re-employed or permitted to work unless the Medical Officer, after further examination, again certifies him fit for employment in those processes.
11. Restrictions in employment of young persons.-
- a) No person under 18 years of age shall be employed in blasting or assisting at blasting or in any blasting chamber or in the cleaning of any blasting apparatus or any blasting enclosure or any apparatus or ventilating plant connected therewith or be employed on maintenance or repair work at such apparatus, enclosure or plant.
- b) No person under 18 years of age shall be employed to work regularly within 20 feet of any blasting enclosures unless the enclosure is in a room and he/she is outside that room where he/she is effectively separated from any dust coming from the enclosure.
12. Power to exempt or relax.-
- a) 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 can be suspended either temporarily or permanently, or can be relaxed without endangering the health of the persons employed or that application of any of such requirements is for any reason impracticable or inappropriate, he/she 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.
- b) Where an exemption has been granted under sub-paragraph (1), a copy of the order shall be displayed at a notice at a prominent place at the main entrance or entrances to the factory and also at the place where the blasting is carried on.

Schedule - IX  
(See rule 84)

Liming and Tanning of Raw Hides and Skins and Process Incidental Thereto

1. Cautionary notices-
- a) 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.
- b) A copy of warning notice as to anthrax in the form specified by the Chief Inspector-cum-Facilitator shall be given to each person employed when he/she is engaged, and subsequently if still employed, on the first day of each calendar year.
- c) Cautionary notice 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.
- d) 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.

- e) If any person employed in the factory is illiterate effective steps shall be taken to explain carefully to such illiterate person the contents of the notice specified in sub-paragraphs (1), (2) and (4) and if chrome solutions are used in the factory the contents of the notice specified in sub-paragraph (3).
2. Protective clothing - The occupier shall provide and maintain in good condition the following articles of protective clothing:-
- a) waterproof footwear, leg coverings, aprons and gloves for person employed in processes involving contact with chrome solutions, including the preparation of such solutions;
  - b) gloves and boots for persons employed in lime yard; and
  - c) water proof foot wear, aprons and gloves for persons employed in processes involving the handling of hides or skins, other than in processes specified in clauses (a) and (b)above:  
 Provided that the gloves, aprons, leg coverings or boots, may be of rubber or leather, if the gloves and boots to be provided under sub-paragraph (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 cloak room. – 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 60centimetres for every ten persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 cm; or at least one wash basin for every ten such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water; together within either case, a sufficient supply of nail brushes, soap or other suitable cleansing materials, and clean towels;
  - b) a suitable mess-room, adequate for the number remaining on the premises during the meal intervals, which shall be furnished with sufficient tables and benches and adequate means for warming food and 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 cloak-room and (3) be placed under the charge of a responsible person;
    - iii. be placed under the charge of a responsible person; and
  - c) suitable accommodation so 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 work rooms– No food, drink, pan and superior tobacco shall be brought into or consumed by any worker in any work room or shed in which hides or skins are stored, treated or manipulated.
5. Medical facilities and records of examinations and tests.-
- a) The occupier of every factory to which the schedule applies shall-
    - i. 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;
    - ii. provided to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a);
    - iii. arrange for inspection of the hands of all the persons keeping in contact with chromium substances to be made twice a week; and

- iv. provide, 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.
  - b) 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 of Factories, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
6. Medical Examination by the Medical Officer.-
- a) Every worker employed in any of the processes to which this schedule applies shall be examined by a Medical Officer within 15 days of his first employment. Such examination shall include skin test for dermatoses and detection of anthrax bacillus from local lesion by gram stain. No worker shall be allowed to work after 15 days of his employment in the factory unless certified fit for such employment by the Medical Officer.
  - b) Every worker employed in the said processes shall be re-examined by Medical Officer at least once in every 12 calendar months. Such re-examination shall, whenever the Medical Officer considers appropriate, include testes specified in sub-paragraph (1).
  - c) The Medical Officer after examining a worker, shall issue a Certificate of fitness in FORM-VI. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results tests, shall all so be entered by the Medical Officer in Health register in Form-V.
  - d) The Certificate of Fitness and the Health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - e) If at any time the Medical Officer 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/she 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/she considers that the said persons is unfit for work in the said processes. The persons so suspended from the process shall be provided with alternative placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.
  - f) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said process unless the Medical Officer, after further examination, again certifies him fit for employment in those processes.

Schedule - X  
(See rule 84)

Printing press and type foundries and certain lead process carried on therein

1. Definition – For the purpose of this schedule.-
- a) "lead material" means material containing not less than five percent of lead;
  - b) "lead process" means–
    - (i) the melting of lead or any lead material for casting and mechanical composing;
    - (ii) the re-charging of machines with used lead material; or
    - (iii) any other work including removal of dross from melting pots, cleaning of plungers; and
    - (iv) manipulation movement or other treatment of lead material.
  - c) "Efficient exhaust draught" means localised ventilation effected by heat or mechanical means for the removal of gas, vapour, dust or fumes so as to prevent them from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove gas, vapour, fume or dust at the point where they originate.

2. Exhaust draught.-
  - a) None of the following process 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:-
    - (i) melting lead material or slugs; and
    - (ii) heating lead material so that vapour containing lead is given off.
  - b) Such exhaust draught shall be effected by mechanical means and so contrived as to operate on the dust, fumes, gas or vapour given off as closely as may be at its point of origin.
3. Prohibition relating to women and young persons – No women or young person shall be employed or permitted to work in any lead process.
4. Separation of certain process .– Each of the following process shall be carried on in such a manner and under such conditions as to secure effectual separation from one another and from any other process –
  - a) melting of lead or any lead material;
  - b) casting of lead ingots; 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 work room near the machine except when the dross is being deposited therein.
6. Floor of work-room – The floor of every work-room where lead process is carried on shall be-
  - a) of cement or similar material so as to be smooth and impervious to water;
  - b) maintained in sound condition; and
  - c) shall be cleansed throughout daily after being thoroughly damped with water at a time when no other work is being carried on at the place.
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 clean state and in good repair for the use of all persons employed on a lead process
  - a) a wash place with either-
    - (i) a trough with smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60centimetres 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 cm; or
    - (ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having an adequate supply of water laid on or always readily available; and
  - b) a sufficient supply of clean towels made of suitable material renewed daily with sufficient supply of soap or other suitable cleaning material.
9. Food, drinks, etc., prohibited in work rooms.– No food, drink, pan and superior tobacco shall be consumed or brought by any worker into any work room in which any lead process is carried on.
10. Medical facilities and records of examination and tests.-
  - a) The occupier of every factory to which the schedule applies shall-
    - (i) Employ a qualified medical practitioner for medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector-cum-Facilitator.;
    - (ii) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).

- b) 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.
11. Medical Examination by the Medical Officer.-
- a) Every worker employed in a lead process shall be examined by the Medical Officer within 15 days of his first employment. Such examination shall include tests for lead in urine and blood, ALA in urine, haemoglobin, stippling of cells and steadiness test. No worker shall be allowed to work after 15 days of his employment in the factory unless certified fit for such employment by the Medical Officer.
- b) Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every 6 calendar months. Such re-examination shall, whenever the Medical Officer considers appropriate, include tests as specified in sub-paragraph (1).
- c) The Medical Officer after examining a worker shall issue a Certificate of fitness in FORM-VI. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Medical Officer in a health register in Form-V.
- d) The Certificate of Fitness and the health registers shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- e) If at any time the Medical Officer 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/she shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should include the period for which he/she considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternative placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.
- f) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Medical Officer, after further examination, again certifies him fit for employment in those processes.
12. Exemption.- Where the Chief Inspector-cum-Facilitator is satisfied that all or any of the provisions of this schedule are not necessary for protection of persons employed, he/she may by certificate in writing exempt any factory from all or any of such provisions subject to such conditions as he/she may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-Facilitator.

Schedule - XI

(See rule 84)

Manufacture of Pottery

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 purpose of this schedule-

- a) "pottery" includes earthenware, stoneware, porcelain, China tiles and any other articles made from clay or from mixture containing clay and other materials such as quartz, flint, feldspar and gypsum;
  - b) "efficient exhaust draught" means localized ventilation effected by mechanical or other means for the removal of dust or fume so as to prevent 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 scalping, towing, sand papering, sand sticking, brushing or any other process of cleaning or 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 percent of its dry weight of a soluble lead compound calculated as lead monoxide when determined in the manner described below:  
A weighed quantity of the material which has been dried at 100 degrees centigrade and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 percent by weight 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;
  - f) "ground or powered 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 draught: –
- a) all processes involving the manipulation or use of a dry and unfretted 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) shifting of clay dust or any other material for making tiles 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 materials is so damp that no dust is given off;
  - e) the 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 materials is so damp that no dust is given off;
  - f) process of loading and unloading of saggars where handling and manipulation of ground and powered 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-cum-Facilitator of Factories as adequate, having regard to all the circumstances of the case;
  - h) fettling of biscuit ware which had been fired in powered flint or quartz except where this is done in machines so enclosed as to effectually prevent the escape of dust;
  - i) ware cleaning after the application of glaze by dipping or other process;

- j) crushing and dry grinding of materials for pottery bodies, and saggars, unless carried on in machines so enclosed as to effectually prevent the escape of dust or is so damp that no dust can be given off.;
  - k) sieving or manipulation of powered flint, quartz, clay, grog or mixture of these materials unless it is so damp that no dust can be given off;
  - l) grinding of tiles on a power-driven wheel unless an efficient water spray is used on the wheel;
  - m) lifting and conveying of materials by elevators and conveyors unless they are effectively enclosed and so arranged as to prevent escape of dust into air in or near to any place on which persons are employed.
  - n) Preparation or weighing out of flow material, lining of dry colours, colour dusting and colour blowing.
  - o) mould making unless the bins or similar receptacles used for holding plaster of Paris are provided with suitable covers; and
  - p) Manipulation of calcined material unless the material has been made and remains so wet that no dust is given off.
4. Separation of processes- Each of the following processes shall be carried on in such a manner and under such conditions so as to secure effectual separation from one another, and from other wet processes:-
- a) crushing and dry grinding or sieving of materials, fettling, pressing of tiles, drying of clay and greenware, 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 not a leadless glaze or a low solubility glaze shall be used in factory in which pottery is manufactured.
6. Prohibition relating to women and young persons.- No woman or young person shall be employed or permitted to work in any of the operations specified in paragraph 4, or at any place where such operations are carried on.
7. 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.-
- a) All practical measures shall be taken by damping or otherwise to prevent dust arising during cleaning of floors.
  - b) 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 or certain works rooms.- The floors of potter's shops, slips 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.-
- a) The occupier shall provide and maintain suitable overalls and head covering for all persons employed in process employed in process included under paragraph 3.
  - b) The occupier shall provide and maintain suitable aprons of water proof or similar material, which can be sponged daily, for the use of the dippers, dippers' assistants, throwers, jolly workers, casters, mould makers and filter press and pug mill workers.
  - c) Aprons provided in pursuance of paragraph 10 (2) 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.
  - d) No person shall be allowed to work in emptying sacks of dusty materials, weighing out and mixing of dusty materials and charging of ball mills and plungers without wearing a suitable and efficient dust respirator.

11. Washing facilities - The occupier shall provide and maintain, in a clean state and in good repair for the use of all persons employed in any of the processes specified in paragraph 3.
  - a) a wash place under cover, with either-
    - (i) at rough with smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60centimetres for every 5 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 60centimetres; 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 cm a part; and
  - b) a sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.
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.-
  - a) There shall be provided and maintained for use of all persons remaining within the premises during the rest interval, a suitable messroom providing accommodation of 0.93 square meter per head and furnished with-
    - (i) a sufficient number of tables and chairs or benches with back rest;
    - (ii) arrangement for washing utensils;
    - (iii) adequate means for warming food; and
    - (iv) adequate quantity of drinking water.
  - b) 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 work-rooms- No food, drink, pan and supari or tobacco shall be brought into, or consumed by any worker in any work room in which any of the processes mentioned in paragraph 3 are carries on and no person shall remain in any such room during intervals for meals or rest.
15. Cloak room, 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 cloak-room for clothing put off during working hours and such accommodation shall be separated 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 examination and tests.-
  - a) The occupier of every factory to which the manufacture or pottery is carried, on shall-
    - (i) 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 of Factories.
    - (ii) Provided to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).
  - b) 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 of Factories, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
17. Medical Examination by the Medical Officer.-
  - a) Every worker employed in any process mentioned under paragraph 3, shall be examined by a Medical Officer within 15 days of his first employment. Such examination shall include

- tests for lead in urine and blood. ALA in urine, haemoglobin content, stippling of cells and pulmonary function tests and chest X-ray for workers engaged in process mentioned in clauses 9(a) and (n) of paragraph 3 and pulmonary function tests and chest X-rays for the others. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical Officer.
- b) All persons employed in any of the process, include under sub-paragraphs 3 (a) and 3 (n) shall be examined by a Medical Officer once in every calendar month. Those employed in any other process mentioned in the remaining sub-paragraphs of paragraph 3 shall be examined by a Medical Officer once in every 12 calendar months. Such examinations in respect of all the workers shall include all the test as specified sub- paragraph (1) except chest X-ray which will be once in 3 years.
  - c) The Medical Officer after examining a worker shall issue Certificate of Fitness in FORM-VI. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results of the tests shall also be entered by the Medical Officer in a health register in FORM-V.
  - d) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - e) If at any time the Medical Officer 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/she 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/she considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternative placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.
  - f) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Medical Officer, after further examination, again certifies him fit for employment in those processes.
18. Exemption – If in respect of any factory the Chief Inspector-cum-Facilitator 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/she may by a certificate in writing exempt such factory from all or any of such provisions, subject to such conditions as he/she may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-Facilitator without assigning any reasons.

Schedule - XII  
PART 1  
(See rule 84)  
Chemical Works

1. Application.- This schedule shall apply to all manufacture and process incidental thereto carried on 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 'C' 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 works is carried on.

- c) "bleaching powder" means the bleaching powder commonly called chloride of lime;
- d) "chlorate" means chlorate or per chlorate.
- e) "caustic" means hydroxide of potassium or sodium.
- f) "chrome process" means the manufacture of chromate or bichromate 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 or 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 exert serious affliction of health or chronic harmful effects on the health of persons exposed to it due its inherent chemical or biological effects. In respect to substances whose TLV is specified in Rule exceeding the concentration specified therein wood made 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 could result in big fire or explosion or pollution to the work and outside environment, affecting the workers or neighbourhood in a series manner, demanding immediate action;
- k) "dangerous chemical reactions" means high speed reactions, run-away reactions, delayed reactions, etc., and are characterized 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) "appropriate 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 of factories;
- n) "appropriate personal protective equipment" means that when the protective equipment is used by the worker, he/she 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 on 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 "C"

1. Housekeeping.
  - (i) Any spillage of materials shall be claimed up before further processing.
  - (ii) Floors, platforms, stairways, passages and gangways shall be kept free of any obstructions.
  - (iii) They shall be provided easy means of access to all parts of the plant to facilitate cleaning.
2. Improper use of chemicals.- No chemicals or solvents or empty containers containing chemical or solvents shall be permitted to be used by workers for any purposes other than in the processes for which they are supplied.
3. Prohibition on the use of food, etc., - No food, drink, tobacco, pan or edible item shall be stored or heated or consumed or on nearby part of the plant or equipment.
4. Cautionary Notices and Instructions
  - (i) Cautionary notices in a language understood by the majority of the 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 hazards such as consequences or testing of material of substances used in the process or using any contaminated container for drinking or eating, to which the workers attention should be drawn for ensuring the safety and health.
- (ii) In addition to the above cautionary notice, arrangement shall be made to instruct educate are 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 their work. Such instructions and education should also deal with the hazards involved in authorized and unsafe practices including the properties of substances used in the process under normal conditions as well as abnormal conditions and the precaution to be observed against each and every hazard. Further an undertaking from the workers shall be obtained within one month of their employment and for old workers employed within one month of coming in to operation of the rules, to the effect that they have read the contents of the cautionary notice and instructions, understood them and would abide them. The training and instructions to all workers and all supervisory personnel shall include the significance of different types of symbols and colours used on the label struck or painted on the various types containers and pipe lines.
5. Evaluation and provision of safe guards for the commencement of process
- (i) Before commencing any process or any experimental work, or any manufacture covered under Appendix "C", 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-paragraph (1) above should be sent to the Chief Inspector-cum-Facilitator at the earliest but in no case less than 15 days before commencing manufacture, handling or storage of any of items covered under Appendix "C", whether on experimental basis, or as pilot plant or as trail production or as large scale manufacture.
- (iii) The design, Construction, installation, operator maintenance and disposal of the buildings, plant and facilities shall take into consideration effective safe guards against all the safety and health hazards so evaluated.
- (iv) The requirements under sub-paragraph (1) to 3 shall not act in lieu of or in derogation to any other provisions, contain in any act governing the work.
6. Authorised 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 reaction are taking place or where hazards chemicals are store.
7. Examination of instruments and safety devices.
- (i) All instruments safety devices use in the process shall be tested before taking into use and after carried 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) (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 all times.
8. Electrical installation- All electrical installations used in the process covered in Appendix "C" 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 the 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 labelling 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 supervisions 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
  - (iii) Without prejudice to the generality of the requirements in sub paragraph (2) above, the arrangement shall have suitable ventilation facilities and shall enable the maintenance of safe levels in vessels and containers. Such arrangement shall also take into consideration, the type of flooring and the capacity of flooring and the compatibility requirements of substance with other chemical stored nearby.
  - iv)
    - 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 used.
    - 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 any thing contained in clause 9 (a) and (b) above the Chief Inspector-cum-Facilitator of Factories may direct any factory carrying out process covered in Appendix "C" to further limit the storage of hazardous substances to quantity less than two months of consideration of safety.
  - v) Standby arrangements equal to the biggest container shall always be available to transfer the toxic substances quickly into the stand by storage facility in any defect develops in any of container resulting in the release of toxic substance.
  - vi) Any storage facility constructed using non-metallic material such as Fiber Glass Reinforced plastics (FRP) all glasses vessels, etc., shall have adequate strength to withstand the stress, if any, exerted by the contents and shall be properly anchored, working platform, access ladders, pipe line etc. used in such storage facility shall not have any support on the structure of storage facility and shall be independently supported.
10. Facility for isolation.- The plant and equipment shall be constructed and maintained as to enable quick isolation of plant or part of plant or equipments, 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. Personnel protective equipment
  - (i) All workers exposed to the hazards in the process 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 personnel protective equipment while carrying out the job.
  - (iii) As regards any doubt regarding appropriateness of any personnel protective equipment, the decision of the Chief Inspector-cum-Facilitator will be final.
12. Alarm System.
  - (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 system 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 of Factories 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 substance in to the work atmosphere
- (i) Effective arrangements such as, enclosure or by-pass, or efficient exhaust drought, maintained 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 substance 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-paragraph (2), 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 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 and equipment.
- a) All parts of plant, equipment and machinery use 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 procedure. In carrying out the test as mentioned above in respect of pressure vessels or reaction vessels the following precautions shall be observed, namely:-
- (i) 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 matter. During the process of cleaning and removal of sludge, if any, all due precautions shall be taken against fire or explosion, of such sludge is of pyrophoric nature or contains spontaneous combustible chemicals;
- (ii) 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 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.
- b) 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.
- c) Records of testing and examination referred to in paragraph (1) and (2) shall be maintained as long as that part of the plant, equipment and machinery are in use.
- d) 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 repair or modification is done on pipe lines, and joints are required to be welded, but welding joints shall be preferred. Wherever necessary the responsible person shall regulate the aforesaid work through a "permit to work system".

16. Staging.
  - a) All staging that is created 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.
  - b) 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 stage
  - c) All the staging constructed for the purpose of this para shall have appropriate access which are safe and shall be fitted with proper hand rails to a height of 1metre and to be board.
17. Seating arrangements. - The seating arrangements provided for the operating personal working in process covered in Appendix "A" shall be located in the 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 working confined spaces
  - a) 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.
    - (i) 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 the health of persons entering into or working inside, the confined spaces;
    - (ii) regulate the entry or work inside the confined spaces through a "permit to work system" which should include the safeguard to developed as required under sub clause (a) above;
    - (iii) before testing the confined space for entry into or work, the place shall be rendered safe by washing or cleaning with neutralizing agents; or purging with steam inert gases and making adequate forced ventilation arrangements or such measure which will render the confined space safe;
    - (iv) shall arrange to carry out such test 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;
    - (v) 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, resurrection and first-aid, and shall arrange supervision of the work at all times by a responsible and knowledgeable person.
  - b) 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 locations of the work and such other details would have a bearing on the safety and health of the persons assigned for this work. The law book so maintain shall be retained as long as the concerned workers are in service and produced to the Inspector-cum-Facilitator when demand.
19. Maintenance works etc.,
  - a) All the work connected with the maintenance of plants and equipment including cleaning of empty containers which have held hazardous substances used in the process 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 precaution required to deal with them.

- b) Maintenance work shall be carried out in such manner that there is risk to persons in the vicinity or to persons who pass by. If necessary, the place of such work shall be condoned 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 super vision 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 may, machinery shall be rendered safe by cleaning, purging, washing etc,
  - c) all work subject to the permit to the work system shall have predetermined work procedures which integrate safety with the work. Such procedure 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 respect taking into consideration the demand 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 consider necessary and adequate first-aid, rescue and resurrection 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 sample by instructing them on the safe procedures. Such personnel shall be provided with proper and approved personnel 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 build up in the work environment.
23. Procedure for meeting emergencies
- a) The occupier for every factory carrying out the works covered in Appendix "C" shall arrange to identify all types of possible emergencies that could occur in the process during the course of work or while carrying out maintenance work or repair work. The emergency is so identified shall be reviewed every year.
  - b) 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.
  - c) The occupier shall send the list of emergencies and the details of procedures and plants formulated to meet the emergencies to the Chief Inspector-cum-Facilitator of Factories.
  - d) The occupier shall arrange to install distinctive and recognizable 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 well

- e) informed about the warning arrangements and their meaning. The arrangements must be checked for their effectiveness every month.
  - f) 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 paragraph 10, 11, 12, 13, 14, 18, 22 and this paragraph of part II, part III, part IV and Part V of this schedule.
  - g) The occupier shall arrange to suspend 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.
  - h) All the employees of the factory shall be trained about the action to be taken by them including evacuation procedures during emergencies.
  - i) All emergency procedures must be rehearsed every three months and deficiencies, if any, in the achievement of the objectives shall suitably be corrected.
  - j) 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 First Aid measures taking into consideration the special hazards of the particular process.
  - k) The occupier shall furnish immediately on request the specific chemical identity of the hazardous substances to the treating physician when the information is needed to administer proper emergency or first aid treatment to exposed persons.
24. Danger due to effluent.
- a) 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.
  - b) 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

(See rule 84)

#### Fire and Explosion risks

1. Source of ignition including lighting installation
  - a) No internal combustion engine and no electric motor or other electric equipment and fittings mixtures capable of generating sparks or otherwise causing combustion or any other sources of ignition or any naked light shall be installed or permitted to be used in the process area where there could be fire and explosion hazards.
  - b) All hot exhaust pipes shall be installed outside a building and other hot pipes or hot surfaces or surfaces likely to become hot shall be suitably protected.
  - c) The classification of work area 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.
  - d) 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 non-conductive type.
  - e) All tools and appliances used for work in this area shall be of non-sparking type.
  - f) 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 pasted in the factory prohibiting smoking into specified areas.
2. Static Electricity.
  - a) All machinery and plant, particularly, pipe lines and belt drives, on which static charge is likely to accumulate, shall be effectively earthed. Receptacles for inflammable liquid shall

- have metallic connections to the earthed supply tanks to prevent static sparking. Where necessary, humidity shall be regulated.
- b) 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 takes place.
  - c) Lighting protection- Lighting protection arrangement shall be fitted where necessary, and shall be maintained.
  - d) 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 from 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 predetermined temperature below the danger temperature.
3. Leakage of flammable liquids
    - a) Provision shall be made to confine by means of bund walls, dykes, sumps etc., possible leakages from storage vessels containing flammable liquids.
    - b) Waste material in contact with flammable substances shall be disposed off suitably under the supervision of knowledgeable and responsible person.
    - c) Adequate and suitable fire –fighting appliances shall be installed in the vicinity of such vessels.
  4. Safety Valves.-Every still and every closed vessel in which gas is evolved or in to 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.
  5. Installation of pipe line etc.- All pipe lines carrying flammable or explosive substances shall be protected from mechanical damage and shall be examined by a responsible person once in week to detect any deterioration or defects, or accumulation of flammable or explosive substances, and record kept of any defects found and repairs made.
  6. Firefighting system.
    - a) Every factory employing 500 or more persons and carrying out process listed in Appendix "C" shall provide.
    - b) Trained and responsible firefighting squad as to effectively handle the fire fighting and lifesaving equipment in the event of fire or another emergency. Number of persons in this squad will necessarily depend upon the side of risk involved, but no case shall be less than eight such trained persons to be available at any time. The squad shall consist of watch and ward personnel, fire pumpman and departmental supervisors and operators trained in the operation of fire and emergency services.
    - c) Squad leaders shall preferably be trained in a recognised government institution and their usefulness enhanced by providing residence on the premises.
    - d) Squad personnel shall be provided with clothing and equipment including helmets, boots and belts.
  7. 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.
  8. The pumpman 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 be brought to the notice of squad leader.
  9. As far as is practicable, the fire pump from the main gate (s) of the factory shall be connected to all manufacturing or storing areas through telephone, interlinked and placed in a convenient location near such area.

PART- IV  
(See Rule 84)  
Risks of Toxic Substances

1. Leakage.
  - a) All plants shall be so designed and constructed as to prevent the escape of toxic substance. Where necessary, separate building rooms or protective structures shall be used for the dangerous stages of the process and the building shall be so designed as to localise any escape of toxic substances.
  - b) Catch pits, bunt walls, dykes, or other suitable safe guards shall be provided to restrict the serious effects in such leakages. Catch puts 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 where in deleterious material shall be neutralised, treated or otherwise rendered safe before it is discharged into public drains or sewers.
3. Covering of vessels.-
  - a) Every fixed vessel or structure containing any toxic substances 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.
  - b) Such vessel shall, unless its edge is at least 90centimeters above the adjoining ground or platform, be securely fenced to a height of at least 90centimeters above such adjoining ground or platform.
  - c) Where such vessels adjoin and the space between them clear of any surrounding brick or other work is either less than 45centimeters in width or 45 or more centimetres in width, but is not securely fenced on both sides to a height of at least 90 centimeters, secure barriers shall be so placed as to prevent passage between them.

Provided that sub-paragraph 92 of this paragraph shall not apply to –

    - (i) saturators used in the manufacture of sulphate of ammonia; and
    - (ii) that part of the sides of brine evaporating pans which require raking, drawing or filling.
4. Continuous exhaust arrangement.-
  - a) 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.
  - b) 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 process 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.-
  - a) There shall be provided in suitable receptacle made of non-absorbable material with a tightlyfittingcoverfordepositingwastematerialsoiledwithtoxicsubstancesandthecontents of such receptacle shall be destroyed by burning or using other suitable methods under the supervision of a responsible person.
  - b) 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 inactive them, before disposal.
    - (i) The empty containers of toxic substances shall be cleaned thoroughly before disposal under the supervision of a responsible person.

PART - V  
(See rule 84)  
Special Provisions

1. Special precautions for Nitro or Amino processes.-
  - (a) Unless the crystallised nitro or amino substances or any of its liquor is broken or agitated in a completely enclosed process so as not to give rise of dust or fume, such process shall be carried on under an efficient exhaust draught or by adopting any other suitable means in such manner as to prevent the escape of dust or fume in the working atmosphere.
  - (b) 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.
  - (c) Filling of containers with nitro or amino compounds shall be done only by using a suitable scoop or 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 workroom.
  - (d) 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.
  - (e) 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 precaution for "Chrome processes".
  - (a) Grinding and sieving of raw materials in chrome process shall be carried on such a manner and under such condition as to secure effective separation from any other processes and under an efficient exhaust draught.
  - (b) 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.
  - (c) Weekly inspection of hand and feet of all persons employed in chrome process shall be done by a qualified nurse and record of such inspection shall be maintained in a form approved by the Chief Inspector-cum-Facilitator of Factories.
  - (d) 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.
  - (a) 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.
  - (b) 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 provide the risks of fire or explosion or health hazards.
4. Special precaution for processes involving chloride manufacture
  - (a) Crystallisation, grinding or packing of chlorite 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.
  - (b) 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.

- (c) Adequate quantity of water shall be available near the place of chlorate process for use during fire emergency.
  - (d) Wooden vessels shall not be used for the crystallization of chlorite or to contain crystallized ground chlorite.
5. Special precautions in the use of plant and equipments made from reinforced plastics
- (a) All plant and equipments shall conform to appropriate Indian or any other National Standard.
  - (b) Care shall be taken during storage, transport, handling and installation of plant and equipments to avoid accidental damage.
  - (c) All plant and equipments 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 manufacturers.
  - (d) All pipe work shall be supported so that total loads local to the branches on the vessel or tank do not exceed the design values.
  - (e) After erection all plant and equipments 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 standards. A Certificate of test and examination by competent person shall be obtained and kept available at site.
  - (f) All plant and equipments shall be subjected to periodical test and examination and record maintained, as per paragraph 15 in Part II of this schedule.
  - (g) Plant and equipments during their use shall not be subjected to over filling or over loading beyond rated capacity.

#### PART - VI

(See rule 84)

#### Medical Requirements

1. Decontamination Facilities- In all the 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 person, part of body of persons, and clothing or persons who have been contaminated with such toxic and corrosive substances, and such means shall be as shown in the Table below
- |                                    |  |
|------------------------------------|--|
| No. of person employed at any time |  |
| No. of drenching showers           |  |
| Up to 50 persons                   | 2                                      |
| Between 51 to 100                  | 3                                      |
| 101 to 200                         | + 1 for every 50 persons 3 thereafter  |
| 201 to 400                         | + 1 for every 100 persons 5 thereafter |
| 401 and above                      | + 1 for every 200 persons 7 thereafter |
- (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 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 here under-
- (a) For factories employing up to 50 workers.-
    - (i) the services of 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.

- (ii) A minimum of 5 persons trained in first aid procedures, amongst whom at least one shall always be available during the working period.
    - (iii) A fully equipped first-aid box.
  - (b) For factories employing 51 to 200 workers.-
    - (i) 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.
    - (ii) A part-time Factory Medical Officer will be in overall charges of the centre who shall visit the Factory minimum twice in a week and whose services shall be readily available during emergencies.
    - (iii) There shall be one qualified and trained dresser-cum-compounder on duty throughout the working period.
    - (iv) A fully equipped first-aid box.
- 3. Factories employing above 200 workers-
  - (a) There shall be one Full-time Factory Medical Officer for factories employing up to 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 two rooms each having a minimum floor area of 15sq.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, or pharmacist and one Attender throughout the working period.
  - (d) The Occupational Health Centre in this case shall be suitably equipped to manage medical emergencies.
- 4. Ambulance van.
  - (a) In every factory carrying out processes carried in Appendix "C" 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 helper, trained in first-aid for the purpose 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 always be available near the Occupational Health Centre.
  - (b) The relaxation to procure ambulance van from nearby place provided for in sub-paragraph (1) above will not be applicable to factories employing more than 500 workers.
- 5. Medical Examination
  - (a) Workers employed in processes covered in Appendix "C" shall be medically examined by a Factory Medical Officer in the following manner.
    - (i) Once before employment, to ascertain physical suitability of the person to do the particular job;
    - (ii) Once in a period of six months, to ascertain the health status of the worker; and
    - (iii) The details of pre-employment and periodical medical examination carried out as aforesaid shall be recorded in the prescribed form.
  - (b) 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 Medical Officer who shall in turn, examine the concerned workers and communicate his findings within 30 days. If the Medical Officer is of the opinion that the person so examined is required to be suspended from the process for health protection, he/she will direct the occupier accordingly

who shall not employ the said worker the same process. However, the person so suspended from the process shall be provided with alternate placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated:

Provided that the Medical Officer on his own way examine any other worker whom he/she feels necessary to be examined for ascertaining the suitability of his employment in the process covered in Appendix "C" or for ascertaining the health status of any other worker and his opinion shall be final.

- (c) No person shall be newly appointed without the Certificate of fitness granted by the Factory Medical Officer. If the factory Medical Officer declared a person unfit for being appointed to work in the process covered in Appendix "C", such person shall have a right of appeal to the Medical Officer, whose opinion shall be final in this regard.
- (d) The worker suspended from the process owing to the circumstances covered in sub-paragraph (2) shall be employed again in the same process only after obtaining the fitness certificate from the Medical Officer and after making entries to that effect in the health register.

#### PART- VII

(See rule 84)

#### Additional Welfare Amenities

1. Washing facilities.
  - (a) There shall be provided and maintained in every factory for the use of all the workers taps for washing, at the rate of one tap for 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.
  - (b) If washing facilities as required above area 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
  - (a) The occupier of all the factories carrying out processes covered in Appendix "C" and employing 50 workers or more, shall provide for all the workers working in a shift mess facility which are well ventilated and provided with tables and sitting facilities along with the provision of cold and hygienic drinking water facilities.
  - (b) Such facilities shall include suitable arrangements for cleaning and washing and shall be maintained in a clean and hygienic condition.
3. Cloak room facilities
  - (a) The occupier of every factory carrying out any process covered in Appendix "C" 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 in the clothing in a hanging position.
  - (b) The cloak room facilities so provided in pursuance of sub-paragraph (1) shall be located as far as possible near to the facilities provided for washing. If it is not possible to locate the washing facilities, the cloak room facilities shall have adequate and suitable arrangements for cleaning & washing.
4. Special bathing facilities
  - (a) The occupier of any factory carrying the process covered under Appendix "D" 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.
- (b) The occupier shall insist all the workers employed in the processes covered in Appendix "B" to take bath after the completion of the days 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.
  - (c) Notwithstanding anything contained in sub- paragraph (1) above, the Chief Inspector-cum-Facilitator may require in writing the occupier of any factory carrying out any other process for which in his opinion bathing facilities are essential from the health point of view, to provide special bathing facilities.

PART - VIII  
(See rule 84)  
Duties of workers

1. Every worker employed in the processes covered in Appendix "C" and Appendix "D" shall not make any safety device appliances or any guarding or fencing arrangement inoperative or defective and shall report that defective condition of the aforesaid arrangements as soon as is aware of any such defect.
2. Before commencing any work, all workers employed in processes, covered in Appendix "C" shall check their work place as well as the machinery equipment or appliance used in the processes and report any mal-functions or defect immediately to the supervisors or any responsible person of the management.
3. All workers shall co-operative in all respect 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 equipments issued to them in a careful manner.
4. All workers employed in the processes covered in Appendix "C" to Appendix "D" shall not smoke in the process area or storage area if special facilities are provided by the management only such facilities should be used.
5. All workers employed in the process covered in Appendix "C" shall not remain in unauthorized place or carry out unauthorized work or improvise any arrangements or adopt short out 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.
6. The workers shall not refuse undergoing medical examination as required under these rules.

PART - IX  
(See rule 84)

Restriction on the employment of young persons under 18 years of age and women.

1. The Chief Inspector-cum-Facilitator 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 "C" of this schedule on consideration 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- paragraph (1) above shall be provided with alternative work which is not detrimental to their health or safety.

PART - X  
(See rule 84)  
Exemption

1. Power of exemption.- The State Government or subject to the control of the State Government, the Chief Inspector-cum-Facilitator may exempt from the compliance with any of the requirements of this Schedule partly or fully, any factory carrying out processes covered in Appendix "E", if it is clearly and satisfactorily established by the occupier that the compliance with any of the requirements is not necessary to ensure the safety and health of persons employed suitably and effective alternate arrangements are available to any of the requirements covered in this schedule.

Appendix - 'A'

Any works of that part of works in which-

1. the manufacture, manipulation or recovery of any of the following is carried on;
  - (a) Sodium, potassium, iron, aluminium, cobalt nickel, copper, arsenic, antimony, chromium, zinc, selenium, magnesium, cadmium, mercury, beryllium and their organic and inorganicsalts, alloys, oxides and hydroxides.
  - (b) Ammonia, ammonium hydroxide and salts of ammonium;
  - (c) the organic or inorganic compounds of sulphurous, sulphuric, nitric, nitrous, hydrochloric, hydrofluoric, hydroiodic, hydrosulphuric, hydrobromic, boric;
  - (d) Cyanogen compounds, cyanide compounds, cyanate compounds;
  - (e) Phosphorous and its compounds other than organophosphorus insecticides;
  - (f) Chlorine
2. Hydrogen sulphide is evolved by the decomposition of metallic sulphide, or hydrogen sulphide is used in the production of such Sulphides.
3. bleaching power is manufactured or chlorine gas is produced in chlor-alkali plants;
4. (i) gas tar or coal tar or bitumen or shale oil asphalt or any residue of such tar is distilled or used in any process of chemical manufacture;
- (ii) tar based synthetic coloring matters or their intermediate are produced;
5. nitric acid is used in the manufacture of nitro compounds;
6. explosives are produced with the use of nitro compounds;
7. aliphatic or aromatic compounds or their metallic and non-metallic derivatives or substituted derivatives, such as chloroform ethylene glycol, formaldehyde, benzyl chloride, phenol, methyl ethyl key tone peroxide, cobalt carbonyl, tungsten, carbide etc. are manufactured or recovered.

Appendix - 'B'

1. Nitro or amino processes
2. All chrome process
3. Processes of distilling as or coal tar or processes of chemical manufacturer in which tar is used.
4. Processes involving manufacture, manipulation, handling or recovery or cyanogens compounds,
5. Processes involving manufacture of bleaching power or production of chlorine gas in chlor- alkali plants.
6. Manufacture, manipulation or recovery or nickel and its compounds.
7. App. Processes involving the manufacture, manipulation or recovery of aliphatic or aromatic compounds or their derivatives or substituted derivatives.

## Appendix - 'C'

Any works of that part of works in which-

1. 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) Phosphorous and its compounds other than organo phosphorous insecticides;
  - (vi) Chlorine
2. Hydrogen sulphide is evolved by the decomposition of metallic sulphide, or hydrogen sulphide is used in the production of such Sulphides;
3. bleaching power is manufactured or chlorine gas is produced in chlor-alkali plants;
  - i) gas tar or coal tar or bitumen or shale oil asphalt or any residue of such tar is distilled or used in any process of chemical manufacture;
  - ii) tar based synthetic coloring matters or their intermediate are produced;
4. nitric acid is used in the manufacture of nitro compounds;
5. explosives are produced with the use of nitro compounds;
6. aliphatic or aromatic compounds or their metallic and non-metallic derivatives or substituted derivatives, such as chloroform ethylene glycol, formaldehyde, benzyl chloride, phenol, methyl ethyl ketone peroxide, cobalt carbonyl, tungsten, carbide etc. are manufactured or recovered.

## Appendix - 'D'

(See rule 84)

Concerning Special bathing Accommodation in pursuance of paragraph 4 of Part-IV

1. Nitro or amino processes
2. All chrome processes
3. Processes of distilling as or coal tar or processes of chemical manufacturer in which tar is used.
4. Processes involving manufacture, manipulation, handling or recovery of cyanogens compounds, cyanide compound, cyanide compounds.
5. Processes involving manufacture of bleaching powder or production of chlorine gas in chlor-alkali plants.
6. Manufacture, manipulation or recovery of nickel and its compounds.
7. App. Processes involving the manufacture, manipulation or recovery of aliphatic or aromatic compounds or their derivatives or substituted derivatives.

## APPENDIX - 'E'

Ambulance:- Ambulance should have the following equipments;

1. General:
  - A wheeled stretcher with folding and adjusting devices;
  - Head of the stretcher must be capable of being tilted upward;
  - Fixed suction unit with equipments;

- Fixed oxygen supply with equipments;
  - Pillow with case;
  - Sheets;
  - Blankets;
  - Towels;
  - Emesis bag;
  - Bedpan;
  - Urinal;
  - Glass.
2. Safety equipments
- Flares with life of 30minutes;
  - Floodlights;
  - Flashlights;
  - Fire extinguisher dry powder type;
  - Insulated gauntlets.
3. Emergency care equipments Resuscitation
- Portable oxygen unit;
  - Bag-valve-mask, hand operated artificial ventilation unit;
  - Airways;
  - Mouth gage;
  - Tracheotomy adaptors;
  - Resuscitation (p)Portable suction unit;
  - Short spine board;
  - I.V. Fluids with administration Unit;
  - B.P. Manometer;
  - Gugg; Stethoscope.
4. Immobilization
- Long & Short padded boards;
  - Wire ladder splints;
  - Triangular bandage;
  - Long and short spine boards'
5. Dressings
- Gaze pads 4" x4"
  - 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;
  - Burn sheet.
6. Poisoning
- Syrup of Ipecac;
  - Activated Charcoal; Pre-packaged in doses
  - Snake bite kit;
  - Drinking Water;
7. Emergency Medicines  
As per requirements (Under the advice of Medical Officer only).

## SCHEDULE – XIII

(See rule 84)

## MANIPULATION OF STONE OR ANY OTHER MATERIAL CONTAINING FREE SILICA.

The following manufacturing process shall be considered as manipulation of stone or other material containing free Silica.

- a) Stone Crushers
  - b) Gem and Jewellery
  - c) Slate Pencil Making
  - d) Agate Industry
  - e) Cement Industry
  - f) Pottery
  - g) Glass Manufacturing
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.

## PART - 1

(See rule 84)

## PROCESS RISKS IN STONE CRUSHING

1. Location and lay out–
  - (a) No crusher plant shall be constructed or extended to within a distance of 200 m from the centre of the proposed crusher unit to the periphery of the structure of any residence or public building or place of worship. Exception is allowed only for store room and office room.
  - (b) Incases where environmental factors such as terrain and greenery are conducive to reduce spread of pollution and where advanced technology that reduces noise and dust is employed, the minimum distance may be further reduced to 150 m with stringent control measures such as enclosure of crushers, classifiers, screens and other noise/dust producing units with 40 cm thick solid wall (not hollow brick), false roofing and dust extraction system.
  - (c) There should be a minimum clear distance of 100 metres from the centre of crusher of one industry to the centre of crusher of another industry.
  - (d) There should be a clear distance of 200 metres from the centre of the proposed crusher to State or National Highway. For crushers fulfilling the requirements of 2nd above, the minimum distance is reduced to 150 metres.
  - (e) Crushers, classifiers, screens and other noise and/or dust producing units should be housed in buildings with solid wall (not hollow block) of minimum 23-centimetre thickness and with suitable roofing.
2. Electrical Installations–
  - (a) keep the main switch box in good condition, protected from the weather in a separate room. An appropriately sized Earth Leakage Circuit Breakers (ELCB) in all circuits shall be installed and provide good earth or ground connection for all installations to protect the operators form electrical hazards.

- (b) Electrical cables should be laid into the underground cable trench in shock-proof material or taken over head. Cables should be run in extra plastic conduits.
- 3. For work on electrical equipment insulation materials such as approved Insulation/ rubber mats shall be provided in front of the distribution boards and main switches.
- 4. Lock out – tag out system shall be used for all installations which are under maintenance or repair, to prevent others from switching on the machines while another worker is repairing it.
- 5. All distribution points should be marked legibly in an understandable language, marking the feeding point, voltage, and identification number. This will help to Log-Out and make shutdown quicker in case of emergency.
- 6. Required numbers of fire buckets filled with sand or portable-size Carbon Dioxide type fire extinguishers shall be provided for use in case of fire.
- 7. Necessary personal protective equipment like shoes and rubber gloves shall be provided for those deployed in electrical work.
- 8. Risks at Intake hoppers, bunkers for intermediate products–
  - (a) Wheel chokers of adequate strength and height such as raised steel girder or bump shall be provided to prevent accidental fall of trucks into intake hoppers.
  - (b) Railings shall be provided for work platforms near all bunkers.
- 9. Risks of moving parts–
  - (a) Guards shall be installed around all power transmission moving parts such as shafts, couplings, pulleys and drive belts, chains and sprockets and all other moving parts.
  - (b) Nip and shear points of conveyors shall be provided with permanent barrier guards. Guards must extend beyond the in-running nips between the belts and rollers so as to make them inaccessible from above, below and from the ends.
  - (c) Provide continuously accessible conveyor belts with emergency stop cables that extend the entire length of the conveyor belt to allow access to the cable from any point along the belt.
  - (d) Install clearly marked, unobstructed emergency stops buttons or pull cords within easy reach of workers in the areas where they are deployed for duty.
  - (e) Use prominent awareness devices such as warning signs or lights to alert workers to the conveyor operation when it is not feasible to install guarding devices and such unguarded moving parts shall be located away from workers.
  - (f) All conveyor openings such as wall and floor openings, and chutes and hoppers have fencing when the conveyor is not in use.
  - (g) Electrical panel room for crushers, conveyors, vibrators and all other machines in crushing unit shall be kept under lock and key for unauthorized operation of these equipments or accidental operation during maintenance or emergency.
  - (h) All accesses and aisles that cross over or under or are adjacent to the conveyor should have adequate clearance and hand rails or other guards.
  - (i) Where a conveyor passes over work areas, aisles, or thorough fares, suitable guards / protected ceilings shall be provided to protect employees required to work below the conveyors.
  - (j) Post appropriate hazard warning signs at all crossovers, aisles, and passageways.
  - (k) Conveyors should be periodically inspected and tested for safety mechanisms, such as alarms, emergency stops, and safeguarding methods once in every month and log book shall be maintained.
  - (l) Screw conveyor housing should completely enclose the moving elements of the conveyor except for the loading and discharge points. If such guarding is not feasible, the entire conveyor should be fenced by railing unless it is guarded by location. Alternatively, the trough side walls should be high enough to prevent employees from reaching over falling into the trough.

10. Clothing – No worker wearing loose clothing shall be permitted to work near moving machinery and conveyors.
11. Training –
  - (a) No worker shall be allowed to work in stone crushing units without attaining training on the hazards associated with stone crushing process and safe working procedures.
  - (b) Refresher training on the above subject shall also be attended by all the workers once in every year.

PART - 2  
(See rule 84)  
RISKS DUE TO SILICA DUST

1. Preventive Control Measures – No manipulation of stones containing silica shall be carried out in a factory or part of a factory unless the following preventive control measures are adopted, namely-
2. Engineering Control Measures
  - (a) Wet Methods:
    - (i) Airborne Silica Dust should be minimized or suppressed by wetting or drenching the manipulated area with water;
    - (ii) Machines with water drenching nozzles shall be used for drilling or cutting of concrete or masonry;
  - (b) Ventilation:
    - (i) An effective Local exhaust system should be provided and maintained to control/remove silica dust from industrial processes.
    - (ii) Dilution/Ventilation with proper dust collection shall be used to reduce free silica dust concentration to within the permissible limits in large areas. No direct ventilation to atmosphere shall be resorted to.
    - (iii) Dust collectors/High Efficiency Particulate Air (HEPA) filter shall be set up so that dust is removed from the source and all the transfer points to prevent contaminating work areas.
    - (iv) Ventilation systems should be kept in good working conditions.
3. Isolation:
  - (a) Effective containment methods should be used while carrying out sand blasting. Wet blasting shall be ideal.
  - (b) Cutting and drilling of cabins of vehicles or machinery that might contain free silica should be effectively enclosed and sealed.
4. Dust Control:
  - (a) Vacuum system with High Efficiency Particulate Air (HEPA) filter shall be used to remove dust from work areas and from all transfer points;
  - (b) The belt conveyors transferring crushed material shall be totally enclosed throughout its length of travel;
  - (c) Provided that such control measures as above are not necessary, if the process or operation being carried on, is such that, the level of dust created and prevailing is within the permissible limit of exposure specified in the second schedule of the Code and on which measurements are made from time to time as part of air monitoring studies and records maintained.
5. Medical Control Measures:
  - (a) The occupier of every factory where a worker is employed in the processes specified in sub rule clause 1 of paragraph 1, shall ensure that every worker employed is examined by a Medical Officer 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 ILO Radiographs in case of suspected 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 a Medical Officer or tested and examined by a Medical Officer outside as insisted by the Occupier and advised by an Inspector-cum- Facilitator.
- (b) Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every twelve months. Such re-examination shall, wherever the Medical Officer considers appropriate, include all the tests as specified in sub-paragraph (1) above except the chest X-ray which shall be analysed by a radiologist specialized or trained in the field of analysing it with reference to ILO Radiograph specimens on Pneumoconiosis and chest X-ray in such suspected cases shall be carried out at least once in 3 years.
  - (c) Every worker employed in any of the aforesaid processes from the date on which the schedule has come into force, shall be radiologically examined by a qualified Radiologist at the cost of the occupier. The report of such X-ray shall be submitted to the Factory Medical Officer/ Medical Officer/Chief Inspector-cum-Facilitator within three months of the said date.
  - (d) If at any time the Factory Medical Officer/Medical Officer 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, then he/she shall make a record of his findings in the said Certificate and the Health Register. The entry of his findings shall contain the period for which he/she reckons the said person unfit for work in the said process/ processes. The worker so removed from the process shall be provided with alternate placement facilities in the factory on job rotation basis, unless he/she is fully incapacitated in the opinion of the Medical Officer and in that case, the person affected shall be suitably rehabilitated and compensated.
  - (e) No person who has been found unfit to work as stated in sub-paragraph (4) above shall be re-employed or permitted to work in the said processes unless the Medical Officer, after further examination, again certifies him fit for employment in those processes.
  - (f) A worker already in employment and declared unfit by the Factory Medical Officer/Medical Officer shall not be allowed to work on any of the processes specified in clause I of paragraph 1, unless he/she has been examined again using chest X-ray by a qualified Radiologist, at the cost of the occupier and certified to be fit to work on the said processes again.
  - (g) For the purpose of medical supervision by the Factory Medical Officer/Medical Officer, a room in the factory premises shall be maintained, properly cleaned, adequately lighted/ ventilated and equipped with screen, table and with office stationery, chairs and other facilities and other equipment /instruments including X-ray analysing arrangements for radiological examinations and such other equipment as may be prescribed by the Chief Inspector-cum-Facilitator from time to time shall be provided. The Factory Medical Officer so appointed shall perform the following duties,-
    - (i) Maintain health register;
    - (ii) Undertake medical supervision and examination of workers employed in the factory;
    - (iii) Look after the well-being and rehabilitation of sick, injured or affected workers;
    - (iv) Carry out inspection of work rooms where dangerous operations are carried out and advise the management of the measures to be adopted for the protection of health of the workers employed therein;
    - (v) Educate the workers of the health hazards involved and motivate them to wear proper personal protective equipment at workplace.
  - (h) The health records of the workers exposed to silicosis, shall be kept up for a minimum period of 40 years from the beginning of the employment or for 15 years after retirement or cessation of the employment, whichever is later and shall be accessible to workers concerned or to their authorized representatives.

- (i) For the record of medical examinations and appropriate tests carried out by the said Factory Medical Officer, a certificate of fitness and health shall be maintained in separate register approved by the Chief Inspector-cum-Facilitator, and shall be kept readily available for Inspection by the Inspector-cum-Facilitator on demand.
6. Administrative control Measures
- (a) Work place/Environment Monitoring: The Occupier shall ensure that work place and environment monitoring are performed to determine the magnitude of exposure and evaluate the engineering controls, respiratory protections, work practices and the need for medical surveillance and take corrective control measures as and when needed.
    - (i) Exposure/concentration measurements shall be made in close proximity of the employee's actual breathing zone;
    - (ii) Total sampling time shall be at least 7hours;
    - (iii) Work place and environment monitoring shall be repeated quarterly;
    - (iv) The occupier shall make available the report of dust sampling to the nearby public on demand.
  - (b) Training/Awareness: Workers shall be trained in the following:
    - (i) Health effects of free silica dust exposure;
    - (ii) Operations and materials that produce free silica dust hazards;
    - (iii) Engineering controls and way of work controls that reduce dust concentrations;
    - (iv) The importance of good housekeeping and cleanliness;
    - (v) Proper use of personal protective equipment such as respirators, etc;
    - (vi) Personal hygiene practices to reduce exposure;
  - (c) House Keeping: Maintenance of floors:
    - (i) All floors or places where fine dust is likely to settle and whereon any person has to work or pass occasionally shall be made of impervious material and maintained in such condition that it can be thoroughly cleaned by any wet method or any other method which would prevent dust from being airborne in the process and shall be done at least once during each shift.
    - (ii) For removing dust, dry sweeping or compressed air shall not be used but wet methods or vacuum system with High Efficiency Particulate Air (HEPA) filter shall be used.
    - (iii) Dust settled over-head, over a period of time, should be removed using any wet method before it becomes air borne again due to vibration, random air currents etc.
  - (d) Change room and washing facilities:
    - (i) Washing and bathing facilities shall be conveniently located sufficiently away from toilets and easily accessible to the workers,
    - (ii) Cloak room with individual lockers shall be provided for employees to store cleaned clothing;
    - (iii) Workers shall take bath and change the clothing, before they leave the worksite;
    - (iv) Clothing worn during work shall not be cleaned by blowing or shaking;
    - (v) Eateries/lunch areas shall be located away from exposed areas.
  - (e) Display of Notices:-
    - (i) Warning signs/Posters shall be displayed conspicuously in a prominent place, visited by majority of the workers;
    - (ii) The warning signs/poster shall list the hazards and the precautions to be taken;
    - (iii) The notices shall be in Malayalam as well as in the language understood by the majority of the workers;
  - (f) Personal Protective Equipment: - The occupier of every factory to which this schedule apply shall provide the following Personal Protective Equipment (PPEs) as per relevant National Standards or International Standards and as applicable to a particular work place.

- (i) Dust Respirator or
  - (ii) High Efficiency particulate Air (HEPA) filter respirator or fume respirator or
  - (iii) High Efficiency Particulate Air (HEPA) filter respirator with full face piece or
  - (iv) Self-contained breathing apparatus (SCBA) or
  - (v) Active air respirator with a full-face piece, helmet or hood or
  - (vi) Self-contained breathing apparatus (SCBA) with full face piece or
  - (vii) Powered air purifying respirator with a High Efficiency Particulate Air (HEPA) filter.
7. Prohibition of Young Persons: No young person shall be employed or permitted to work in any of the operations involving manipulation of stones containing silica or at any place where such operations are carried out.
8. Exemptions:
- (a) If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or the lesser frequency of the processes carried on or for any other genuine reason, may relax all or any of the provisions of this schedule necessary for protection of the workers, by a certificate in writing, which he/she may in his discretion revoke at any time and exempt any factory from all or any of such provisions subject to such conditions, as he/she may think fit and specify therein.
  - (b) The notification of Silicosis and free silica related occupational diseases shall be strictly notified by the Factory Medical Officer/ Medical Officer.

#### SCHEDULE – XIV

(See rule 84)

#### HANDLING AND PROCESSING OF ASBESTOS, MANUFACTURE OF ANY ARTICLE OUT OF ASBESTOS AND ANY OTHER PROCESS OF MANUFACTURE WHEREIN ASBESTOS IS USED IN ANY FORM.

1. Application:
- 1) This schedule shall apply to all manufacturing process as defined under of the Code, carried on in a factory involving exposure of workers to asbestos and/or exposure of workers to product containing Asbestos.
  - 2) The Government may, at any time, for the purpose of giving effect to any scientifically validated evidence for a particular disease or cause made out of any research and development by specialized institutions or experts in the field, notify in the Official Gazette and make suitable changes in the said Schedule.
  - 3) The provisions of this schedule shall apply to all workers exposed to asbestos in the factory and it shall be the responsibility of the occupier of the factory to comply with the provisions of the schedule in true spirit of it and in full;
  - 4)
    - (a) The occupier of the factory wherein asbestos or substances containing asbestos are in use, shall modify, evolve and adopt newer work procedures and practices generated out of any scientific research and technological updates and present it for approval by the Chief Inspector-cum-Facilitator and follow such approved procedures thereafter;
    - (b) Notwithstanding anything contained in sub-paragraph (1) above use of asbestos is prohibited in the manufacturing process as notified by the Government in this behalf;
      - (i) Spraying of all forms of asbestos is prohibited in a factory;
      - (ii) The prohibition in respect of spraying of asbestos referred to in sub- para (i) may be exempted by the Chief Inspector-cum-Facilitator if the Occupier represents that such spraying is inevitable owing to the specific nature of the product and that he/she had taken adequate measures for ensuring the safety and health of workers to the satisfaction of the Chief Inspector-cum-Facilitator.

2. Definitions: For the purpose of this Schedule,-
  - 1) "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;
  - 2) "Asbestos textiles" means yarn or clothes composed of asbestos or asbestos mixed with any other materials;
  - 3) "approved" means approved for the time being in writing by the Chief Inspector-cum-Facilitator;
  - 4) "Breathing apparatus" means a helmet or face piece with necessary air connection by means of which a person using it breath air, free of dust, or any other approved apparatus of the same kind used for the same purpose;
  - 5) "Efficient exhaust draught" means a localized ventilation by mechanical means for removal of dust so as to prevent dust from escaping into any place where work is being carried on. No draught shall be deemed to be efficient that fails to control dust produced at the point where such dust originates;
  - 6) "preparing" means crushing, disintegrating and any other processes in between or incidental to the opening of asbestos;
  - 7) "Protective clothing" means overalls and head covering, which (in either case) when worn protect the worker from harmful asbestos dust;
  - 8) "Asbestos dust" means airborne particles of asbestos or settled particles of asbestos that may become airborne in the factory;
  - 9) "Airborne asbestos dust", for the purposes of measurement, means dust particles measured by gravimetric assessment or other equivalent method;
  - 10) "Respirable asbestos fibres" means asbestos fibres having diameter of less than 3 micro metre and a length to diameter ratio greater than 3:1;
  - 11) "Exposure to asbestos" means exposure to airborne respirable asbestos fibres or asbestos dust; whether originating from asbestos or from asbestoses minerals, materials or products containing asbestos in the factory.
3. Demolition of plants or Structures made of Asbestos: No person or firm shall carry out any demolition of plants or structures containing asbestos-insulation-material or remove asbestoses material from building or structures from which asbestos is likely to become air-borne, unless recognized and duly empowered by the Chief Inspector-cum-Facilitator of Factories 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 they are equipped with efficient exhaust draught
5. Exhaust draught:
  - 1) An effective exhaust draught shall be provided and maintained to control dust from the following processes/machines and structures or fixtures as per the relevant National Standards-
    - (a) Machines used in the manufacture and conveying, 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 cutting, 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 passed in between.

- (d) Work-benches for asbestos waste sorting or for other manipulation or where asbestos is handled manually.
  - (e) Workplaces at which the filling or emptying of sacks, shipments or other Portable containers or weighing or other process incidental thereto are carried on manually;
  - (f) Sack cleaning machines;
  - (g) Mixing and blending of asbestos by hand; and
  - (h) Any other process in which dust is given off into the work environment.
- 2) Exhaust ventilation equipment provided in accordance with sub-paragraph (1) above shall, while any work of maintenance or repair of the machinery, apparatus or other plant or equipment for which it is provided is being carried on, be provided an exhaust draught which prevents the entry of asbestos dust into the air of any workplace.
  - 3) Arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air of any workroom.
  - 4) The asbestos bearing dust removed from any workroom by the exhaust system shall be collected in suitable receptacles or filter bags and shall be isolated from all work areas.
    - i. Testing and examination of ventilating system:
6. All ventilating systems used for the purpose of extracting or suppressing dust as required by this schedule shall be as per the relevant International/Indian Standards, kept 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 with such examinations or test shall be rectified forthwith.
  7. 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 made available for inspection on demand by an Inspector-cum-Facilitator.
    - 1) Segregation in case of certain process:
    - 2) Mixing or blending of asbestos by hand, or making or repairing of insulating mattresses composed wholly or partly of asbestos shall not be carried on in any room in which some other work is done.
    - 3) Storage and distribution of loose asbestos: All loose asbestos shall, while not in use, be kept in suitable closed receptacles capable of preventing the escape of asbestos dust there from. Such asbestos shall not be distributed within a factory except in closed receptacles or in a totally enclosed conveyance system.
    - 4) Asbestos sacks:
      - (a) 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.
      - (b) A sack in which asbestos has been kept shall not be cleaned by beating with hand. This shall be done with a machine, complying with requirements of an exhaust draught system detailed under paragraph 5.
      - (c) Asbestos sacks or receptacles which contain asbestos shall be disposed of in a safe manner.
    - 5) Maintenance of floors and workplaces:
      - (a) In every room in which any of the requirements of this schedule apply-
        - (i) The floors, work-benches, machinery and plant shall be kept in a clean state and free from asbestos debris. Suitable arrangements shall be made for the storage of asbestos not immediately meant for use; and
        - (ii) The floors shall be kept free from any materials, plant or other articles not immediately required for the work carried on in the room, that would obstruct the proper cleaning of the floor.

- (b) The cleaning as mentioned in sub-rule (1) shall in 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 escape nor discharge into the air of any workplace.
- (c) When the cleaning is done by any method other than that mentioned in sub-paragraph (2), the persons doing cleaning work, and any other person employed in that room shall be provided with respiratory protective equipment and protective clothing.
- (d) The vacuum cleaning equipment used in accordance with provisions of sub-paragraph (2), shall be properly maintained and after each cleaning kept in a clean state free from asbestos waste and dust.
- (e) 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 by proper means avoiding direct handling.
- (f)
  - (i) The occupier shall as far as possible, better replace asbestos or certain types of asbestos or products containing asbestos with other alternative materials or products or shall use alternative technology, scientifically validated as harmless or less harmful, wherever or whichever possible.
  - (ii) The occupier should take all the measures to prevent or control the release of asbestos in to the air and ensure that the exposure limits or other exposure criteria are complied with and reduce exposure to as low to the manner
  - (iii) Breathing Apparatus, Personnel Protective Equipment and Clothing:
    - (a) The occupier of every factory to which this schedule applies shall provide the workers with personnel protective equipment such as hand gloves, shoes, helmets, goggles, earplug, aprons, safety belt, overall suits, etc. as per the relevant National or International Standards as required. The breathing apparatus and appropriate clothing as per the relevant National or International standards shall be decided in consultation with the workers representatives and the same shall be maintained in good condition for use with immediate replacements as and when needed for use:
      - (i) in chambers containing loose asbestos;
      - (ii) in cleaning, dust settling or filtering chambers of apparatus;
      - (iii) in cleaning the cylinders, including the defer cylinders, or other parts of a carding machine by means of hand-stickles;
      - (iv) in filling, beating, or levelling in the manufacture or repair of insulating mattresses; and 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.
    - (b) Suitable accommodation in easily accessible location shall be provided for the use of workers for wearing breathing apparatus and protective clothing provided in accordance with this rule and for the storage of such apparatus and clothing when not in use.
    - (c) All breathing apparatus and protective clothing that are not in use shall be stored in the accommodation provided in accordance with sub-paragraph (2) above.
    - (d) 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 of the equipment intact while in use.

- (e) All breathing apparatus shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.
- (f) A record of the cleaning, maintenance and condition of the breathing apparatus shall be maintained in a register and shall be readily made available for inspection by an Inspector-cum-Facilitator.
- (g) No person shall be employed to perform any work specified in sub- paragraph (1) above for which breathing apparatus is to be compulsorily provided unless he/she has been fully instructed and is aware of the proper use of that equipment.
- (h) No breathing apparatus which has been worn by a person shall be worn by another person unless it has been thoroughly cleaned and disinfected and the person has been instructed of the proper use of the equipment.
- (i) No worker shall take home any work clothing or special protective clothing or personal protective equipment provided to him.
- (g) Separate accommodation for personal clothing: A separate accommodation shall be provided in a conveniently accessible position for all persons employed in operations to which this schedule applies for storing of personal clothing. This should be separated from the accommodation provided under sub-paragraph (2) of paragraph 10 to 11 prevent contamination of personal clothing.
- (h) 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 under the schedule, adequate washing and bathing places having sufficient supply of water ensuring privacy at the rate of one location for every 15 persons employed.
  - (ii) The washing places shall have stand-pipes positioned 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 shall be provided:
  - (v) Provided that such towels shall be supplied for each worker if ordered by the Inspector-cum-Facilitator.
  - (vi) Sufficient supply of soap and brushes shall be provided.
- (i) Mess Room:

There shall be provided and maintained for the use of all workers employed in the factory covered by this schedule, remaining on the premises during the rest intervals, a suitable mess room which shall be furnished with sufficient tables and benches with backrest,
- (j) Prohibition of employment of young persons:- No young person shall be employed in any of the process covered by this schedule.
- (k) 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 placed in the plant prohibiting smoking in such areas.
- (l) Pictorial Cautionary Notices: Cautionary notices in the form specified in appendix and printed in the language easily understood by majority of workers shall be displayed in prominent places in the workers where asbestos or substances containing asbestos are manufactured, handled or used.
- (m) Air monitoring: To ensure the effectiveness of control measures in continuous or repetitive processes, the monitoring of asbestos fibres in air shall be carried out and monitored at least once in every shift. Individual examination of workers shall be carried out when they leave after every shift and the result so obtained shall be entered in a register and ensure that

- (i) there is not any substantial change in the workplace conditions harmful to the workers;
  - (ii) the results of last two consecutive measurements have not exceeded half the value of the relevant control limit; and
  - (iii) all such factories shall adopt membrane filter test as per the relevant National Standards without fail.
- (n) Medical Control Measures:
- (i) The occupier of every factory wherein a worker is employed in the processes specified in clause I of paragraph 1 shall ensure that every worker employed be examined by a Medical Officer as advised by the Inspector-cum-Facilitator within 15 days of his first employment. Such medical examination shall include sputum examination for asbestos, toxicity, followed with pulmonary function test and chest X Ray – Posterior – Anterior (PA) and, the X-Rays shall 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 Medical Officer again.
  - (ii) Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every twelve months. Such re- examination shall, wherever the Medical Officer considers appropriate, include all the tests as specified in sub-paragraph (1) above except chest X-ray which shall be read by a radiologist specialized/trained in the field of reading ILO Radiographs on Pneumoconiosis and in suspected cases the chest X-ray which shall be repeated at least once in 3 years.
  - (iii) Every worker employed in any of the aforesaid processes shall be radiologically examined by a qualified Radiologist at the cost of the occupier. The report of such X-ray shall be placed before the Medical Officer/Chief Inspector-cum-Facilitator within three months.
  - (iv) If at any time the Factory Medical Officer/Medical Officer 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/she shall make a record of his findings in Certificate and the health register. The entry of his findings in these documents shall also include the period for which he/she considers the said person unfit for work in such processes. The person so suspended from the process shall be provided with alternate placement facilities unless he/she fully is incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.
  - (v) No person who has been found unfit to work as said in sub-paragraph (4) above shall be re-employed or permitted to work in the said processes unless the Medical Officer, after further examination, again certifies him fit for employment in those processes.
  - (vi) A worker already in employment and declared unfit by the Factory Medical Officer/Medical Officer shall not be allowed to work on any of the processes specified in clause I of the paragraph I, unless he/she has been examined again along with X-ray by a qualified Radiologist, at the cost of the occupier and certified to be fit to work in the said processes again.
  - (vii) For conducting medical examination, the Factory Medical Officer or Medical Officer appointed by the Occupier shall be provided an exclusive room in the factory premises maintained properly cleaned, adequately lighted ventilated and furnished with a screen, a table with office stationery, chairs and other

facilities and other instruments including X-ray arrangements for such examinations and such other equipment as may be prescribed by the Chief Inspector-cum-Facilitator for time to time. The Factory Medical Officer so appointed shall perform the following duties, namely:-

- (a) undertake medical supervision of persons employed in the factory;
  - (b) look after health and rehabilitation of sick, injured or affected workers;
  - (c) carry out inspection of work rooms where dangerous operations are being carried out and advise the management of the measures to be adopted for the protection of health of the workers employed therein.
  - (d) maintain a health register of workers in the prescribed format
8. The Health Records of the workers exposed to asbestos, shall be kept up to a minimum period of 40 years from the beginning of the employment or 15 years after retirement or cessation of the employment, whichever is later and shall be accessible to workers concerned or their representatives.
9. For the record of medical examinations and appropriate test carried out by the Factory Medical Officer, a certificate of fitness and health register shall be maintained separately approved by the Chief Inspector-cum-Facilitator of Factories, and shall be kept readily available for inspection by the Inspector-cum-Facilitator on demand.
- (a) Exemptions:-
- (i) If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or infrequent nature 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/she 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/she may specify therein.
  - (ii) The Chief Inspector-cum-Facilitator may permit temporary derogation, through a notification in an Official Gazette, from the measures prescribed in this schedule under conditions and within limits of time determined after consultation with the representative organizations of employers and workers concerned.

#### PICTORIAL CAUTIONARY NOTICE DANGER

1. Asbestos/asbestos dust which is used, handled or manipulated in the factory is highly 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 equipment 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. The area shall be maintained cleanly.
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 whilst disposed of by an appropriate method.
10. All protective equipment and clothing shall be de-dusted by vacuum cleaning and stored in appropriate place provided for the purpose.

11. Entry of unauthorized persons or authorized persons without proper protective equipment is prohibited.
12. Report for the prescribed medical examinations and tests regularly for your own health.
13. Report to your doctor immediately if you have persistent breathlessness, chest tightness, or cough.

## Schedule - XV

(See rule 84)

## Handling or Manipulation of Corrosive Substances

1. Definitions – For the purpose of this schedule-  
“Corrosive operation” means an operation of manufacturing, storing, handing, processing, packing or using any corrosive substance in a factory; and  
“Corrosive substance” includes Sulphuric acid, nitric acid, hydrochloric acid, hydrofluoric acid, carboic acid, phosphoric liquid chlorine, liquid bromine, ammonia, sodium hydroxide and potassium hydroxide and a mixture thereof, and any other substance which the State Government by notification in the Official Gazette specify to be a corrosive substance.
2. Flooring- The floor of every workroom of a factory in which corrosive operation is carried on shall be made of impervious, corrosion and fire-resistant material and shall be so constructed as to prevent collection of any corrosive substance. The surface of such flooring shall be smooth and cleaned as often as necessary and maintained in a sound condition.
3. Protective equipment
  - (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 wherever 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 provide as close to the place of such operation as possible a source of clean water at a height of 210 cm from a pipe of clean water of 125 cm diameter and fitted with quick acting valve so that in the 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 cm, 120 cm and 60 cm respectively, or such dimensions, as are approved by the Chief Inspector-cum-Facilitator shall be provided as the sources of clean water.
5. Cautionary Notice – A cautionary notice in the following Form and printed in the language which majority of the workers employed understand, shall be displayed prominently close to the place where a corrosive operation is carried out and where it can be easily and conveniently read by the workers. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice so displayed.

## CAUTIONARY NOTICE

Danger

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

6. Transport
  - (a) Corrosive substances shall not be filled, moved or carried except in containers 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.
  - (b) 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 height below the waist line unless a suitable rubber wheeled truck is used for the purpose.
  - (c) Containers for corrosive substances shall be plainly labelled.
7. Devices for handling corrosives:
  - (a) Titrating, lifting or pumping arrangements shall be used for the emptying jars, carboys and other containers of corrosives.
  - (b) 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.-
  - (a) In cleaning out or removing residues from stills or other large chambers used for holding any corrosive substances, suitable implements made of wood or other material shall be used to prevent production of arseniuretted hydrogen (arsine).
  - (b) 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 precaution required under section 36 of the Code shall be taken to ensure the worker's safety.
  - (c) 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-
  - (a) 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.
  - (b) Pumping or filling overhead tanks, receptacles, vats or other containers for storing corrosive substances shall be so arranged that there is no possibility of any corrosive substance overflowing and causing injury to any person.
  - (c) 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 type fire extinguishers or other firefighting equipment, depending on the nature of chemical 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 an application made by the Manager, the Chief Inspector-cum-Facilitator 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 person employed therein, he/she may by a certificate in writing which he/she may at any time revoke, exempt to the factory from such of the provisions and subject to such condition as he/she may specify therein.

Schedule - XVI  
(See rule 84)  
Processing of Cashew nut

1. Application- This schedule shall apply to all factories in which roasting, scrubbing and shelling of cashew nuts or extracting oil from cashew nuts or cashew nut shells are carried on.
2. Prohibition of employment of women and young persons- No woman or young person shall be employed in any of the processes specified in paragraph 1 except in shelling of roasted cashew nuts.
3. Protective clothing and equipment- The occupier shall provide and maintain for the use of all persons employed in roasting and scrubbing of cashew nuts or extracting oil from cashew nuts or cashew nuts shells-
  - (a) 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 of footwear to afford protection to feet and legs against cashew nut oil; and for the workers employed in cashew nut shelling, either-
  - (d) a protective ointment containing 10% of shellac, 55% of alcohol, 10% of sodium perborate, 5% of carbitol and 20% talc; or
  - (e) sufficient quantity of kaolin and coconut oil; and
  - (f) any other material or equipment- which the Chief Inspector-cum-Facilitator 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 its use, maintenance and cleanliness.
5. Disposal of shells, ashes or oil of cashew nut
  - (a) Shells, ashes or oil of cashew nut 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 of shells and ashes and to closed containers kept in a separate room in the case of oil.
  - (b) No worker shall be allowed to handle shells or oil of cashew nuts 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 cashew nut oil in any workroom shall be washed with soap and cleaned immediately.
7. Seating accommodations- Workers engaged in shelling of cashew nuts shall be provided with adequate seats of work benches which shall be cleaned daily.
8. Messroom-
  - (a) There shall be provided and maintained for the use of all persons employed in process specified in paragraph 1, a suitable restroom furnished with sufficient tables and chairs or benches.
  - (b) Separate lockers shall be provided where food, etc, shall be stored by workers before it is consumed in the restroom.
9. Food, drinks, etc. prohibited in work room- 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 any such room during intervals for meals or rest.
10. Washing facilities- Where roasting, scrubbing and shelling of cashew nuts or extracting oil from cashew nuts or cashew nuts shells is carried on, there shall be provided and maintained in a clean safe 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 map art.

11. 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.
12. Smoke or gas produced by roasting cashew nuts- Where smoke or gas produced in the operation of roasting, provision shall be made for removing the smoke or gas through a chimney of sufficient height (minimum 15 m from ground level) 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.
13. 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.
14. Medical facilities and records of examinations and tests-
  - (a) The occupier of every factory to which the schedule applies, shall–
    - (i) employ a qualified Factory Medical Officer for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector-cum-Facilitator of Factories; and
    - (ii) provided to the Factory Medical Officer all the necessary facilities for the purpose referred to in clause (a)
  - (b) The said Factory Medical Officer shall inspect daily the hands and feet of all the persons employed in the process specified in paragraph 1.
  - (c) The record of such examinations carried out by the Factory Medical Officer shall be maintained in a separate register approved by the Chief Inspector-cum-Facilitator of Factories, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - (d) The first aid box maintained shall also contain Burrough solution (1:20) and aqueous solution of tannic acid (10%) for treatment of cases of dermatitis.
15. Medical examinations by Medical Officer-
  - (a) Every worker employed in the processes specified in paragraph 1 shall be examined by a Medical Officer 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 Medical Officer.
  - (b) Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every three calendar months. Such examinations shall, wherever the Medical Officer considers appropriate include asking test for dermatitis.
  - (c) The Medical Officer after examining a worker, shall issue a Certificate of fitness in FORM VI. 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 Medical Officer in a health register in Form-V.
  - (d) The Certificate of Fitness and health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - (e) If at any time the Medical Officer 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 workers he/she shall made a record of the 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/she 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/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.

- (f) No person who has been found unfit to work as laid in sub paragraph (5) shall be re- employed or permitted to work in the said processes unless the Medical Officer, after further examination, again certifies him fit for employment in those processes.
16. Exemption – The Chief Inspector-cum-Facilitator of Factories may grant exemptions from the operation of any of these where he/she is satisfied that their observance is not necessary for safeguarding the health of the workers.

#### SCHEDULE- XVII

(See rule 84)

Compression of oxygen and hydrogen produced by electrolysis of water.

1. Location of Electrolyser plant. – The room in which Electrolyser plant is installed shall be separate from plant for storing and compressing oxygen and hydrogen and also the electric generator room.
2. Testing of purity-
  - (a) The purity of oxygen and hydrogen shall be tested by a competent person at least once in every shift at the first posts:
    - (i) in the electrolysis room;
    - (ii) at the gasholder inlet; and
    - (iii) at the suction end of the compressor.
  - (b) The purity figures shall be entered in a register and signed by the persons carrying out such test:
 

Provided, however, that if the Electrolyser plant is fitted with automatic recorder of purity of oxygen and hydrogen with alarm lights, it shall be sufficient if the purity of gases is tested at the suction end of the compressor only.
  - (c) 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.
  - (d) Limit switch for gasholder – The bell of any gasholder shall not be permitted to go within 30 centimetres of its lowest position when empty and a limit switch shall be fitted to the gasholder in which a manner as to switch off the compressor motor when the limit is reached.
  - (e) Provision of negative pressure switch – In addition to the limit switch in the gasholder-a sensitive negative pressure switch shall be provided in or adjacent to the suction main for hydrogen close to the gasholder and between gasholder and the hydrogen compressor to switch off the compressor motor in the event of the gasholder being emptied to the extent as to cause vacuum.
  - (f) Purity of caustic soda – The water and caustic soda used for making limit shall be chemically pure within pharmaceutical limits.
  - (g) 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 to 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 at the electric generator terminals.
  - (h) Coloring of gas pipes – Oxygen and hydrogen gas pipes shall be painted with distinguishing colors 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.
  - (i) Use of flame proof fitting – All electric wiring and apparatus in the electrolyser room shall be of flameproof construction or enclosed in flameproof fitting and no naked light or flame

- shall be allowed to be taken either in the electrolyser room or where compressor and filling of the gases is carried on and such warning notices shall be exhibited in prominent places.
- (j) Prohibition of hot work – No part of the electrolyser plant and the gasholders and compressor shall be subjected to welding, brazing, soldering or cutting until steps have been taken to remove any explosive substance from that part and render the part safe for such operations and after the completion of such operations no explosive substance shall be allowed to enter that part until the metal has cooled sufficiently to prevent risk of explosion.
  - (k) Repair, Preventive Maintenance, etc. to be done under supervision – No work or operation, repair or maintenance shall be undertaken except under the direct supervision of a person who, by his training, experience and knowledge of the necessary precautions against risk of explosion is competent to supervise such work. No Electric generator after erection or repair shall be switched on to 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 by the polarity as required by paragraph 7.
  - (l) Checking of plant – Every part of the electrolyser plant and the gasholders and compressor shall have a regular schedule of overhaul and checking and every defect noticed shall be rectified forthwith.

#### SCHEDULE - XVIII

(See rule 84)

#### Process of Extracting Oils and Fats from Vegetables and Animals Sources in Solvent Extraction Plants

1. Definitions – For the purpose of the 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 used for the recovery of vegetable oils;
  - (c) “Flameproof enclosure” as applied to electrical machinery or apparatus means an enclosure that will withstand when covers or other access doors are properly secured and 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.
  - (e) Provided that graduate in Mechanical engineering or Chemical technology with specialized knowledge of oils and fats and with a minimum experience of 5 years in a solvent extraction plant shall also be considered to be a competent person:
  - (f) Provided further that the State Government may accept any other qualification, if in its opinion they are equivalent to the qualifications aforesaid
2. Location and layout
  - (a) No solvent extraction plant shall be permitted to be constructed or extended to within a distance of 30 from the nearest residential locality.
  - (b) A 1.5m high continuous wire fencing shall be provided around the solvent extraction
  - (c) plant up to a minimum distance of 15 m from the plant.
  - (d) No person shall be allowed to carry any matches or an open flame of fire inside the area bound by the fencing.

- (e) Boiler houses and other buildings where open flame processes are carried on shall be located at least 30 m away from the solvent extraction plant.
  - (f) If godown and preparatory process are at a distance from of less than 30 m from the solvent extraction plant, these shall be at least 15 m distant from the plant, and a continuous barrier wall of non-combustible material 1.5 m high shall be erected at a distance of not less than 15 m from the solvent extraction plant so that it extends to at least 30 m of vapour travel around its end from the plant to the possible sources of ignition.
3. Electrical Installations
    - (a) All electrical motors and wiring and other electrical equipment installed or housed in solvent extraction plant shall be of flame-proof construction.
    - (b) 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 energized shall be properly bounded 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 m distance from solvent extraction plant. For this purpose, "No smoking" signs shall be permanently be displayed in the area.
  5. Precautions against friction
    - (a) All tools and equipment including ladders, chains and other lifting tackle required to be used in solvent extraction plants shall be of non-sparking type.
    - (b) 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.
    - (c) 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 statical ectrical charge, or wearing footwear which is likely to cause sparks by friction.
  6. Firefighting apparatus
    - (a) Adequate number of portable fire extinguishers suitable for use against flammable liquid fires shall be provided in the solvent extraction plant.
    - (b) An automatic water spray sprinkler system on a wet pipe 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. Precaution 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 conveyor through a hopper and a magnetic separator shall be provided to remove any pieces of iron during its transfer.
  9. Venting-
    - (a) Tanks containing solvents shall be protected with emergency venting to relieve excessive internal pressure in the event of fire.
    - (b) All emergency relief vents shall terminate at least 6 m above the ground and be so located that vapor 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 m 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 changer per hour.

12. Housekeeping-
  - (a) Solvent shall not be stored in an area covered by solvent extraction plant except in small quantities which shall be stored in approved safety cans.
  - (b) Waste material such as oily rags other waste and absorbents used to wipe off solvents and paints and oil shall be deposited in approved containers and removed from the premises at least once a day.
  - (c) Space within the solvent extraction plant and within 15 m 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-
  - (a) 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.
  - (b) No repairs shall be carried out to the machinery or plant except under the direct supervision of the competent person.
  - (c) Facility shall be provided for purging the plant with inert gas or steam before opening for cleaning or repair 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 person 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 person – No woman or young person shall be employed in the solvent extraction plant.
16. Vapor detection – A suitable type of flame-proof and portable combustible gas indicator shall be provided and maintained in good working order and a schedule of routing 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. Exception – 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 person, all or any of the provision 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/she 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/she may specify therein.

#### SCHEDULE - XIX

(See rule 84)

#### Manufacture or manipulation of manganese and its compounds

1. Application – This schedule shall apply to every factory in which or any part of which any manganese process is carried on.
2. Definitions – For the purposes of this schedule-
  - (a) "Manganese process" means processing, manufacture or manipulation of manganese or any compound of manganese or any ore or any mixture containing manganese.
  - (b) "Manipulation" means mixing, blinding, filling, emptying grinding, sieving, drying, packing, sweeping, or otherwise handling of manganese, or a compound of manganese, or any one or any mixture containing manganese; and
  - (c) "Efficient exhaust ventilation" means localized ventilation effected by mechanical means for the removal of dust or fume or mist at its source of origin so as to prevent it from escaping in to 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.
3. Isolation of a process – Every manganese process which may give rise to dust, vapour or mist containing manganese, shall be carried on in a totally enclosed system or otherwise effectively isolated from other processes so that other plants and processes and other parts of the factory and persons employed on other processes may not be affected by the same.
  4. Ventilation of process – No process, in which any dust, vapour or mist containing manganese is generated, shall be carried out except under an efficient exhaust ventilation which shall be applied as near to the point of generation as practicable.
  5. Personal protective equipment
    - (a) The occupier of the factory shall provide and maintain in good and clean condition suitable overalls and head covering and 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.
    - (b) The occupier of the factory shall provide suitable respiratory protective equipment for use by workers 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 condition to be used readily.
    - (c) The occupier shall provide and maintain for the use of all persons employed suitable accommodation for the storage and made adequate arrangements for cleaning and maintenance of personal protective equipment.
  6. Prohibition relating to women and young persons – No pregnant women or young persons shall be employed or permitted to work in any manganese process.
  7. 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.
  8. 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.
  9. Washing facilities – There shall be provided and maintained in a clean state and in good condition for the use of persons employed on manganese process–
    - (a) a wash place under cover with either –
      - (i) a trough with smooth impervious surface fitted with a waste pipe without plug and of sufficient length to allow at least 60 cm 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 cm; or
      - (ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply water; and
    - (b) sufficient supply of soap or other suitable cleaning material and nail brushes and clean towels.
  10. Cloak room– If the Chief Inspector-cum-Facilitator so requires there shall be provided and maintained for the use of persons employed in manganese process a cloak room for clothing put off during working hours with adequate arrangements for drying the clothing.
  11. Cautionary placard and instruction – Cautionary notices in the form specified in appendix and printed in the language of the majority of the workers employed, shall be affixed in prominent places in the factory where they can be easily and conveniently read by the workers and arrangements shall be made of 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 method to protect themselves. The notices shall always be maintained in a legible condition.

12. Medical facilities and record of examination and tests
  - (a) The occupier of every factory to which the schedule applies, shall-
    - (i) employ a qualified Factory Medical Officer for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector-cum-Facilitator of Factories; and
    - (ii) provided to the said Factory Medical Officer all the necessary facilities for the purpose referred to in clause(a)
  - (b) The recorded of medical examination and appropriate tests carried out by the said Factory Medical Officer shall be maintained in a separate register approved by the Chief Inspector-cum-Facilitator of Factories, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
13. Medical examination by Medical Officer.-
  - (a) Every worker employed in any manganese process shall be medically examined by a Medical Officer within 15 days of his first employment. Such examination shall include tests for detection of serum calcium, serum phosphate and manganese in blood and urine and also include steadiness tests and other neuro-muscular co-ordination tests. No worker shall be allowed to work after 15 days of his first employment the factory unless certified fit for such employment by the Medical Officer.
  - (b) Every worker employed in a manganese process shall be re-examined by a Medical Officer at least once in every three calendar months and such examination shall, wherever the Medical Officer considers appropriate, include all the tests in sub paragraph (1)
  - (c) The Medical Officer after examining a worker, shall issue a certificate of fitness in FORM VI. 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 (1) and (2) including the nature and the results of these tests shall also be entered by the Medical Officer in a health register in Form-V.
  - (d) The Certificate of fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - (e) If at any time the Medical Officer is of the opinion that the worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker, he/she 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/she considers that the said person is unfit to work in the said process. The person so suspended from the process shall be provided with alternate placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer in which case the person affected shall be suitably rehabilitated.
  - (f) 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 process unless the Medical Officer after further examination, again certifies him fit for employment in those processes.
14. 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/she may by an order in writing which he/she may at his discretion revoke exempt such factory from all or any of the provisions on such conditions and for such period as he/she may specify in the said order.

CAUTIONARY NOTICE  
Manganese and Manganese Compounds

1. Dust, fumes and mists of manganese and its compound re-toxic when inhaled or when ingested.
2. Do not consume food or drink near the workplace.
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 or likely to be inhaled or respiratory protective equipment provided for the purpose.
  - a) If you got severe headaches, prolonged sleeplessness or abnormal sensation on the body, report to the manager who would make arrangements for your examination and treatment.

SCHEDULE- XX

(See rule 84)

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 pesticides herein after referred to as the said manufacturing process is carried on.
2. Definitions – For the purpose of the schedule–
  - (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 localized mechanical ventilation for removal of smoke, gas, vapour, dust, fume or mist so as to prevent them from escaping into the air of any workroom in which work is carried on. No exhaust draught shall be considered efficient if it fails to remove smoke generated at the point where such gas, fume, dust, vapor or mist originates from the process.
3. Instruction to worker – Every worker on his first employment shall be fully instructed on the properties including dangerous properties of the chemical 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 notice 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 in the said manufacturing process and methods of protection. Such notices shall include brief instructions regarding the periodical clinical test required to be undertaken for protecting health of the workers.
5. Prohibition relating to employment of women or young persons – No pregnant woman or any 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 prohibited- No food, drink, tobacco, pan or supari shall be brought into or consumed by any worker in any work room in which the said manufacturing process is carried out.

7. Protective clothing and protective equipment
  - (a) 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.
  - (b)
    - 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.
  - (c) Protective clothing and equipment shall be worn by the workers supplied with such clothing and equipment.
  - (d) 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.
  - (e) Protective clothing and equipment shall be maintained in good repair;
8. Floors and workbenches
  - (a) Floors in every workroom where dangerous pesticides are manipulated shall be of cement or other impervious material giving a smooth a surface.
  - (b) Floors shall be maintained in good repair, provided with adequate slope leading to drain and thorough washed once a day with hose pipe.
  - (c) 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.
9. Spillage and waste
  - (a) 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 thorough decontamination of such area or articles.
  - (b) 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 least once a week.
  - (c) Suitable deactivating agents, where available, shall be kept in a readily accessible place for use while attending to a spillage.
  - (d) Easy means of access shall be provided to all parts of the plant for cleaning maintenance and repairs.
10. 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.
11. Manual handling
  - (a) A dangerous pesticide shall not be required or allowed to be manipulated by hand except by means of a long-handled scoop.
  - (b) Director contact of any part of the body with dangerous pesticide during its manipulation shall be avoided.
12. Ventilation
  - (a) 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.
  - (b) Unless the process is completely enclosed, the following operations during manipulation of dangerous pesticides shall not be undertaken without an efficient exhaust draught.
    - (i) emptying a container holding a dangerous pesticide
    - (ii) blending a dangerous pesticide;
    - (iii) preparing a liquid or powder formulation containing a dangerous pesticide; and
    - (iv) changing or filling a dangerous pesticide into a container, tank hopper or machine or small sized containers.

- (c) In the event of failure of the exhaust draught provided on the above operation, the said operations shall be stopped forthwith.
- 13. Time allowed for washing
  - (a) 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.
  - (b) Every worker engaged in the manipulation of dangerous pesticides shall have a through wash before consuming any food and also at the end of the day's work.
- 14. Washing and bathing facilities
  - (a) 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.
  - (b) The washing places shall have stand pipes placed at intervals of not less than one meter.
  - (c) Not less than one half of the total number of washing places shall be provided with bathrooms.
  - (d) Sufficient supply of clean towels made of suitable material shall be provided:
  - (e) Sufficient supply of soap and nail brushes shall be provided.
- 15. Cloak room – There shall be provided and maintain for the use of all workers employed in the factory where the said manufacturing process is carried on –
  - (a) a cloakroom for the 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.
- 16. Messroom
  - (a) 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 reaming on the premises during the rest intervals, a suitable mess room which shall be furnished with –
    - (i) sufficient tables and benches with back rest, and
    - (ii) adequate means for warming food
  - (b) The mess room shall be placed under the charge of a responsible person and shall be kept clean.
- 17. Manipulation not be undertaken – Manufacture or manipulation of a pesticides shall not be undertaken in any factory unless a certificate regarding its dangerous nature or otherwise is obtained from the Chief Inspector-cum-Facilitator.
- 18. Medical facilities and records of examinations and tests
  - (a) The occupier of every factory to which the schedule applies, shall–
    - (i) employ a qualified Factory Medical Officer for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector-cum-Facilitator of Factories; and
    - (ii) provide to the said Factory Medical Officer at the necessary facilities for the purpose referred to in clause (a)
  - (b) The record of medical examinations and appropriate tests carried out by the said Factory Medical Officer shall be maintained in a separate register approved by the Chief Inspector-cum-Facilitator of Factories which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- 19. Medical examination by Medical Officer
  - (a) Every worker employed in the process mentioned in paragraph 1 shall be examined by the Medical Officer with 15 days of his first employment. Such examination in respect of halogenated pesticides shall include tests for determination of the chemical in blood and in

- fat tissues, EEG abnormalities and memory tests. In respect of organophosphorus compound, such examinations shall include test for depression of cholinesterase in plasma and red blood cells. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical Officer.
- (b) Every worker employed in the said process shall be re-examined by a Medical Officer at least once in every six calendar months. Such examination shall, wherever, the Medical Officer considers appropriate, include the tests specified in sub-paragraph (1). Further every worker employed in the said processes shall also be examined once in every three months by the Factory Medical Officer.
  - (c) The Medical Officer after examining a worker shall issue a Certificate of Fitness in FORM VI. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results of these tests shall also be entered by the Medical Officer in a health register in FORM-V.
  - (d) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - (e) If at any time the Medical Officer 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/she 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/she considers that the said person is unfit to work in the said process. The person so suspended from the process shall be provided with alternate placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.
  - (f) 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 Medical Officer, 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 he/she shall record in writing all or any of the provisions of this schedule are not necessary for the protection of the workers employed in the factory, he/she may by a certificate in writing exempt such factory, from all or any of the provisions on such condition as he/she may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-Facilitator after recording his reasons therefore.

21.

**CAUTIONARY NOTICE**  
Insecticides and pesticides

1. Chemical 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 many cause poisoning
4. A good wash shall be taken before meals.
5. A good bath shall be taken at the end of the shift.
6. Protective clothing and equipment supplied shall be used while working in this area.
7. Containers of pesticides shall be used for keeping foodstuffs.
8. Spillage of the chemicals on any part of the body or on the floor or work bench 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.

### SCHEDULE - XXI

(See rule 84)

#### Manufacture, handling and usage of benzene and Substances containing benzene

1. Application – This schedule 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 working atmosphere;
  - d) 'Efficient exhaust draught' means localized ventilation effected by mechanical means for the removal of gases, vapors 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, vapors, fumes or dusts originate.
3. Prohibition of substitution-
  - a) Use of benzene and substance containing benzene is prohibited in the following process:
    - (i) manufacture of varnishes, paints and thinners; and
    - (ii) cleaning and degreasing operations.
  - b) Benzene or substances containing benzene shall be used as a 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 a manner which is considered equally safe as if it were carried out in an enclosed system.
  - c) Where suitable substitutes are available, they shall be used instead of benzene or substances containing benzene. This provision, however shall not apply to the following process-
    - (i) production of benzene;
    - (ii) where benzene is used for chemical synthesis.
    - (iii) motor spirits (used as fuel)
  - d) The Chief Inspector-cum-Facilitator may, subject to confirmation of by the State Government permit exemptions from the percentage laid down in sub-paragraph 2(a) and also from the provisions of sub-paragraph (2) of this paragraph temporarily under conditions and within limits of time to be determined after consultation with the employers and workers concerned.
4. Protection against inhalation-
  - a) The process involving the use of benzene or substances containing benzene shall as far as practicable be carried out in an enclosed system.
  - b) Where, however, it is not practicable to carry out the process in an enclosed system the work room 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 work room so that the concentration of benzene in the air does not exceed 10 parts per million by volume or 30 milligrams per cubic metre.

- c) Air analysis for the measurement of concentration of benzene vapour in air shall be carried out every 8 hours or at such intervals as may be directed by the Chief Inspector- cum-Facilitator 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.
  - d) Workers who for special reasons are likely to be exposed to concentration of benzene in the air of the work room exceed the maximum referred to in sub-paragraph (2) 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
- a) Workers who are likely to come into contact with liquid benzene or liquid substance containing benzene shall be provided with suitable gloves, aprons, boots and where necessary vapour tight chemical goggles, made of material not affected by benzene or its vapours.
  - b) The protective wear referred to in sub paragraph (1) shall be maintained in good condition and inspected regularly.
6. Prohibition relating to employment of women and young persons – No woman or young person shall be employed or permitted to work in any work room 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 symbol clearly visible on it and shall also display information on benzene content, warning about toxicity and warning about in flammability of the chemical.
8. Improper use of benzene-
- a) The use of benzene or substances containing benzene by workers for cleaning their hands or their work clothing shall be prohibited.
  - b) Workers shall be instructed on the possible dangers arising from such misuse.
9. Prohibition of consuming food etc. in workroom – No worker shall be allowed to store or consume food or drink in the workroom in which benzene or substances containing benzene or manufactured, handled or used. Smoking and chewing tobacco or pan shall be prohibited in such workrooms.
10. Instructions as regard risks – Every worker on his first employment shall be fully instructed on the properties of benzene of substances containing benzene which he/she 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 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 of substances containing benzene are manufactured, handled or used.
12. Washing facilities, cloak room and mess room– In factories in which benzene or substance containing benzene are manufactured, handled or used, the occupier shall provide and maintain in 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) at cloak room with the 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 examination and tests –
  - a) The occupier of every factory to which this schedule applies, shall–
    - (i) employ a qualified Factory Medical Officer for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector-cum-Facilitator of Factories; and
    - (ii) provide to the said Factory Medical Officer all the necessary facilities for the purpose referred to in clause (a)
  - b) The record of medical examinations and appropriate tests carried out by the said Factory Medical Officer shall be maintained in a separate register approved by the Chief Inspector-cum-Facilitator of Factories, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
14. Medical Examination by the Medical Officer
  - a) Every worker employed in processes mentioned in paragraph 1, shall be examined by a Medical Officer within 15 days of his first employment, such examination shall include tests for detection of phenol in urine and determination of urinary sulphide ratio and C.N.S. and haematological tests. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical Officer.
  - b) Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every twelve calendar months and such examination shall, wherever the Medical Officer considers appropriate; include all the tests specified in sub-paragraph (1). Further, every worker shall also be examined once in every three calendar months by the factory Medical Officer.
  - c) The Medical Officer after examining, a worker, shall issue a certificate of fitness in FORM-VI. 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 (10 and 20), including the nature and the results of these tests shall also be entered by the Medical Officer in a health register in FORM-V.
  - d) The certificate of fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - e) If at any time the Medical Officer 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/she 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/she considers that the said person is unfit to work in the said processes. The person so suspended for the process shall be provided with alternate placement facilities unless he/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.
  - f) 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 Medical Officer, after further examination, again certifies him fit for employment in those processes.

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 and 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 excitation 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 place where benzene vapours represent 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 vested with benzene
  - b) 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/she arrives, do the following:  
If the exposed person is conscious- Move him to fresh air in open  
Lay down without a pillow and keep him quiet and warm.
    - (i) If the exposed person is unconscious-
      - (a) Lay him down preferably on the left side with head low.
    - (ii) Remove any false teeth, chewing-gum, tobacco or the foreign objects which may be in his mouth.
      - a) Provide him artificial respiration in case difficulty in being experienced in breathing.
      - b) In case of shallow breathing or cyanosis (blueness of skin lips, ears, finger nail beds) he/she should be provided with medical oxygen or oxygen carbon dioxide mixture. If needed, he/she should be given artificial respiration. Oxygen should be administered by a trained person only.

#### SCHEDULE - XXII

(See rule 84)

#### Manufacturing Process or Operations in Carbon Disulphide plant

1. Application- This schedule shall apply to all electric furnaces in which carbon disulphide is generated and all other plants where carbon disulphide after generation, is condensed refined and stored. This scheduled is in addition to and not in derogation of any of the provisions of the Act and Rules made thereunder.
2. Construction, installation and operation
  - a) 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 lay out shall be such that only a minimum number of workers are exposed to the risk of any fire or explosion at any one time;

- b) 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 and shall be so designed that carbon disulphide liquid and gas are in closed system during their normal working;
  - c) The electric furnace supports shall be firmly grouted in concrete or by other effective means;
  - d) Every electric furnace shall be installed and operated according to manufactures instructions and these instructions shall be clearly imparted to the personal in charge of construction and operations;
  - e) The instructions regarding observance of correct furnace temperature, sulphur dose, admissible current of power consumption and periodical checking of charcoal level shall be strictly complied with.
3. Electrodes
- a) 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 build in the electrodes or through a positive pressure water-pump.
  - b) The arrangement for cooling water referred to in sub-paragraph (1) shall be connected with automatic alarm system which will actuate in the event of interruption of cooling water in the electrodes and give visible and audible alarm signals 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 everyday.
4. Maintenance of charcoal levels – When any electric furnace is in operation, it shall be ensured that the electrodes are kept covered with charcoal bed.
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. Repair discs and safety seal
- a) At least two rupture disc 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 or the furnace of each through an independent pipe as close as possible to the furnace.
  - b) A safety water seal shall be provided and tapped from a point between the charcoal separator and the sulphur separator.
7. Pyrometer and Manometer
- a) 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 temperatures shall be located in the control room.
  - b) Manometer or any other suitable devices shall be provided for indicating pressure.
    - (i) in he/she off take pipe before and after the sulphur separator; and
    - (ii) 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 slowing back in to any electric furnace in the event of its shutdown.
9. Inspection and maintenance of electric furnaces
- a) Every electric furnace shall be inspected internally by a competent person
    - (i) before being placed in service after installation;
    - (ii) before being placed in service after reconstruction or repairs; and
    - (iii) periodically every time the furnace is opened for cleaning or de-ashing or for replacing electrodes.

- b) When an electric furnace is shut down for cleaning or de-ashing-
  - (i) the brick lining shall be checked for continuity and any part found defective removed;
  - (ii) after removal of any part of the lining referred to in (a) the condition of the shell shall be closely inspected; and
  - (iii) any plates forming shell 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 pyrometer and all other vital points near the sulphur 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 the disulphide is refined or stored, and a notice in the language understood by a majority of the workers shall be pasted on the plant prohibiting smoking and carrying of matches, fire of naked light or other means of producing naked light of spark in to 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 as 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 electricity and in case of failure of electricity by some mechanical means.
- 15. Firefighting equipment
  - a) Adequate number of suitable fire extinguishers or other firefighting equipment shall be kept in constant readiness for dealing with risks involved and depending on the amount and nature of material stored;
  - b) Clear instructions as to how the extinguishes 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 personal trained in their use.
- 16. Bulk Sulphur
  - a) Open or semi enclosed spaces for storage of bulk sulphur shall be sited with the due regard to the dangers which may arise from sparks given off by nearby locomotive etc., and precautions shall be taken to see those 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.
  - b) 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 lodge;
  - c) 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 shovelled or otherwise removed by hand;
  - d) No repair involving flames heat or use of hand of power tools shall be made in the enclosure where bulk sulphur is stored.

17. Liquid sculpture– Open flames, electric sparks and other sources of ignition, including smoking and matches; shall be excluded from the vicinity of molten sculpture.
18. Training and supervision
  - a) 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;
  - b) Workers in-charge of operation and maintenance of electric furnaces and the plants shall be properly qualified and adequately trained.
19. Washing facilities
  - a) 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 cm 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.
  - b) All the workers employed in the sulphur storage, handling and melting operations shall be provided with a nailbrush.
20. Personal protective equipment
  - a) Suitable goggles and protective clothing consisting of overalls without pockets, gloves and foot-wear shall be provided for the use of operators-
    - (i) when operating valves or cocks controlling fluids etc.,
    - (ii) drawing off of molten sulphur from sulphur posts; and
    - (iii) handling charcoal or sulphur
  - b) Suitable respiratory protective equipment shall be provided and stored in the appropriate place for use during abnormal conditions or in an emergency.
  - c) Arrangements shall be made for the proper and efficient cleaning of all such protective equipment.
21. Cloak rooms – There shall be provided and maintained for the use of all persons employed in the process a suitable clock room for clothing put off during work hours and a suitable place separate from the cloak room for the storage of overalls or working clothes. Then 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.

#### SCHEDULE - XXIII

(See rule 84)

##### 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 substances mentioned in paragraph 3 and 4 are formed, manufactured, handled or used and the processes incidental thereto in the course of which these substances are formed, are carried on. The processes indicated in the paragraph shall be referred to hereinafter “as the said processes” and such a reference shall mean any or all the processes described in this paragraph.
2. Definitions – For the purpose of this schedule the following definitions shall apply, unless the context otherwise requires,-
  - a) “controlled substances” means chemical substances mentioned in paragraph 4 of this schedule;
  - b) “efficient exhaust draught” means localized 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 deemed to be efficient which fails to remove smoke generated at the point where such gas, vapour, fume or dust originates; and
- c) "prohibited substances" means chemical substances mentioned in paragraph 3 of this schedule
3. Prohibited substances – For the purpose of this schedule, the following chemical substances shall be classified as "prohibited substances" except when these substances, are present or are formed as a by-product of a chemical reaction in a total concentration not exceeding one percent;
    - a) beta- naphthylamine and its salts;
    - b) Benzidine and its salts;
    - c) 4-amino diphenyl and its slats;
    - d) 4-nitro diphenyl and its salts; and
    - e) any substances containing any of these compounds.
  4. Controlled substances – For the purpose of this schedule the following chemical substances shall be classified as controlled substances.
    - a) Alpha-naphthylamine or alpha-naphthylamine containing not more than one percent of beta-naphthylamine either as a by-product of chemical reaction or otherwise, and its salts;
    - b) Ortho-tolidine and its salts;
    - c) Dianisidine and its salts;
    - d) Dichlorobenzene and its salts;
    - e) Auramine; and
    - f) Magenta
  5. Prohibition of employment – No person shall be employed in the said process in any factory in which any prohibited substance is formed, manufactured, processes, handled, or used except as exempted by the Chief Inspector-cum-Facilitator as stipulated in Paragraph 23.
  6. Requirements for processing or handling controlled substances
    - a) Where ever any of the controlled substances referred to in paragraph 4 are formed manufactured, processed, handled, or used, all practical steps be taken to prevent inhalation, ingestion or absorption of the said controlled substance by the workers while engaged in processing that substance, and its storage or transport within the plant, or in cleaning or maintenance of the concerned equipment, plant, machinery and storage areas.
    - b) As far as possible all operations shall be carried out in a totally enclosed system. Wherever such enclosure is not possible, efficient exhaust draught shall be applied at the point where the controlled substances are likely to escape into the atmosphere during the process.
    - c) The controlled substances shall be received in the factory in tightly closed containers and shall be kept so except when these substances are in process or in use. The controlled substances shall leave the factory only in tightly closed containers of appropriate type. All the containers shall be plainly labelled to indicate the contents.
  7. Personal protective equipment
    - a) The following items of personal protective equipment shall be provided and issued to every worker employed in the said processes:-
      - (i) long trousers and shirts or overall, with full sleeves and head coverings. The shirt or overall shall cover the neck completely; and
      - (ii) rubber gum-boots.
    - b) The following items of personal protective equipment shall be provided in sufficient numbers for use by workers employed in the said processes when there is danger of injury during the performance of normal duties or in the event of emergency;
      - (i) rubber hand-gloves;
      - (ii) rubber aprons; and
      - (iii) airline respirators or other suitable respiratory protective equipment.

- c) It shall be the responsibility of the manager to maintain all items of personal protective equipment in a clean and hygienic condition and in good repair.
8. Prohibition relating to employment of women and young persons – No women or young person shall be employed or permitted to work in any room in which the said process is carried on.
9. Floors of workroom – The floor of every workroom in which the said process 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 sand
  - d) thoroughly washed daily with the drain water being led into a sewer through a closed channel.
10. Disposal of empty containers – Empty containers used for holding controlled substances shall be thoroughly cleaned of their contents and treated with an inactivating agent before being discarded.
11. Manual handling– Controlled substances shall not be allowed to be mixed, filled, exempted or handled except by means of a scoop with a handle such scoop shall be thoroughly cleaned daily.
12. Instructions regarding risk – Every worker in his first employment in the said processes shall be fully instruction on the properties of the toxic chemicals to which he/she 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.
13. Cautionary placards – Cautionary placards in the form specified in appendix attached to this schedule and printed in the language of the majority of the workers employed in the said processes shall be affixed in prominent places frequented by them in the factory where the placards can be easily and conveniently read. Arrangements shall be made by the manager to instruct periodically all such workers regarding the precautions contained in the cautionary placards.
14. Obligations of the workers – It shall be the duty of the persons employed in the said processes to submit themselves for the medical examination including exfoliate cytology of urine by the Medical Officer or the qualified medical practitioner as provided by under these rules.
15. Washing and bathing facilities
- (a) 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 process:-
    - (i) a wash place under cover having constant supply of water and provided with clean towels, soap and nailbrushes and with at least one stand pipe for every five such workers;
    - (ii) 50 percent of the stand pipes provided under clause (a) shall be located in the bathrooms where both hot and cold water shall be made available under the working hours of the factory and for one hour thereafter;
    - (iii) the washing and bathing facilities shall be in close proximity of the area housing and the said process;
    - (iv) clean towels shall be provided individually to each worker; and
    - (v) 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.
  - (b) Arrangement shall be made to wash factory uniforms and other work clothes every day.
16. Food, drinks etc. prohibited in workroom – No worker shall consume food, drink, a 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.
17. 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) 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 case of responsible person and shall be kept clean.

18. 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.
19. Time allowed for washing – Before the end of each shift 30 minutes shall be allowed for bathing for each worker who is employed in the said process. Further, at least 10 minutes shall be allowed for washing before each meal in addition to the regular time allowed for meals.
20. Restriction on age of persons employed – No worker under the age of 40 years shall be engaged in the factory in the said processes for the first time after the date on which the schedule comes into force.
21. Medical facilities and records of examinations and tests
  - a) The occupier of every factory to which the schedule applies, shall-
    - (i) employs 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 of Factories; and
    - (ii) provided to the said medical practitioner all the necessary facilities for the purpose referred to in clause(a).
  - b) The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register provided by the Chief Inspector-cum-Facilitator of Factories, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
22. Medical examination by the Medical Officer
  - a) Every worker employed in the said process shall be examined by a Medical Officer within 15 days of his first employment. Such examination shall include tests for detection of methaemoglobin in food (Haematological tests), Para nitrophenol in urine, pulmonary function tests and CNS tests. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical Officer.
  - b) Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every six calendar months and such re-examination shall, wherever the Medical Officer considers appropriate, include all the tests specified in sub-paragraph (1).
  - c) The Medical Officer after examining a worker shall issue a Certificate of Fitness in FORM VI. 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 Medical Officer in a health register in Form-V.
  - d) The Certificate of fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - e) If at any time the Medical Officer 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/she 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/she 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/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.

- f) No person who has been found unfit to work as said in subparagraph (5) shall be re-employed or permitted to work in the said process unless the Medical Officer after further examination, a gain certifies him fit for employment in those processes.
23. Exemptions – Prohibited substances
- a) The Chief Inspector-cum-Facilitator may by a Certificate in writing which he/she may at his discretion revoke at any time, subject to such conditions, if any, as may be specified therein, exempt any process in the course of which any of the prohibited substances if formed processes, manufactured, handled, used, from the provisions of paragraph 5 if he/she is satisfied that the process is carried out in a totally enclosed and hermetically sealed system in such a manner that the prohibited substance is not removed from the system except in quantities no greater than that required for the purpose of control, of the process or such purposes as is necessary to ensure that the product or such purpose is free from any of the prohibited substances.
- b) The Chief Inspector-cum-Facilitator may allow the manufacture, handling or use of Benzidine hydrochloride provided that all the processes in connection with it are carried out in a totally enclosed system in such a manner that no prohibited substance other than Benzidine hydrochloride is removed there from except in quantities no greater than that required for the purpose of control of the processes or such a purposes as is necessary to ensure that the product is free from prohibited substances and that adequate steps are taken to ensure that Benzidine hydrochloride is, except while not in a totally enclosed system, kept with not less than one part of water to two parts of Benzidine hydrochloride at all times.
24. Exceptions – General – 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/she 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/she may specify therein.

CAUTIONARY PLACARD/NOTICE  
CARCINOGENIC DYE INTERMEDIATES

1. Dye intermediates which are nitro amino derivates or aromatic hydrocarbons are toxic. You have to handle these chemicals frequently in this factory.
2. Use the various items of protective wear to safeguard your own health.
3. Maintain scrupulous cleanliness at all times. Thoroughly wash hands and feet before taking meals. It is essential to take a bath before leaving the factory.
4. Wash off any chemical falling on your body with soap and water. If splashed with a solution of the chemical, remove the contaminated clothing immediately. These chemicals are known to produce cyanosis. Contact the medial officer or appointed doctor immediately and get his advice.
5. Handle the dye intermediates only with long handled scoops, never with bare hands.
6. Alcoholic drinks should be avoided as they enhance the risk of poisoning by the chemicals.
7. Keep your food and drinks away from work place, consuming food, drinks or tobacco in any form at the place of work is prohibited.
8. Serious effects from work with toxic chemicals may follow after many years. Great care must be taken to maintain absolute cleanliness of body, clothes, machinery and equipment.

SCHEDULE- XXIV  
(See rule 84)  
OPERATIONS INVOLVING HIGH NOISE AND VIBRATION LEVELS

Part – A High Noise Levels:

1. Application – This part of the Schedule shall apply to operations involved in any manufacturing process where noise level is high from the permitted levels.
2. Definitions – For the purpose of this schedule,-
  - a) "noise" means any unwanted sound.
  - b) "high noise level" means noise level measured on the A-weighted scale which is 85 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 of 10 of these ratios. The noise level (or the sound pressure level) corresponds to a reference pressure of  $20 \times 10^{-5}$  Newton per square meter or  $0.0002$  dynes per square centimeter, the threshold of hearing, i.e., 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) "dB A" refers to sound level in decibels as measured on a sound level meter operating on the A-weighting network with slow meter response.
  - f) "A-weighting" means making graded adjustments in the intensities of sound for 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 being measured.
3. Protection against Noise–
  - a) In every factory, a suitable engineering controls or administrative measures shall be taken to ensure, in so far as is reasonably practicable, so that no worker is exposed to sound levels exceeding the maximum permissible noise exposure levels specified in Tables 1 and 2.

TABLE 1  
PERMISSIBLE EXPOSURE IN CASES OF CONTINUOUS NOISE

Total time of exposure, continuous or Sound pressure level in dBA for short term exposures permissible per day in hours

Hours	dBA
8	85
6	87
4	90
3	92
2	95
1½	97
1	100
¾	102
½	105
¼	110

Notes: -

1. Exposure in excess of 110 dBA shall not 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.

1.	Peak sound pressure level in dB permitted viz. the permissible number of impulses or impact per day shall be –
	dB      Nos. of impulses per day
	140    100
	135    315
	130    1,000
	125    3,160
	120    10,000

Notes: -

1. Exposure in excess of 140 dB peak sound pressure level shall not be permitted.
2. For any peak sound pressure level falling in between any figure and the next Higher or lower figure as indicated in column 1, the permitted number of Impulses or impacts per day is to be determined by extrapolation on a proportionate basis.

2. 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 only the criteria given in Table 1. In other cases, the noise is to be considered as impulsive or impact noise and the criteria given in Table 2 shall apply.
3. When the daily exposure is composed of two or more periods of noise exposure at different levels then their combined effect should be considered, rather than the individual effect. The mixed exposure is considered to have exceed the limit value if the sum of the fractions  $C1/T1 + C2/T2 + \dots + Cn/Tn$  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 permissible at that level. Noise exposure of less than 90 dBA may be ignored in the above calculation.
4. Where it is not possible to reduce the noise exposure to the levels specified in paragraph (1) above by reasonably practicable engineering control or administrative measures, the noise exposure shall be reduced to the greatest extent practically possible by such control measures. And each worker so exposed shall be provided with suitable ear protectors as per relevant national or international standards as to reduce the exposure to the levels specified in paragraph (1) above
5. The Occupier shall provide personal hearing protectors to the Workers:
  - a) So as to eliminate the risk to hearing or to reduce the risk to a level as is reasonably practicable;
  - b) After consultation with the workers concerned or their representatives, suitable protectors conforming to the bodily features of the workers shall be provided free of cost;
  - c) Ensure that hearing protectors are properly fitted, periodically checked for the effectiveness, worn and maintained in good working condition and repaired as and when needed;
  - d) Ensure that workers are given periodical training in the use, care and maintenance of the personal hearing protectors;
6. Where the ear protectors provided in accordance with sub-paragraph (3) and (4) and worn by a worker is ineffective to attenuate the noise from harming his ear, as observed when, measured by subtracting the attenuation value in dBA from the measured sound pressure level, has gone to a level not permissible under Table 1 or Table 2 as the case may be, the noise exposure period then shall be suitably reduced to correspond to the permissible noise exposures specified in sub-paragraph (1) above.
7. a) In all cases where the prevailing sound levels exceed the permissible levels specified in sub-paragraph (1) above there shall be administered an effective hearing conservation programme and which shall include among other things hearing conservation measures, pre-employment and

periodical auditory surveys on workers exposed to noise exceeding the permissible levels, including 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 sub-paragraph (1) above shall be subjected to auditory examination by a Medical Officer within 14 days of his first employment and thereafter, shall be re-examined at least once in every 12 months. Such initial and periodical examinations shall include tests which the Medical Officer 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.

#### Part – B High Vibration Levels:

1. Applications:- This part of the Schedule shall apply to all operations in a manufacturing or part thereof having high undesired vibration levels.
2. Definitions:-
  - a) "daily exposure" means the quantity of mechanical vibration to which a worker is exposed during a working day, that also takes into account the magnitude and duration of such vibration levels;
  - b) "vibration" means a mechanical phenomenon where by oscillations occur about an equilibrium point. The oscillations may be periodic or random;
  - c) "high vibration" means any exposure greater than the exposure limit value and action-value specified in paragraph 3 below
  - d) "exposure action value" means the level of daily exposure set out in paragraph 3 below for any worker which, if reached or exceeded, requires specified action to be taken to reduce the risk;
  - e) "exposure limit value" means the level of daily exposure for any worker that shall not be exceeded, as specified in paragraph 3 below.
  - f) "hand-arm vibration" means mechanical vibration which is transmitted onto the hands and arms during a work or mechanical activity;
  - g) "mechanical vibration" means vibration occurring in a part of the machinery or equipment or in a vehicle consequent on its operation; and
  - h) "whole-body vibration" means mechanical vibration which is transmitted to the body, when sitting or standing, during a work activity or as described in sub paragraph 3 (2) below.
3. Exposure limit values and action values:-
  - a) For hand-arm vibration,
    - (i) the daily exposure limit value is 5 m/s<sup>2</sup>A (8);
    - (ii) the daily exposure action value is 2.5 m/s<sup>2</sup> A (8), and daily exposure shall be ascertained on the basis of the values set out in the relevant National/ International standards, specified in Table 1 below.
  - b) For whole body vibration,-
    - (i) the daily exposure limit value is 1.15 m/s<sup>2</sup> 2A (8);
    - (ii) the daily exposure action value is 0.5 m/s<sup>2</sup> A (8); and daily exposure shall be ascertained on the basis of the values set out in the relevant National/ International standards.

TABLE – 1

1. The Threshold Limit Values (TLVs) for exposure of hands while using hand held/hand operated devices to vibration levels in X, Y, and Z directions shall be as given below:

2. Total Daily Exposure Duration (hours)      Maximum value of frequency weighted acceleration (m/s<sup>2</sup>) in any direction
  - 4 to less than 8 hours 4
  - 2 to less than 4 hours 6
  - to less than 2 hours 8
  - Less than 1 hour 12
3. Assessment of vibration exposure shall be made for each direction (X, Y, Z) since vibration is a vector quantity having (magnitude and direction). In each direction, the magnitude of the vibration during normal operation of the power too, machine or work piece should be expressed by the root-mean-square (RMS) value of the frequency – weighted component acceleration, in units, meter per second squared (m/s<sup>2</sup>)
4. Assessment of risk to health due to vibration at workplaces: -
  - a) The occupier who carries out work which is liable to expose any worker to vibration shall make a suitable and sufficient assessment with the help of a competent agency of the risk involved in that work to the health and safety of workers and the assessment so made shall identify the control measures that need to be taken.
  - b) The risk assessment should be reviewed whenever it is felt that the change in the process has made the earlier risk assessment no longer valid.
5. Engineering Control Measures:-
  - a) The occupier shall ensure that risk from the exposure of workers to vibration is either eliminated at source or, where this is not reasonably practicable, reduced to as low a level as is reasonably practicable.
  - b) Where it is not reasonably practicable to eliminate risk at source, pursuant to clause (a) of paragraph 4 an exposure-action-value is likely to be reached or exceeded, the employer shall reduce exposure to a level as is reasonably practicable by establishing and implementing a re-engineering and rehabilitation programme, which is appropriate to the type of activity that is being carried on.
  - c) The occupier shall ensure that following measures are taken–
    - (i) work equipment shall be of appropriate ergonomic design, taking into account, the work to be done, reducing the vibration levels to the minimum;
    - (ii) work equipment shall have auxiliary equipment to reduce the risk of injuries caused by vibration; supported with appropriate maintenance programmes for the equipment and the associated systems and workplace;
  - d) Subject to sub-rule 2, the employer shall ensure that the workers are not exposed to vibration above the exposure limit value; and if not, shall take necessary steps to identify the reasons for the limit being exceeded and reduce the exposure to vibration, to below the limit value specified:
 

Provided where the exposure of a worker to vibration is usually below the exposure-action- value but varies from time to time and may occasionally exceed the exposure limit value, appropriate measures shall be taken to reduce the levels to within specified limits. Provided further, any exposure to vibration averaged over one week is less than the exposure limit value and there is evidence to show that the risk from the actual pattern of exposure is less than the corresponding risk from constant exposure at the exposure limit value; and that the risk is reduced to as low level as is reasonably practicable, taking into account the special circumstances, the pattern shall be maintained in the long run.
6. Medical examination:-
  - a) The occupier shall ensure that the workers who are likely to be exposed to vibration at levels above exposure action value are subjected to periodical medical examination once in a year. The medical examination shall include general and physical examination as well as special test for Reynaud's phenomenon.

- b) The health record of workers shall be maintained by the occupier for a period of 5 years from the date of last test and the same shall be produced before the Inspector-cum- Facilitator of Factories on demand.
  - c) If at any time, the Medical Officer/Factory Medical Officer is of the opinion that the worker is no longer fit to work in the said process on the ground that continuance therein would involve danger to the health of the worker, he/she shall make a record of his findings in fitness certificate and the health register. The entry of his findings in those documents shall include the period for which he/she considers the person unfit for work in the manufacturing process/processes. The person declared unfit in such circumstances shall be provided with alternate placement facility unless in the opinion of the Medical Officer, he/she is fully incapacitated and in that case the person affected shall be suitably rehabilitated with sufficient compensation.
7. Personal Protective Equipment:-
- a) The occupier shall ensure that the workers who are likely to be exposed to high levels of vibration are provided with appropriate personal Protective Equipment and protective clothing conforming to the National or International Standards. Such Personal Protective Equipment should include hand gloves and safety shoes. The protective clothing shall be able to protect the workers from chilly damp areas.
  - b) The occupier shall ensure that workers are given periodical training in the daily use, care and maintenance of their Personal Protective Equipment.
8. Administrative Control Measures:-
- a) The occupier shall ensure that as far as reasonably practicable, all necessary control measures are taken to ensure that the unwanted vibrations does not affect the health of the workers employed in the process to which this part of Schedule apply.
  - b) The occupier shall provide all workers with information instruction and training to limit the exposure within limit values and action values as set out in paragraph –3.
  - c) Without prejudice to the generality of paragraph (1) above, the information, instruction and training provided under that paragraph should include-
    - (i) the exposure limit values and action values set out in sub paragraph-3
    - (ii) safe working practices to minimize exposure to vibration; and
    - (iii) suitable and sufficient information and training to inculcate right practices while handling work equipment to minimize the exposure to vibration, and to use the equipments safely and in the right manner.
    - (iv) Limitation of the duration and magnitude of exposure to vibration;
    - (v) appropriate work schedules with adequate rest periods; and
    - (vi) The information, instruction and training required by sub-paragraph (2) above shall be updated to take into account the significant changes that are coming up in the type of work being carried on or the working methods use by the employer.
  - d) The Occupier shall display pictorial cautionary notices/warning signs at conspicuous places more frequented by workers where there are possibilities of them being exposed to undesired levels of high vibrations.
9. Prohibition in employment of women, young persons and persons with disabilities: - No women or young person or persons with disabilities shall be employed in the process covered by this part of the schedule.
10. Exemptions:- If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to any exceptional circumstances, or intermittent nature 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/she may by an order in writing which he/she may at his discretion revoke, exempt such factory from all or any of the provisions on such conditions and for such period as he/she may specify.

## SCHEDULE - XXV

(See rule 84)

## Manufacture of Rayon by Viscose Process.

1. Definition – For the purpose of this schedule
  - a) “approved” means approved for the time being in writing by the Chief Inspector.
  - 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 localized 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, foot wear, gloves and overalls made of suitable materials.
2. Ventilation–
  - a) In all work rooms where a fume process is carried on, adequate ventilation by natural or mechanical means shall be provided so as to control, in association with other control measures, the concentration of carbon disulphide and hydrogen sulphide in the air of every work environment within the permissible limits.
  - b) Notwithstanding the requirements in sub-paragraph (1) the efficient exhaust draught shall be provided and maintained to control the concentration of carbon-di-sulphide and hydrogen sulphide in the air at the following locations.
    - (i) dumping hoppers of dry churns;
    - (ii) spinning machines
    - (iii) trio-rollers and cutters used in staple fibre spinning
    - (iv) hydro-extractors for yarn cakes
    - (v) after treatment processes; and
    - (vi) spin baths.
  - c) In so far as the spinning machines and trio rollers and cutter used in staple fibre spinning are concerned, they shall be, for the purpose of ensuring the effectiveness of the exhaust draught to be provided as required in sub paragraph 1, enclosed as fully as practicable and provided with suitable shutters in sections to enable the required operations to be carried out without giving rise to undue quantities of carbon-di-sulphide and hydrogen sulphide escaping to the work environment.
  - d) No dry churn shall be opened after completion of reaction without initially exhausting the residual vapours of carbon-di-sulphide by operation of suitable and efficient arrangements for exhausting the vapours which shall be continued to be operated as long as the churn is kept opened.
  - e) Whenever any ventilation apparatus normally required for the purpose of meeting the requirements in sub-paragraph (2), (3) and (4) is ineffective, fails, or is stopped for any purpose whatsoever, all persons shall be required to leave the work areas where the

- equipment or processes specified in the above said sub paragraph are in use, as soon as possible and in any case not alter than 15 minutes after such an occurrence.
- f) (a) All ventilating systems provided for the purposes as required in sub-paragraphs (2), (3) and (4) shall be examined and inspected once in 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.
3. Waste from spinning machines – Waste yarn from the spinning machines shall be deposited in suitable containers provided with close fitting covers. Such waste shall be disposed of as quickly as possible after decontamination.
  4. Lining of dry churns – The inside surface of all dry churns shall be coated with anon-sticky paint so that cellulose xanthate will not stick to the surface or all churn. Such coating shall be maintained in good condition.
  5. Air monitoring.-
    - a) Ensure the effectiveness of the control measures, monitoring of carbon-di-sulphide and hydrogen sulphide in air shall be carried out once at least in every shift and the record of the result so obtained shall be entered in a register specially maintained for the purposes.
    - b) For the purpose of the requirements in sub-paragraph (1), instantaneous gas detector tubes shall not be used. Samples shall be collected over a duration of not less than 10 minutes and analysed by an approved method. The locations where such monitoring is to be done shall be as directed by the Inspector cum facilitator.
    - c) If the concentration of either Carbon disulphide or hydrogen sulphide exceeds the permissible limits for such vapour or gas as laid down, 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 person.- No young person shall be employed or permitted to work in any fume processor in any rooms in which any such process is carried on.
  8. Protection equipment.-
    - a) The occupier shall provide and maintain in good condition protective equipment as specified in the Table for use of persons employed in the process referred to therein.

#### TABLE

##### Process Protection equipment

1. Dumping Overall, face-shields, gloves and foot wear all made of suitable material
2. Spinning Suitable aprons, gloves and footwear
3. Process involves or likely to involve contact with viscose solution Suitable gloves and footwear
4. Handing of sculpture Suitable chemical goggles
5. Any other process involving contact with hazardous chemicals
6. Protective equipment as may be directed by the Chief Inspector by an order in writing
- b) A suitable room, rooms or lockers shall be provided exclusively for the storage of all the protective equipment supplied to workers and no such equipment shall be stored any place other than the room, rooms or lockers so provided.
9. Breathing Apparatus,-
  - a) There shall be provided in every factory where fume is carried on, sufficient supply of-

- (i) Breathing apparatus.
  - (ii) Oxygen and suitable appliances for its administration, and
  - (iii) Life belts.
  - b) (i) The breathing apparatus and other appliances referred to in sub-paragraph (1) shall be maintained in good condition and kept in appropriate locations so as to readily available.
  - (ii) The breathing apparatus and other appliances referred to in clauses (a) and (b) of sub paragraph (1) shall be– cleaned and disinfected at suitable intervals and thoroughly inspected once in every month by a responsible person.
  - (iii) A record of the maintenance of the condition of the breathing apparatus and other appliances referred to in sub-paragraph (1) shall be entered in a register provided for that purpose which shall be readily available for inspection by an Inspector
  - c) Sufficient number of workers shall be trained and periodically retained in the use of breathing apparatus and administering artificial respiration so that at least 2 such trained persons would be available during all the working hours in each room in which fume process is carried on.
  - d) Breathing apparatus shall be kept properly, labelled in clean, dry, tight-proof cabinets and if liable to be affected by fumes, shall be protected by placing them in suitable containers.
  - e) No person shall be employed to perform any work for which breathing apparatus is necessary to be provide under sub-paragraph (1) unless he has been fully instructed in the proper use of the equipment.
  - f) No breathing apparatus provided in pursuance of sub-paragraph (1) which has been worn by a person shall be worn by another person unless it has been thoroughly cleaned and disinfected since last being worn and the persons has been fully instructed in the proper use of that equipment.
10. Electric fittings – All electric fittings in any room in which carbon disulphide 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 dead-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 at 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 of spark may be carried on in such room only when injured for the purposes of the process itself under the direction of a responsible person.
12. Washing and bathing facilities–
- a) There shall be provided and maintained in 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 25 persons employed.
  - b) The washing places shall have stand pipes placed at intervals of not less than one meter.
  - c) Not less than one half of the total number of washing places shall be provided with bath- rooms.
  - d) Sufficient supply of clean towels made of suitable material shall be provided:
  - e) Provided that such towels shall be supplied individually for each worker if so, ordered by the Inspector cum facilitator.
  - f) Sufficient supply of soap and nail brushes shall be provided.
13. Rest room–
- a) A rest room shall be provided for the workers engaged in doffing operations of filament yarn spinning process.

- b) Such rest room shall be provided with fresh air supply and adequate seating arrangement.
14. Cautionary notice and instructions–
- a) 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.
  - (v) 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 also displayed.
- b) 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.
- c) Simple and special instructions shall be framed to ensure that effective measures will be carried out in case of emergency involving escape of carbon disulphide and hydrogen sulphide. Those instructions shall be displayed in the concerned area and workers shall be instructed and trained in the action to be taken in such emergencies.
15. Medical facilities and records of examinations and tests–
- a) The occupier of each factory to which this schedule applies shall-
- (i) employ a qualified medical officer for medical surveillance of the workers employed in the fume process whose employment shall be subject to the approval of the Chief Inspector cum facilitator; and
- b) The record of medical examination and appropriate tests carried out by the said medical officer shall be maintained in a separate register approved by the Chief Inspector of Factories which shall be kept readily available for inspection by the Inspector-cum- Facilitator.
16. Medical Examinations by the Certifying Surgeon –
- a) Every worker employed in the fume process shall be examined by a certifying surgeon within 15 days of his first employment. Such examination shall include tests for estimation of exposures co-efficient (iodine-azide test on urine) and cholesterol as well as electrocardiogram (ECG) and Central Nervous System (CNS) Tests. No workers 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.
- b) Every worker employed in the fume process shall be re-examined by a Certifying Surgeon at least once in every twelve calendar months. Such examination shall wherever the Certifying Surgeon considers appropriate, include all the tests as specified in sub- paragraph (1)
- c) The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in FORM-VI. The record of re-examinations carried out shall be entered in the certificates and 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 the tests, shall also be entered by the Certifying Surgeon in a health register in FORM-V.
- d) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector cum facilitator.
- e) If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the fume process on the ground that continuance therein would involve special

danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said persons are unfit for work in the fume process. The persons 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 suitable rehabilitated.

- f) No person who has been found unfit to work as said in sub-paragraph (5) above shall be reemployed or permitted to work in the fume process unless the Certifying Surgeon after further examination again certified him fit for employment in such process.
17. Exemptions – If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or infrequency of the process 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.

#### SCHEDULE- XXVI

(See rule 84)

#### FLAMMABLE LIQUIFIED OR COMPRESSED GASES AND HIGHLY FLAMMABLE LIQUIDS

1. Applications:- Provisions of this Schedule shall apply to all factories where flammable liquefied or compressed gases or highly flammable liquids are manufactured, stored, handled or used.
2. Definitions:- For the purposes of this Schedule,-
  - a) "bulk storage" means bullet or Horton sphere or mounded vessel used for storage of flammable liquefied or compressed gases or highly flammable liquids having storage capacity exceeding one thousand litres equivalent water holding capacity;
  - b) "bullet" means a horizontal cylindrical pressure vessel with hemispherical or dished ends used for storage of flammable liquefied or compressed gas;
  - c) "explosive mixture" means a mixture of combustion agent (oxidizing substance in gaseous, liquid or solid state) and a fuel (oxidisable substance in gaseous, liquid or solid state) in such proportions that could give rise to a very rapid and violent oxidation reaction, liberating more kinetic energy than is dissipated through conduction and convection, ultimately causing explosion;
  - d) "fire proof" means a passive means of protecting a structure or equipment or vessel from exposure to direct fire or flame impingement or prolonged exposure to high intensity radiant thermal flux, by the application of a coating or cladding of certain heat-resistant substance or mixture of a specified rating;
  - e) "fire safe" means a provision of dual seating to control leakage to within acceptable level, even after damage, due to fire, as applied to valves;
  - f) "flammable compressed gas" means flammable compressed gas as defined in rule 2 of the Static and Mobile Pressure Vessels (Unfired) Rules, 1981 issued under the Explosives Act, 1884 (Central Act IV of 1884);
  - g) "flammable liquefied gas" means a flammable gas kept in liquefied state by the application of pressure at normal ambient temperature, 13% (thirteen percentage) or less of which by volume with air forms a flammable mixture or which has a flammable range with air of at least 12% (twelve percentage) by volume regardless of the lower flammable limits;
  - h) "gas free" means a condition where the concentration of a flammable gas in an equipment or a vessel is well below the threshold limits (lower explosive limit), and it is safe for a man to enter into the equipment or Vessel or to conduct "hot work" there, as the case may be;

- i) "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 (Central Act XXX of 1934) gives off flammable vapours at a temperature less than 32 degrees Centigrade;
  - j) "horton sphere" means a spherical Pressure Vessel, supported vertically and is used for the storage of flammable liquefied or compressed gas;
  - k) "hot work" means an activity which may produce enough heat or spark to ignite a flammable or explosive or explosive mixture;
  - l) "mounded vessel" means a pressure vessel for the storage of flammable liquefied or compressed gas, which is placed above ground level and is completely covered by a mound of on earth or similar inert material uncovering nozzles, manhole covers and inspection covers fitted on top of the vessel;
  - m) "purging" means an act of replacing the atmosphere inside a vessel or a container with an inert gas to such an extent as to push away the traces of flammable gases as to prevent the formation of an explosive mixture;
  - n) "purging into service" means the process of replacement of gas in a closed system with an inert gas and then replacing the inert gas with the desired flammable gas, vapour or liquid;
  - o) "purging out of service" means the replacement of flammable content within a closed system with an inert gas and then replacing it with air to such an extent that it is gas free and safe for the entry of any person for work;
  - p) "remote operated emergency valve" means a shut-off valve capable of being remotely operated that closes automatically on loosing actuating power or in fire engulfment and which is fire-safe.
3. Storage:- Every highly flammable liquid, flammable liquefied or compressed gas used in every factory shall be stored in bulk in suitable tank made of adequate fire-resistant construction and located in a safe position underground or in the open.
4. Location and spacing:- Before deciding on the location of any storage vessel, risk analysis study shall be carried out and based on the risk analysis study, the storage vessel shall be located in the manner specified below:-
- a) The location shall not interfere with the movement of vehicles. The perceived Risk contour should not intercept the public places such as assembly points, canteen, rest sheds and similar other locations;
  - b) Before locating any storage vessel, the soil condition shall be assessed as desired by the superstructure;
  - c) The storage vessel shall be placed above ground in open and in a well-ventilated place;
  - d) Mounded vessels shall be so located that the manholes and pressure relief valves are in a well-ventilated position;
  - e) The minimum setback for safety between the storage vessels and buildings, boundary or fixed ignition source shall be in accordance with the Static and Mobile Pressure Vessels (Unfired) Rules, 1981, as amended from time to time;
  - f) The storage vessels shall not be installed one above the other;
  - g) The bullets shall be so located that their dished ends do not point towards other vessels, vital process equipments, control rooms, loading stations, nearby buildings or storage tanks containing hazardous materials;
  - h) Raw vegetation such as weeds, short/long grass, deciduous shrubs and trees and any combustible materials shall be removed from time to time from the storage vessel-area, covered under the licensed premises;
  - i) The storage vessels shall not be located within the bunded enclosure of any heat source or other flammable liquids, gases or oxidizers;

- j) The storage vessels, pumping equipment, loading and unloading facilities and vaporisers
  - k) shall be located within at least 2 metres high fencing along the perimeter of the safety zone and the fenced compound shall have at least two separate gates for the safe exit of persons and vehicles in case of any emergency, preferably on the upwind/crosswind side.
  - l) The number of storage vessels in one battery shall not exceed six;
  - m) Storage vessels within a group shall be so located that their longitudinal axes are Parallel to each other;
  - n) Spheres and bullets shall not be grouped together and shall be provided with separate piping manifold, so as to avoid overfilling of a vessel due to head difference with another connected vessel in the same manifold.
  - o) The top surface of the storage vessels installed in a battery shall be on the same plane so that the pressure safety valve blow-out from them do not affect the other;
  - p) The flooring of the bullets or spheres, shall be sloped in such a way that the spilled liquid or high-density gas from any vessel will not flow towards other vessels nearby;
  - q) The storage vessels shall be located in such a way that are high tension electrical cables will not cross overhead or pass nearby the licensed premises in which they are kept;
  - r) Storage vessels shall not be kept in places that are susceptible to frequent flooding;
  - s) the level of the storage vessels shall be elevated slightly from the surrounding terrain to ensure complete drainage of water;
  - t) every container, vessel or tank used for storing highly flammable liquid or flammable liquefied or compressed gas shall be clearly and in bold marked "Danger-Highly Flammable Liquid" or "Danger-Flammable Liquefied or Compressed Gas", as the case may be.
5. Design of storage vessels:-
- a) General – Each static vessel for the storage of flammable liquefied or compressed gas shall be provided with the following fittings and instruments which are suitable for use at pressures not less than the design pressure of the vessel and for the temperatures appropriate to the worst operating conditions, namely:-
    - (i) At least two pressure safety valves connected independently to the vapour space;
    - (ii) Two independent liquid level indicators;
    - (iii) A high-level alarm;
    - (iv) Two independent visible pressure gauges, connected to the vapour space; on both sides and
    - (v) Two temperature gauges for measuring the temperature of the contents of the vessel, on both sides.
  - b) Vessel connections: - In every flammable liquefied or compressed gas storage vessel,
    - (i) all the connections to the vessel shall be designed and fitted in accordance with the Design Code of IS-2825 or equivalent duly approved by the Chief Controller of Explosives;
    - (ii) more than one nozzle shall not be provided for inlet and outlet purpose, apart from the drainage pipe;
    - (iii) the nozzle shall be a full – welded pipe extending up to a minimum distance of 3 metres from the normal shadow of the vessel. A combination of manual and remote – operated-shut-down-valve shall be provided on such nozzle shall have a slope of 1.5 degrees to the horizontal;
    - (iv) the nozzle shall be stress-relieved along with the vessels;
    - (v) there shall not be any flange, instrument tapping or manhole on this nozzle on the upstream side before manual shut down valve and the remote operated valve; and
    - (vi) an excess flow valve shall be provided for the nozzle on the body of the vessel.

- c) Pressure Safety Valve:- In every storage vessel,-
- (i) the pressure safety valves provided shall be of spring-loaded type (weight-loaded safety valves shall not be used). Each of the pressure safety valves shall have 100% relieving capacity;
  - (ii) the pressure safety valves shall be set to discharge at a pressure not more than 110% of the design pressure of the vessel and shall have a total relieving capacity adequate for limiting the pressure build-up in the vessel beyond 120%
  - (iii) of the design pressure;
  - (iv) the discharge of the pressure safety valves shall be connected to a flare system, if so available. In cases of where the flare system is not available, the discharge from the pressure safety valve shall be vented vertically upwards to atmosphere at a minimum elevation of 5 metres above the top of the vessel for effective dispersion of the discharge. A loose-fitting rain cap with a non-sparking chain extending up to the ground level and attached to the vent pipe shall be provided on top of the pressure safety valve;
  - (v) an isolation valve shall be provided in between each pressure safety valve and the vessel. The arrangement of the isolation valve shall be so designed to allow full required capacity flow through at least one of the pressure safety valves; and
  - (vi) each pressure safety valve shall be visibly marked with the "set pressure" in kg/cm<sup>2</sup> (gauge) at which it will discharge, with its actual rate of discharge in cubic metre per minute at a pressure of 120% of the design pressure of the vessel.
- d) Emergency shut-off valve:- In every storage vessel,-
- (i) all liquid and vapour connections, except those for pressure safety valves and the drainage connections of diameter less than 25 millimetre shall have an emergency shut-off valve, such as an excess flow check valve or a remotely operated valve:  
Provided that the emergency shut-off valve is not required in cases where the connection to a vessel is not greater than three centimetre in diameter for liquid and eight centimetre in diameter for vapour;
  - (ii) Where the emergency shut-off valve provided is of 'excess flow check valve' type, its closing rate of flow shall not be below the resulting rate of flow that is likely due to a fracture in the line which it is protecting, in the worst condition so calculated. Excess flow check valve shall have a flow capacity sufficiently above the normal flow requirements to prevent valve chatter.
- e) Bottom water draw-off or drain valve:- In every storage vessel,-
- (i) there shall be provided two drain valves at the bottom of the vessel between the remotely operated valve and the first isolation valve. The length of the pipeline between the two drain valves shall be at least 0.5 metre to minimize the risk of simultaneous obstruction of both valves due to freezing of any water present in the liquefied gas. The drain connections shall not be not more than 50 millimetre in diameter; The drain device shall not be insulated;
  - (ii) the first drain valve from the vessel shall be of gate type (throttle type), while the second drain valve shall be of quick shut-off type; and
  - (iii) the material of construction for the drain pipeline and the related connections shall be suitable of cryogenic material.
- f) Sampling Valve: - Every storage vessel shall have, two valves fitted at 0.5 metre apart in the length between the remotely operated valve and the first isolation valve, to provide for, sampling purpose. (The provision of separation is for the purpose of avoiding freeze-chocking in the valve on the upstream.)

- g) Liquid level gauging device:- In every storage vessel, out of two-level indicators provided, one shall be of "float" type and the other shall be of "differential pressure" type especially for Horton Spheres. Magnetic float type gauge shall be used for bullets in place of "differential pressure" type. "High Level" alarm shall be set on the level indicators to operate at not more than 85% of the volumetric capacity of the vessel. An audio-visual indication with high level alarm shall be provided at or near the normal sitting place of the operator in a position visible all through the day.
  - h) Pressure gauge:- In every storage vessel, there shall be provided at least one pressure gauge, duly calibrated, and having a dial range covering not less than 1.5 times the design pressure, that is easily visible and consistently showing the correct internal pressure at all times. It shall be provided in the vapour space at the top. A suitable stop valve shall be provided in between the vessel and the pressure gauge for the maintenance and repair.
  - i) Gas sensors:- Every storage vessel meant for flammable liquefied or compressed gas storage shall be provided with gas-sensors with alarm at vulnerable areas, which, in the event of gas leakage, shall trip the compressor or pump, if in operation.
  - j) Bonding: - Electrical continuity shall be maintained between the flanges by bonding every storage vessel and its pipe lines.
  - k) Pop off valves:- "Pop off" valves shall be provided in between isolation valves on the pipelines carrying flammable liquefied or compressed gases.
  - l) Capacity of vaporizer:- The vaporizer connected to the flammable liquefied gas storage vessels shall have adequate capacity to meet the required flow rate of flammable liquefied gas in the process.
6. Prevention of ignition:- In every location where highly flammable liquid or flammable liquefied or compressed gas is stored, conveyed, handled or used or where there is danger of fire or explosion from accumulation of highly flammable liquid or liquefied compressed gas in air, all practicable measures shall be taken to exclude the sources of ignition. Such precautions shall include following:-
- a) All electrical apparatus shall either be isolated from the area of risk or they shall be of such construction installation and maintenance as to prevent any danger from there being a source of ignition;
  - b) Effective measures shall be adopted to prevent static charges accumulation beyond a dangerous limit;
  - c) No person shall wear or be allowed to wear any footwear 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 bolts 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 or any other hot spot whatsoever.
7. Earthing and bonding:-
- a) All electrical systems and equipment's and all structures, plants and other non-current-carrying metallic parts of major electric apparatus or any major metallic object in any place where flammable liquefied or compressed gases or highly flammable liquids are manufactured, stored, handled or used shall be efficiently earthed; and the resistance value of the earthing system relative to the general mass of the earth, shall not be more than-
    - (i) 4 ohms in the case of electrical systems and equipment for a device that ensures the operation of the protective device in the electrical circuit, whichever is lower and
    - (ii) 10 ohms in the case of all non-current carrying metallic parts of major electric apparatus or any major metallic object.

- b) All joints in pipelines, valves, plants, storage tanks and associated facilities and equipment's for handling flammable liquefied or compressed gases or highly flammable liquids shall be made electrically continuous by bonding or otherwise; the resistance valve between each joint shall not exceed 1 ohm.
  - c) A piping which is not in electrical contact with the associated tank or vessel shall be efficiently connected to such tank or vessel by a flexible conductor and looped with earthing system.
8. Enclosed system for conveying highly flammable liquids:- Wherever it is reasonably practicable, highly flammable liquids shall be conveyed within the factory, in totally enclosed system, consisting of pipe lines, pumps and similar appliances from the storage tank or vessel to the point of use. Such enclosed system shall be so designed, installed, operated and maintained as to avoid leakage or the risk of spilling.
9. Prohibition of smoking:- No person shall smoke in any place where a highly flammable liquid or flammable liquefied or compressed gas is present and in similar circumstances where smoking would give rise to a risk of fire. The occupier shall take all practicable measures to ensure compliance with this requirement and he/she shall display a notice in a conspicuous place indicating prohibition of smoking at all places where the requirement so applies.
10. Fire protection:- In every factory,-
- a) No vehicular traffic shall be permitted within the risk area of lower flammable limit of the Highly flammable liquid or flammable liquefied or compressed gas are stored. When required, only vehicles fitted with approved spark arrestors may be allowed with valid vehicle entry permit.
  - b) All the vessels used for bulk storage or handling of highly flammable liquid or flammable liquefied or compressed gases shall be protected against the hazards of fire as follows:-
    - (i) medium velocity water spray system shall be provided for all above ground level storage vessels, cylinder storage or filling or repair sheds, pump houses, bulk lorry and tank wagon gantries;
    - (ii) For fire detection, automatically actuated medium velocity water sprinkler system shall be provided at all critical locations, such as bulk storage, tank/truck or tank wagon gantry, pump or compressor house and vaporizers;
    - (iii) medium velocity water sprinkler system shall be based on heat or other detection signatures;
    - (iv) Quartzoid bulb protection designed to blow at a maximum of 79°C shall be provided in open areas or in the sheds;
    - (v) medium velocity water sprinkler system shall function in such a way that the actuation of fire detectors initiates the following and:-
      - (a) Opening of deluge valve;
      - (b) Blowing of audio-visual alarm at the fire pump house or control panel;
      - (c) Blowing of fire siren; and
      - (d) The diesel pump should get started based on the "Set pressure" to supplement or to maintain the fire water pressure in the ring main; and
    - (vi) The medium velocity water sprinkler system shall have a minimum spray density of ten litres per minute, per square metre in the case of flammable liquefied or compressed gas and in the case of highly flammable liquid, a minimum spray density of 3 litres per minute per square metre for the single largest risk area. For the purpose of calculation of a single risk area, the following shall be taken into account:-
      - (a) In case of bulk storage, adjoining vessels within the distance of  $R + 30$  metre, where  $R$  is the radius of the vessel and 30 metre shall be measured from the periphery of the vessel;
      - (b) In case of tank lorry gantry, a maximum of 8 bays shall be taken as a single risk area; and

- (c) In case of tank wagon gantry, a minimum of one gantry [600 Metric Tonnes] shall be taken as a single risk area.
- c) (i) A fire water ring main shall be provided all around the locations of storage and handling areas of flammable liquefied or compressed gases with hydrants or monitors spaced at 30 metres apart. Fire hydrants and monitors may be installed outside the licensed premises;
- (ii) the fire water pressure system shall be designed to get a minimum residual pressure of 7 kg/cm<sup>2</sup> (gauge) at the remotest place of application of the plant;
- (iii) fire hydrant network shall be provided in closed loops to ensure multi- directional flow in the system. Isolation valves shall be provided to enable isolation of any section of the network without affecting the flow in the rest; and
- (iv) the fire water system in the plant shall be designed to meet the highest fire- water flow requirement for the medium velocity water sprinkler to cover a single largest risk area at a time and shall ensure 288 metre<sup>3</sup>/hour of water, for operating at least two fire water monitors with supplementary hose requirements in addition.
- d) (i) Water for the hydrant service shall be stored in any easily accessible, surface or underground concrete reservoir or overhead tank of steel or concrete construction;
- (ii) The effective fire water storage capacity available for fire-fighting shall last for at least four hours; and
- (iii) Storage tank or reservoir for water shall have two inter connected compartments to facilitate cleaning and repair;
- e) Portable fire extinguishers as approved by Bureau of Indian Standards shall be located at convenient places as indicated in the Table below:-

TABLE

## Area Portable Fire Extinguisher

(1) (2)

- a) Flammable liquefied gas or storage vessels (each) two Numbers of 10 kg. DCP (Dry Chemical Powder) each
- b) Tank wagon loading or unloading gantries One 10 kg. Dry Chemical Powder extinguisher for every 15/20 metres of gantry
- c) Tank truck loading or unloading gantries One 10 kg. Dry Chemical Powder Fire Extinguisher in each Bay and 1 Number 50 kg. Mobile DCP Unit/gantry.

The dry chemical powder used in the extinguishers shall be Potassium or Urea based or Sodium Bicarbonate as per IS: 4308.

## 11. Loading and unloading facilities for flammable liquefied or compressed gas:-

- a) Loading:- In every factory, where the loading of flammable liquefied or compressed gas is carried on, the loading station shall consist of the following:-
- (i) A filling line with an isolation valve and check valve;
- (ii) A vapour return line with a check valve and an isolation valve to return the vapour back to the storage vessel from which the loading pump is drawing flammable liquefied gas;
- (iii) Suitable loading arm or flexible hoses shall be provided at the end of filling line and vapour return line for connecting to the tank-truck-vessels or tank-wagons; and
- (iv) Suitable thermal pressure relief valve(s) shall be provided between the Shut-off valves to protect against excessive pressure build up arising out of the thermal expansion of the trapped liquid;

- b) Unloading:- In every factory, where unloading of flammable liquefied or compressed gas is carried on, and wherein a compressor is used for unloading the flammable liquefied gases by utilizing the differential pressure between the receiving and discharging vessels, so created by withdrawing vapour from the receiving vessel and forcing it at high pressure into the discharging vessel, the factory shall have the following facilities:-
- (i) Liquid unloading line; having isolation valve; and check valve in line; and
  - (ii) Vapour line with isolation valves.
- c) Loading and unloading operations:- In every factory, where the loading or unloading of flammable liquefied or compressed gas is carried on shall have:
- (i) Written, operating procedures for loading or unloading operation, clearly defining the safety checks and precautions to be observed as well as the responsibilities of the personnel involved in such operation, prepared in English and in the language spoken by majority of workers and given to those concerned and displayed at a prominent place;
    - (a) Flexible hoses used for transfer of flammable liquefied or compressed gas to or from a tank truck or tank wagon shall be,-
    - (b) Designed and constructed in accordance with the Static and Mobile Pressure Vessels (Unfired) Rules, 1981;
    - (c) A means of identification; and
    - (d) periodically checked for electrical and mechanical continuity and recorded in the register;
  - (ii) Provision for connecting and disconnecting hoses (only non-sparking type of tools shall be used);
  - (iii) The tank-truck shall have a starter motor of non-sparking or flameproof type;
  - (iv) The tank-truck shall be parked on a levelled ground and vehicle arresting shall be placed at front and rear wheels to arrest the vehicle movement;
  - (v) The engine of the vehicle shall be stopped and all the electrical equipment isolated, before starting the loading or unloading or unloading operation; Before starting the loading or unloading operation, static charges shall be effectively discharged by bonding and earthing of the storage vessels with the road tankers or wagons and the ground;
  - (vi) The road tanker or wagon shall be electrically bonded at marked specified points with the fixed grounding system;
  - (vii) Authorised person shall supervise the transfer operation and respond immediately in the event of an emergency;
  - (viii) During loading operation, the pressure within the receiving tank-truck vessel shall be observed to ensure that it falls within the start-off or triggering discharge-pressure of the relief valve. Filling rate shall be regulated accordingly;
  - (ix) The receiving vessel which is having an internal pressure of less than 1kg/cm<sup>2</sup> shall not be taken in for filling. Such vessel shall be checked for Oxygen content or explosive mixture content and purged, if necessary;
  - (x) Filling or transfer operation shall be done only during day time where visibility is adequate;
  - (xi) Filling or transfer operation shall be stopped immediately in the event of
    - (a) Uncontrolled leakage occurring;
    - (b) A fire occurring in the vicinity;
    - (c) Lightning and thunder-storm;
  - (xii) The "Safe Operating Procedure" for unloading shall be displayed in English, Malayalam and Hindi and in the language understood by majority of workers in the unloading area.

12. Maintenance and Inspection:- In every factory where highly flammable liquid or flammable liquefied or compressed gas is stored in bulk.-
- a) The storage vessels and the safety fittings and instruments shall be tested periodically as per the requirements under relevant statutes as applicable and records with such particulars of testing maintained;
  - b) Loading or unloading hoses shall be tested at least once in every six months;
  - c) The earth pits shall be maintained well and the earth resistance measured at least once in every 12 months; and records kept in this regard;
  - d) The foundation and support of the storage vessels shall be checked once in a year for differential settlement due to any unsettling at sub-soil level or of any other cause;
  - e) The cathodic protection, if provided, shall be monitored periodically and maintained well for effectiveness;
  - f) The gas detection system shall be checked and calibrated periodically; and
  - g) The fire water system which includes fire water pumps, fire hydrant or monitor, piping network and water sprinkler or deluge system shall be checked periodically and maintained well for its fail-safe operation in adversaries.
13. Training: - The occupier of every factory in which highly flammable liquid or flammable liquefied or compressed gases are stored in bulk shall ensure that-
- a) The supervisory or managerial personnel are adequately trained in all aspects of safe storage and handling of highly flammable liquid or flammable liquefied or compressed gas and in the disaster control, preparedness and response.
  - b) Regular training programmes are conducted on loading or unloading operation, draining procedure, commissioning and decommissioning procedures, "hot work" permit system, fire-fighting and emergency combat operation, health hazards, safe working procedures, safe behaviours at work place etc., for-
    - (i) Regular workers;
    - (ii) Workers including daily, part-time, badly, casual or any contractual fringe of that kind, etc., and
    - (iii) Security staff;
  - c) Full-scale emergency mock drills, simulating leakage of flammable gas and the consequences, are conducted in the plant at least once in every six months and the level of preparedness, and the adequacy of combat measures, assessed and modified from time to time, and any deviations, or defects observed during such mock-drills rectified forth-with.
14. Exemption:- If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or intermittent nature 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/she 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/she may specify therein.

SCHEDULE - XXVII  
(See rule 84)  
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, moulding composition or other 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 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—
- (i) Any process with respect to the smelting and manufacture of lead and the Electric Accumulators;
  - (ii) any process for the purposes of a printing works; or
  - (iii) any smelting process in which metal is obtained by a reducing operation or any process incidental to such operation; or
  - (iv) the production of steel in the form of ingots; or
  - (v) any process in the course of the manufacture of solder or any process incidental to such manufacture; or
  - (vi) the melting 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. Definitions – For the purpose of this schedule-
- a) “approved respirator” means a respirator of a type approved by the Chief Inspector-cum-Facilitator.
  - b) “cupola or furnace” include 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 (a) the removal of metal from a casting when performed incidentally in connection with the machining or assembling of castings after they have been dressed or fettled, or (b) any operation which is 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, loan-moulding or by centrifugal casting in metal moulds line with sand or die-casting including pressure die-castings 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 the course of, such production, namely, the preparation of moulds and cores, knock out operations and dressing or fettling operations;
  - e) “knock out operation” means all methods of removing castings from moulds, and the following operations, when done in connection therewith namely stripping coring-out and the removal of runners and risers;
  - 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 –
- a) 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 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 –
    - (i) Zirconium Silicate (Zircon)
    - (ii) Calcined China clay
    - (iii) Calcined aluminous fireclay
    - (iv) Sillimanite
    - (v) Calcined or fused alumina

- (vi) Olivine
  - (vii) Natural sand
  - b) 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 places, 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 –
- a) Floors of indoor work places in which the processes are carried on other than parts which are of sand, shall have an even surface of hard material.
  - b) 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.
  - c) 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 work places–
- a) All accessible parts of the walls of every indoor work place in which the process is 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 meters from the floor, at least once in every period of 14 months. A record of carrying out of every such effective cleaning in pursuance of this paragraph including the date (which shall be not be less than 5months or more than 9 months after the last immediately preceding washing, cleaning, or other treatment).
  - b) Effective cleaning by a suitable method shall be carried out at least once in every working day of all accessible parts of the floor of every indoor work place in which the process is carried on other than parts which are of sand; and the parts which are of sand shall be kept in good order.
7. Manual operations involving molten metal–
- a) 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:
    - (i) Which is adequate for the safe performance of the work, and
    - (ii) Which, so far as reasonably practicable, is kept free from obstruction
  - b) Any operation involving the carrying by hand of a container holding molten metal shall be performed on a floor all parts of which, where any person while engaged in the operation shall be in 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 working space on a different level from the floor, being a space provided with a safe means of access from the floor or any person while engaged in the operation.
8. Gangways and pouring aisles –
- a) In every workroom to which this paragraph applies constructed, reconstructed or converted for the 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 gangways shall be provided and properly maintained which-

- (i) Shall have an even surface of hard materials and shall, in particular not be of sand or have on them more sand than if necessary to avoid risk of flying metal from accidental spillage;
  - (ii) Shall be kept so far as if reasonably practicable free from obstruction;
  - (iii) If not used for carrying molten metal, shall be at least 920 millimetres in width;
  - (iv) If used for carrying molten metal shall be :-
    - (a) Where truck ladles are used exclusively at least 600 millimetres wide than the overall width of the ladle;
    - (b) Where hand shanks are carried by not more than two men at least 920 millimetres in width.
    - (c) Where hand shanks are carried by more than two men at least 1.2 meters in width and
    - (d) Where used for simultaneous travel in both directions by men carrying hand shanks at least 1.8 meters in width.
- b) In work room 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-
- (i) 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 on flying metal from accidental spillage.
  - (ii) Shall be kept so far as reasonably practicable free from obstruction;
  - (iii) If molten metal is carried in hand ladles or bull ladles by not more than two men per ladle, shall be at least 460 millimetres wide, but where any mild alongside the aisle are more than 510 millimetres above the floor of the aisle the aisle shall be not less than 600 millimetres wide.
  - (iv) If molten metal is carried in hand ladles or bull ladles by more than two men per ladle shall 760 millimetres wide.
  - (v) Molten metal is carried in crane trolley or truck ladles, shall be of a width adequate for the safe performance of the work.
- c) Requirements of sub-paragraph (1) and (2) 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, at the case may be, that part of a workroom has to be of sand.
- d) 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 work room 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 the schedule.
9. Work near cupolas and furnaces - No person shall carry out any work within a distance of 4 meters 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 meters 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–
- a) Open coal coke or wood fire 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.
  - b) 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.
  - c) 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.
  - d) All knock out operations shall be carried out-
    - (i) in a separate part of the foundry suitably partitioned off being a room or part in which so far as is reasonably practicable, effective and suitable local exhaust, ventilation and a high standard of general ventilation are provided; or
    - (ii) in an area of the foundry in which so far reasonably practicable, effective suitable local exhaust ventilation is provided, or where compliance with this requirement is not reasonably practicable a high standard of general ventilation is provided.
  - e) All dressing of fettling operations shall be carried out -
    - (i) in a separate room or in a separate part of the foundry suitably partitioned off; or
    - (ii) 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–
- a) All ventilation plant used for the purpose of extracting, suppression or controlling dust or fumes shall be properly maintained.
  - b) All ventilating plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be examined and inspected once in every week by a responsible person. It shall be thoroughly examined and tested by a competent person at least once in every period of twelve months and particulars of the results of every such examination and test shall be entered in an approved register which shall be available for inspection by an Inspector-cum-Facilitator. Any defect found on any such examination and test shall be immediately reported in writing by the person carrying out the examination and test to the occupier or manager of the factory.
12. Protective equipment–
- a) The occupier shall provide and maintain suitable protective equipment specified for the protection of workers.
    - (i) Suitable gloves or other protection for the hands for workers engaged in handling any hot material likely to cause damage to the hands by burn, scald or scar or in handling pig iron, rough castings or other articles likely to cause damage to the hands by cut or abrasion.
    - (ii) Approved respirators for workers carrying out any operation creating a heavy dust concentration which cannot be dispelled quickly and effectively by the existing ventilation arrangements.
  - b) No respiration provided for the purposes of clause 1(b) worn by a person shall be worn by another person if it has not since been thoroughly cleaned and disinfected.
  - c) Persons who for any of their time:-
    - (i) work at a spout of or attend to a cupola or furnace in such circumstances that material therefrom may come into contact with the body, being material at such a temperature its contact with the body would cause a burn; or

- (ii) is engaged in, or in assisting with the pouring of molten metal; or
  - (iii) carries by hand or move by manual power any ladle or mould contain molten; or
  - (iv) is engaged in knocking out operations involving material at such a temperature that its contact with the body would cause a burn, shall be provided with suitable footwear and gaiters which worn by them prevent so far as reasonably practicable risk of burn to his feet and ankles.
- d) Where appropriate, suitable screens shall be provided for protection against flying material (including splashes of molten metal and sparks and chips thrown off in the course of any process).
  - e) The occupier shall provide and maintain suitably accommodation for the storage and take adequate arrangements for cleaning and maintaining of the protective equipment supplied in pursuance of this paragraph.
  - f) Every person shall make full and proper use of the equipment provided for his protection in pursuance of sub-paragraph (1) and (4) and shall without delay report to the occupier manager, or other appropriate person any defect in or, loss of, the same.
13. Washing and bathing facilities–
- a) There shall be provided and maintained in clean state and good repair for the use of all workers employed in the foundry-
    - (i) a wash place under cover with either –
      - (a) 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
      - (b) 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 meters apart; and
    - (ii) not less than one half of the total number of washings placed provided under clause (1) shall be in the form of bathrooms.
    - (iii) a sufficient supply of clean towels made of suitable material changed daily with sufficient supply of nail brushes and soap.
  - b) The facilities provided for the purpose of sub-paragraph (1) 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 equipments left out of doors (including material & 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 is reasonably practicable such access so 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 examination and tests.-
- a) The occupier of every factory to which the schedule applies shall-
    - (i) employs a qualified Factory Medical Officer or medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the chief Inspector-cum-Facilitator of factories; and
    - (ii) Provided to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a)

- b) The record of medical examination and appropriate test carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector-cum-Facilitator of Factories, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.
18. Medical Examination by the Medical Officer.
- a) Every worker employed in a laundry shall be examined by a Medical Officer within 15 days of his first employment. Such medical examination shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical Officer.
- b) Every worker employed in the said processes shall be re-examined by a Medical Officer at least once in every 12 months. Such examination shall, wherever the Medical Officer considers appropriate, include all the testes specified under sub-paragraph (1) except chest X-ray which will be once in three years.
- c) The Medical Officer after examining a worker, shall issue a certificate of Fitness in FORM-VI. 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 (1) and (2) including the nature and the results of the tests shall also be entered by the Medical Officer in health register in FORM-V.
- d) The certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- e) If at any time the Medical Officer 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/she 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/she considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternative placement facility unless he/she is fully incapacitated in the opinion of the Medical Officer in which case the person affected shall be suitably rehabilitated.
- f) No person who has been found unfit to work as said in sub-paragraph (5) shall be reemployed or permitted to work in the said processes unless the Medical Officer, after further examinations, again certified him fit for employment in those processes.
19. 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 protection of the workers in the factory, the Chief Inspector-cum-Facilitator may be a certificate in writing, which he/she may at his discretion revoke at any time, exempt such factory from all or any such provisions subject to such conditions, if any, as he/she may specify therein.

### SCHEDULE – XXVIII

(See rule 84)

#### TEXTILE MACHINERY EXCEPT MACHINERY USED IN JUTE MILLS

1. Application: - This Schedule shall apply to the machinery in factories engaged in manufacturing or processing of textiles other than jute textiles excluding the machinery in factories engaged exclusively in the manufacture of synthetic fibres.
2. Definitions- For the purposes of this Schedule.
- a) "Calendar" means a set of heavy rollers mounted on vertical side frames and arranged to pass cloth between them which may have two to ten rollers or bowls some of which may be heated:

- b) "Card" means a machine consisting of cylinders various sizes and includes flats. Covered with card clothing and set in relation to each so that fibres in; staple form may be Separated into individual relationship
- c) "Card clothing" means the material with which the surfaces of the cylinder, Doffer flats, etc. of a card are covered and consists of a thick foundation material made of either textile fabrics, through which many fine closely spaced specially bent wires or mounted saw-toothed wires are passed;
- d) "Comber" means a machine for combing fibres of cotton. Wool etc. The essential parts whereof are device for feeding forward a fringe of fibres at regular intervals and an arrangement of combs or pins, which at the right time, pass through the fringe and by which tangled fibres. Short fibres, and nips are removed and the long fibres are laid parallel;
- e) "Combing machinery" means a general classification of machinery, including combers, silver lap machines. Ribbon lap machines and gill boxes, but excluding cards;
- f) "Continuous bleaching range" means a machine used for bleaching of cloth in rope or open-width form;  
Explanation: - The action of such machines is somewhat like that of a wool card, but it is much more severe in that the various rolls are covered with garnet wire instead of card clothing;
- g) "gill box" means a machine used in the worsted system of manufacturing yarns which functions to arrange it in a parallel order and essentially, it consists of a pair of feed rolls and a series of follower where the followers move at a faster surface speed and perform as combine action;
- h) "in-running rolls" means any pair of rolls or drums between which there is a 'nip';
- i) "Inter-locking arrangement" means a device that prevents the setting in motion of a dangerous part of a machine or the machine itself while the guard, cover or door provided to safeguard against danger is open or un-locked, and which will also hold the guard, cover or door closed and locked- while the machine or the dangerous part thereof is in motion;
- j) "Kier" means large metal vat, usually a pressure type in which fabrics may be boiled out, bleached etc.
- k) "loom" means a machine for effecting the interlocking of two series of yarns crossing one another at right angles by which the warp yarns are wound on a warp beam and pass through headless and reads and the filling is shot across in a shuttle and settled in place by read and slay, and the fabric is wound on a cloth beam;
- l) "mule" means a type of spinning frame having a head stock and a carriage sits two main sections, the head stock is stationery and the carriage is movable and its carries the spindles which draft and spin the roving into yarn and extends over the whole of the machine, moves slowly toward and away from the head stock during the spinning operation;
- m) "mercerizing range" means a 3-bowl mangle, a tenter frame, and a number of boxes for washing and scouring, the whole set up where of is in a straight line and all parts operate continuously; Note :-The combination is used to saturate the cloth with sodium hydroxide, stretch it while saturated and washing out most of the caustic before releasing tension;
- n) 'Nip" means the danger zone between two rolls or drums, which by virtue of their positioning and movement create a nipping hazard; (q) "Openers and pickers" means a general classification of machinery, which includes breaker pickers, intermediate pickers, finisher pickers, single process pickers, willow machines, card and picker waste cleaners, thread extractors shredding machines, roving waste openers, shoddy pickers, bale breakers, feeders, vertical openers, lattice cleaners horizontal cleaners and any similar machinery equipped with either cylinders, screen section calender section, rollers or beaters used for the preparation of stock for further processing; (r) "paddler" means a trough for a solution and

- two or more squeeze rolls between which cloth passes after being passed through a mordent or dyebath;
- o) "Plating machine" means a machine used to lay cloth into folds of regular length for convenience of subsequent process or use;
  - p) "ribbon lapper" means a machine or a part of a machine used to prepare laps for feeding a cotton comb the purpose of which is to provide a uniform lap in which the fibres have been straightened as much as possible;
  - q) "rotary staple cutter" means a machine consisting of one or more rotary blades used for the purpose of cutting textile fibres into staple lengths;
  - r) "roller printing machine" means a machine used for printing fabrics and consisting of a large central cylinder, or pressure bowl around the lower part of the perimeter of which is placed a series of engraved colour rollers (each having a colour trough), a furnisher roller, doctor blades, etc.;
  - s) "silver lapper" means a machine or a part of a machine in which a number of parallel card silvers are drafted slightly, laid side by side in a compact sheet and wound into a cylindrical package;
  - t) "starch mangle" means a mangle which is use specifically for starching cotton goods, and generally consists of two large rolls and a shallow open vat with several immersion rolls;
  - u) "sanforizing machine" means a machine consisting of a large steam-heated cylinder and endless, thick woollen felt blanket which is in close contact with the cylinder for most of its perimeter and an electrically heated shoe which presses the cloth against the blanket while the latter is in a stretched condition as it curves around feed-in roll;
  - v) "shearing machine" means a machine used for shearing cloth in which cutting action is provided by a number of steel blades spirally mounted on a roller which rotates in close contact with a fixed edge blade.
  - w) "singeing machine" means a machine which comprises of a heated roller a plate, or an open gas flame by which the cloth or yarn is rapidly passed over the roller or the plate or through the open gas flame to remove fuzz of hairiness by burning;
  - x) "slasher" means a machine used for applying a size mixture to warp yarns which essentially consists of a stand for holding section beams a size box, one or more cylindrical dryers or an enclosed hot air dryer, and a beaming end for winding the yarn on the loom beams;
  - y) "tenter frame" means a machine for drying cloth under tension which essentially consists of a pair of endless travelling chains fitted with clips of fine pins and carried on tracks and the cloth is firmly held at the selvages by the two chains which diverge as they move forward so that the cloth is brought to the desired width;
  - z) "warper" means a machine for preparing and arranging the yarn intended for the warp of fabric, specifically a beam warper; and
  - aa) (aa) "Water mangle" means a calendar having two or more rolls used for squeezing water form fabrics before drying or for the finishing of various fabrics.
3. General safety requirements:-
- a) Every textile machine shall be provided with individual mechanical or electrical means for starting and stopping such machines and the belt shifter on machines driven by belts and shafting should be provided with a belt shifter lock or an equivalent positive locking device.
  - b) Stopping and starting handles or other controls shall be of such design and so positioned as to prevent the operator's hand or fingers from striking against any moving part or any other part of the machine.
  - c) All belts, pulleys, gears, chains, sprockets wheel and other dangerous moving parts of machinery which either form part of the machinery or are used in association with it, shall be securely guarded.

4. Openers and pickers ;-( 1) In all operating or picker machinery;-
- a) Beaters and other dangerous parts shall be securely fenced by guards so as to prevent contact with them; and
  - b) Guards and doors or cover of openings giving access to any dangerous part of the machinery shall be provided with inter-locking arrangement:  
Provided that
    - (i) in the case of doors or covers of openings giving access to any dangerous part, other than beater covers, instead of the inter, locking arrangement. Such openings may be so fenced by guards which prevent access to any such dangerous part and which is either kept positively locked in position or fixed in such a manner that it cannot be removed without the use of hand tools.
    - (ii) The feed rolls on all opening and picking machinery shall be covered with a guard designed to prevent the Operator from reaching the nip while the machinery is in operation.
    - (iii) The lap forming rollers shall be fitted with a guard or cover which shall prevent access to the nip at the intake of the lap roller and fluted roller as long as the weighted rack is down and the guard or cover shall be so locked that it cannot be raised until the machine is stopped, and machine cannot be started until the Cover of guard is closed:  
Provided that the foregoing provision shall not apply to the machines equipped with automatic lap forming devices:  
Provided further that any such machine equipped with automatic lap forming device shall not be used unless the automatic lap forming device is in efficient working order.
5. Cotton Cards. -
- a) all cylinder doors shall be secured by an interlocking arrangement which shall prevent the door being opened until the cylinder has ceased to revolve and shall render it impossible to restart the machine until the door has been closed:  
Provided that the latter requirement in respect of the automatic locking device shall not apply while stripping or grinding operations are carried out:  
Provided further that stripping or grinding operation shall be carried out only by specially trained adult workers wearing tight "fitting clothing"
  - b) The licker-in shall be guarded so as to prevent access to the dangerous parts.
  - c) Every card shall be equipped with an arrangement that would enable the card cylinder to be driven by power during stripping or grinding operations without having to either shift the main belt to the fast pulley of the machine or dismantle the interlocking mechanism and such an arrangement shall be used only for strip or grinding operations.
6. Garnett Machines.
- a) Garnett licker-ins shall be enclosed and the garnet fancy rolls shall be enclosed by guards and shall be installed in a way that keeps work rolls reasonably accessible for removal or adjustment.
  - b) The underside of the garnet shall be guarded by a screen mess or other form of enclosures to prevent access.
7. Gill boxes.
- a) The feed and shall be guarded so as to prevent fingers being caught in the pins of the intersecting fillers.
  - b) All nips of in-running rolls shall be guarded by Suitable nip guards conforming to the following specifications.  
Any opening which the guard may permit when fitted in position shall be so restricted with respect to the distance of the opening from any nip point through that opening from any nip point through that the maximum width of the opening shall not exceed the following :-

Distance of opening from nip point	Maximum width of opening	0 to 38mm	6 mm
39 to 63mm	10mm		
64 to 88mm	13mm		
89 to 140mm	15mm		
141 to 165mm	19 mm		
166 to 190mm	22mm		
191 to 215mm	32mm		

8. Silver aid ribbon lappers (cotton). – The cylinder drums and the laps pool shall be provided with a guard to prevent access to the nip between the in running rolls.
9. Speed frame Jack Box wheels at the head stock shall band guard shall have interlocking arrangement.
10. Spinning Mules.-Wheels on spinning mule carriages shall be provided with substantial wheel guards, extending to within 6 mm of the rails.
11. Wrappers.- Swivelled double-bar gates shall be installed on all warpers operating in excess of 410 meters minimum and shall have interlocking arrangements, except for the purpose of inching or jogging.
12. Slashers:-
  - a) Cylinder dryers:-
    - (i) All open nips of in running rolls shall be guarded by nip guards conforming to the requirements in clause 7.
    - (ii) When slashers are operated by control levers, these levers shall be connected to a horizontal bar or treadle located not more than 170mm above the floor to control the operation from any point.
    - (iii) Slashers operated by such button control shall have stop and start buttons located at each end of the machine, and additional buttons located on both sides of the machine at the size box and the delivery end and if calendar rolls are used, additional buttons shall be provided at both sides of machines at points near the nips, except when slashers are equipped with an enclosed dryer as in such clause (b).
  - b) Enclosed hot air dryer –
    - (i) All open nips of the top squeezing rollers shall be guarded by nip guards conforming to the requirement specified in sub-clause (2) of clause 7.
    - (ii) When slashers are operated by control layers, these levers shall be connected to a horizontal bar or treadle located not more than 170 cm. above the floor to control the operation from any point.
    - (iii) Slashers operated by push-button control shall have stop and start buttons located at each end of the machine and additional stop and start buttons located on both sides of the machine at intervals spaced not more than 1.83 meters on centres.
13. Looms–
  - a) Each loom shall be equipped with suitable guards designed to minimize the danger from flying shuttles.
  - b) Beam weights for tension in beam shall be of such construction so as prevent it from falling during its adjustment.
14. Valves of Kiers, tanks, and other containers.–
  - a) Each valve controlling the flow of steam injurious gases or liquids into a kier or any other tank or container into which a person is likely to enter in connection with a process, operation, maintenance or for any other purpose, shall be provided with a suitable lock the valve securely in the closed position and retain the key with him before entering the kier tank or container.
  - b) Wherever boiling tanks, caustic tanks and any other containers from which liquids, which are hot, corrosive or toxic, may overflow or splash, are so located that the operator cannot

- see the contents from the floor or working areas, emergency shut off valves which can be controlled from a point not subject to danger of splash shall be provided to prevent danger.
15. Shearing machines: - All revolving blades on shearing machines shall be guarded so that the opening between the cloth surface and the bottom of the guard will not exceed 10mm.
  16. Continuous bleaching range (cotton and rayon):- The nip of all in running rolls on open-width bleaching machine rolls shall be protected with a guard to prevent the worker from being caught at the nip and the guard shall extend across the entire length of the nip.
  17. Mercerizing range (piece goods):-
    - a) A stopping device shall be provided at each end of the machine.
    - b) A guard shall be provided at each end of the frame between the in running chain and the clip opener.
    - c) A nip guard shall be provided for the in-running rolls of the mangle and washers and the guard shall conform to the requirements specified in subclause (2) of clause 7.
  18. Tenter frames:-
    - a) A stopping device shall be provided at each end of the machine.
    - b) A guard shall be provided at each end of the machine frame at the in running chain and clip opener.
  19. Paddlers.-Suitable nip guards conforming to the requirements specified in sub clause (2) of clause 7 shall be provided to all dangerous in-running rolls.
  20. Centrifugal extractors.- 20 Centrifugal extractors.-
    - a) Each extractor shall be provided with a guard for the basket, and the guard shall have interlocked arrangement.
    - b) Each extractor shall be equipped with a mechanically or electrically operated brake to quickly stop the basket when the power driving the basket is shutoff.
  21. Squeezer of wringer extractor, water mangle, starch mangle, backwasher (worsted yarn) crabbing machines and decanting machine: - All in-running rolls shall be guarded with nip guards conforming to the requirements specified in sub-clause (2) of clause 7.
  22. Sanforizing and palmer machine:-
    - a) Nip guards shall be provided on all accessible in-running rolls and these shall conform to the requirements specified in sub-clause (2) of clause 7.
    - b) Access from the sides to the nips of running rolls should be fenced by suitable side guards.
    - c) A safety trip rod, cable or wire centre cord shall be provided across the front and back of all palmer cylinders extending the length of the face of the cylinder, which operate readily whether pushed or pulled and the safety trip shall not be more than 170 cm. Above the level at which the operation stands and shall be readily accessible.
  23. Rope washers:-
    - a) Splash guards shall be installed in all rope washers unless the machine is so designed as to prevent the water or liquid from splashing the operator, the floor or working surface.
    - b) A safety trip rod, cable or wire centre cord shall be provided across the front and back of all rope washers extending the length of the face of the washer which shall operate readily whether pushed or pulled and the safety trip shall be not more than 170 cm. Above the level on which the operator stands and shall be readily accessible.
  24. Laundry washer tumbler or shaker:
    - a) Each drying tumbler, each double cylinder shaker or clothes tumbler, and each washing machine shall be equipped with an interlocking arrangement which will prevent the power operation of the inside cylinder when the outer door on the case or shall is open, and which will also prevent the outer door in the case or shall from being opened without shutting off the power and the cylinder coming to a stop but which should not prevent the movement of the inner-cylinder by means of a hand operated mechanism or an inching device.

- b) Each closed barrel shall also be equipped with adequate means for holding open the doors or covers of the inner and outer cylinders, of shells while it is being loaded or unloaded.
25. Printing machine (roller type)–
- a) All in-running rolls shall be guarded by nip guards conforming to the requirements specified in sub-clause (2) of clause 7
  - b) The engraved roller gears and the large crown wheel shall be guarded.
26. Calendars – The Nip at the in-running side of the rolls shall be provided with a guard extending across the entire length of the nip and arranged to prevent the fingers of the workers from being pulled in between the rolls or between the guard and the rolls, and so constructed that the cloth can be fed into the rolls safely.
27. Rotary staple cutters: - The cutter shall be protected by a guard to prevent hands reaching the cutting zone.
28. Plating machines.- Access to the trap between the knife and card bar shall be prevented by a guard.
29. Hand baling machine. – An angle iron handle-stop guard shall be installed at right angle to the frame of the machine, the stop guard of which shall be so designed and so located that it will prevent the handle from travelling beyond the vertical position should the handle slip from the operator's hand when the pawl has been released from the teeth of the take-up gear.
30. Flat-Work ironer.- Each flat-work or collar ironer shall be equipped with a safety bar or other guard across the entire front of the feed or first pressure rolls, so arranged that the striking of the bar or guard by the hand of the operator or other person will stop the machine. The guard shall be such that the operator or other person cannot reach into the rolls without removing the guard. This may be either a vertical guard on all sides or a complete cover. If a vertical guard is used, the distance from the floor or working platform to the top of guard shall not be less than 1.83 meters."
31. Medical examination and records:-
- a) Every worker employed on machinery to which this schedule applies shall be examined by a medical officer within 15 days of his first employment. Such examination shall include pulmonary test, immunoglobulin test, Audiometry test etc. 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 Medical Officer.
  - b) Every worker employed in the said processes shall be re-examined by a medical officer at least once in every twelve calendar months. Such re-examination shall, wherever the medical officer considers appropriate, include tests as specified in sub- paragraph (1).
  - c) The medical officer after examining a worker, shall issue a Certificate of Fitness in FORM VI. 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 occupier of the factory. The record of each examination carried out under sub paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the medical officer in a health register in FORM-V.
  - d) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - e) If at any time medical officer 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/she 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/she 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/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.

- f) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Medical Officer, after further examination, again certifies him fit for employment in those processes.

### SCHEDULE – XXIX

(See rule 84)

#### PROCESS OF MELTING IN INDUCTION FURNACE

1. Application:  
Provisions of this schedule shall apply to all parts of factories operations where melting of metal is done in induction furnace and other allied processes are carried on.
2. Definitions:
  - a) "Induction Furnace" means furnace in which a strong magnetic field created by passing an electric current through a coil wrapped around the furnace. The magnetic field in turn creates a voltage across, and subsequently an electric current through, the metal to be melted.
  - b) "Coil" means coil of Induction Furnace
  - c) "Ladle" means equipment used to carry melted metal
  - d) "Mould" means moulds made of steel, sand, loam, moulding composition or other mixture of materials.
  - e) "Personal Protective Equipment" Personal Protective Equipment (PPEs) refers to protective clothing, helmets, goggles, or other garments or equipment Designed to protect the wearer's body from injury or infection.
  - f) "Refractory" means lining of refractory bricks made in pit
3. 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.
4. Construction, maintenance of platform and floors–
  - a) The platform of furnace should be of good construction, sound material and adequate strength to withstand explosion
  - b) The platform must be of adequate size to accommodate persons working there and raw material to be charged
  - c) The platform must be provided with at least two stairs
  - a. 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.
  - d) 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.
  - e) 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.
5. Authorised person :–
  - a) No person except those authorised to work on platform or near furnace shall be allowed on the platform or near furnace.
  - b) Person covered under exception of sub-rule (1) must be trained and provided with prescribed personnel protective equipments.

- c) 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 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 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.
6. Maintenance and examination of exhaust plant–
  - a) All ventilation plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be properly maintained.
  - b) 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 a register which shall be available for inspection by an Inspector-cum-Facilitator cum-Facilitator. Any defect found on any such examination and carrying out the examination and test to the occupier of the factory.
7. Ladle–
  - a) Before the ladle is placed for pouring the hot liquid metal, it shall be thoroughly inspected
  - b) Place the ladle below the spout.
  - c) Before pouring is started, it shall be ensured that:
    - (i) Only minimum required nos. of persons shall be present.
    - (ii) They all shall use PPEs like face shield, flame retardant suit, anklets, goggles, hand gloves, helmets and safety shoes.
  - d) Ladle shall be removed only after clearance from the Furnace In-charge.
  - e) Ladle shall not be transported in tilted condition.
8. Operation and Maintenance of furnace:
  - a) The occupier shall operate the furnace as per instructions supplied by manufacturer.
  - b) The occupier shall keep the maintenance of furnace as per maintenance schedule supplied by manufacturer.
  - c) The coil should be checked at regular intervals
  - d) The refractories shall be changed at regular interval
9. Work Permit–

The occupier shall issue work permit to the person supposed to work in confined space, at height or on electric equipments.
10. Washing facilities–

The occupier shall provide and maintain, in a clean state and in good repair for the use of all persons employed a wash place under cover with sufficient supply of water and soap, towel etc.
11. Protective equipment–

The occupier shall provide and maintain suitable PPEs for all persons employed in process as specified in sub-rule (2).
12. Prohibition of employment of pregnant Woman and Adolescent–

No pregnant woman or adolescent shall be employed in any of the process covered by this schedule
13. Medical examination by medical officer–
  - a) Every worker employed in the processes specified in paragraph 1 shall be examined by a medical officer within 15 days of his first employment. Such examinations shall include skin test, audiometric test, Pulmonary test 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 Medical Officer.

- b) Every worker employed in a manganese process shall be re-examined by a medical officer at least once in every 12 months and such examination shall, wherever the medical officer considers appropriate, include all the tests in subparagraph (1).
  - c) The Medical officer after examining a worker, shall issue a Certificate of Fitness in FORM-VI. 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 occupier of the factory. The record of each examination carried out under sub-paragraph (1) and (2) including the nature and the results of these test, shall also be entered by the medical officer in a health register in FORM-V.
  - d) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - e) If at any time the medical officer 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/she 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/she considers that the said person is unfit to work in the said process shall be provided with alternate placement facilities unless he/she is fully incapacitated in the opinion of the medical officer, in which case the person affected shall be suitably rehabilitated.
  - f) 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 Medical Officer, after further examination, again certifies him fit for employment in those processes.
14. Exemptions – 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 be a certificate in writing which he/she 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/she may specify therein.

#### SCHEDULE – XXX

(See rule 84)

#### WOOD WORKING MACHINERY

1. Definitions: -For the purposes of this Schedule:-
  - a) Woodworking machine means a circular saw, band saw, planning machine, chain mortising machine or vertical spindle moulding machine, operating on wood or cork.
  - b) Circular saw means a circular saw working in a bench (including rack bench) but does not include a pendulum or similar saw which is moved towards the wood for the purpose of cutting operation.
    - a. Band saw means a band saw, the cutting portion of which runs in vertical direction but does not include a log saw or band resaving machine.
  - c) Planning machine means a machine for overhand planning or thicknessing or for both operations.
2. Stopping and starting device: - An efficient stopping and starting device shall be provided on every woodworking machine. The control of this device shall be in such a position as to be readily and conveniently operated by the person in charge of the machine.
3. Space around machine: - The space surrounding every wood working machine in motion shall be kept free from obstruction.

4. Floors:- the floor surrounding every woodworking machine shall be maintained in good and level condition, and shall not be allowed to become slippery, and as far as practicable shall be kept free from chips or other loose material,
5. Training and Supervision:-
  - a) No person shall be employed at a woodworking machine unless he/she has been sufficiently trained to under the adequate supervision of a person who has a thorough knowledge of the working of the machine.
  - b) A person who is being, trained to work woodworking machine shall be fully and carefully and the precautions to be observed to secure safe working of the machine.
6. Circular Saws: - Every circular saw shall be fenced as follows:-
  - a) Behind and indirect line with the saw there shall be arriving knife, which shall have a smooth Surface, shall be strong, rigid and easily adjustable and shall also conform to the following conditions:-
    - (i) The edge of the knife nearer the saw shall form as are of a circle having a radius of not exceeding the radius of largest saw used on bench.
    - (ii) The Knife shall be maintained as close as practicable to the saw, having regard to the nature of the work being done at the time and at the level of the bench table the distance between the front edge of the knife and the teeth of the saw shall not exceed 12mm.
    - (iii) For a saw of a diameter of less than 0.6 meter, the knife extend upwards from the bench table to within 25 mm<sup>3</sup> of the top of the saw, and for a saw of a diameter of 0.6 meter or over shall extend upwards from the bench teeth of the saw shall not exceed 12mm.
  - b) The top of the saw shall be covered by a strong and easily adjustable guard with a flange at the side of the saw farthest from the fence. The guard shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.
  - c) The part of the saw below the bench table shall be protected by two plates of metal or other Suitable material one on each side of the saw; such plates shall not be more than 15 cm apart, and shall extend from the axis of the outwards to a distance of not less then .5cm. Beyond the teeth of the saw Metal plates, if not headed, shall be of a thickness of at least .25 cm. Or if headed be of a thickness of at least.125centimeters.
7. Push Sticks: - A push stick or other suitable appliance shall be provided for use at every circular saw and at every vertical spindle molding machine to enable the work to be done without unnecessary risk.
8. Band Saws: - Every band saw shall be guarded as follows:-
  - a) Both sides of the bottom pulley shall be completely encased by sheet or expanded metal or other suitable material.
  - b) The front of the top pulley shall be covered with sheet or expanded metal or other suitable material.
  - c) All portions of the blade shall be enclosed or otherwise securely guarded except the portion of the blade between the bench table and the top guide.
9. Planing Machines-
  - a) A planing machine (other than a planing machine which is mechanically fed) shall not be used for overhand planing unless it is fitted with a cylindrical cutter block.
  - b) Every planing machine used for over hand planing shall be provided with a "bride" guard capable of covering the full length and breadth of the cutting slot in the bench, and so constructed as to be easily adjusted both in a vertical and horizontal director.
  - c) The feed roller of every planting machine used for thicknessing except the combined machine for overhand planing and thicknessing, shall be provided with an efficient guard.

10. Vertical spindle moulding machines:-
  - a) The cutter of every vertical spindle moulding machine shall be guarded by the most efficient guard having regard to the nature of the work being performed.
  - b) The wood being moulded at vertical spindle moulding shall. If practicable be held in a jig or holder of such construction as to reduce as far as possible the risk of accident to the worker.
11. Chain mortising machines: -The chain of every chain mortising machine shall be provided with a guard which shall enclose the cutters as far as practicable.
12. Adjustment and maintenance of guards. The guards and other appliances required under this Schedule shall be maintained in an efficient state. Constantly kept in position while the machinery in motion, and so adjusted as to enable the work to be done without unnecessary risk.
13. Exemption:- Paragraphs 6, 8, 9, and 10 shall not apply to an woodworking machine in respect of which it can be proved that other safeguards are provided, maintained and used which render the machine as safe as it would be if guarded in the manner prescribed in this Schedule.
14. Medical examination and records:-
  - a) Every worker employed on machinery to which this schedule applies shall be examined by a medical officer within 15 days of his first employment. Such examination shall include pulmonary test, immunoglobulin test, Audiometry test etc. 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 Medical Officer.
  - b) Every worker employed in the said processes shall be re-examined by a medical officer at least once in every twelve calendar months. Such reexamination shall, wherever the medical officer considers appropriate, include tests as specified in sub- paragraph (1).
  - c) The medical officer after examining a worker shall issue a Certificate of Fitness in FORM-VI. 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 occupier of the factory. The record of each examination carried out under sub paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the medical officer in a health register in FORM-V.
  - d) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - e) if at any time medical officer 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/she 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/she 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/she is fully incapacitated in the opinion of the Medical Officer, in which case the person affected shall be suitably rehabilitated.
  - f) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Medical Officer, after further examination, again certifies him fit for employment in those processes.
15. Appointment of person on machinery:-
  - a) No person shall be allowed to work on machinery specified in this Schedule unless he/she:-
    - (i) has attained the age of eighteen years;
    - (ii) has been trained in accordance with the sub-paragraph (2).
  - b) The training shall include suitable and sufficient practical instructions in the matter in relation to each type of woodworking machinery and safety device.

SCHEDULE – XXXI  
(See rule 84)  
RUBBER MILLS

1. Installation of machines: - Mills for breaking down, cracking, grating, mixing, refining and warming rubber or rubber compounds shall be so installed that the top of the front roll is not less than 85cm. above the floor or working level. Provided that in existing installations where the top of the front roll is below this height a strong rigid distance bar shall be fitted across the front of the machine in such position that the operator cannot reach the nip of the rolls.
2. Safety devices:-
  - a) Rubber Mills shall be equipped with-
    - (i) Hoppers so constructed or guarded that it is impossible for the operator to come into contact in any manner with the nip of the rolls.
    - (ii) Horizontal-safety trip rods or tight wire cables across both front and rear which will when pushed or pulled, operate instantly to disconnect the power and apply the brakes or to reverse the rolls.
  - b) Safety trip rods or tight wire cables on rubber mills shall extend across the entire length of the face of the rolls and shall be located not more than 1.75 meter above the floor or working level.
  - c) Safety-trip rods and tight wire cables on all rubber mills shall be examined and tested daily in the presence of the Manager or other responsible person and if any defect is disclosed by such examination and test the mill shall not be used until such defect has been remedied.

SCHEDULE – XXXII  
(See rule 84)  
CENTRIFUGAL MACHINES

1. Definition: -“Centrifugal Machines” include centrifugal extractors, separators and driers.
2. Every part of a centrifugal machine shall be
  - a) Of good design and construction and of adequate strength;
  - b) Properly maintained; and
  - c) examined thoroughly by a competent person at regular intervals.
3. Interlocking guard for drum or basket-
  - a) The cage housing, the rotating drum or basket of every centrifugal machine shall be provided with a strong lid. The design, construction of the cage as well as the lid should be such that no access is possible to the drum or basket when the lid is closed.
  - b) Every centrifugal machine shall be provided with an efficient interlocking device that will effectively prevent the lid referred to in sub-paragraph (1) from being opened while the drum or basket is in motion and prevent the drum or basket being set in motion while the lid is in the open position.
4. Braking arrangement:- Every centrifugal machine shall be provided with an effective arrangement capable of bringing the drum or basket to rest within as short a period of time as reasonably practicable after the power is cutoff.
5. Operating speed:- No centrifugal machine shall be operated at a speed in excess of the manufacturer's rating which shall be legibly stamped at easily visible places both on the inside of the basket and on the outside of the machine casing.
6. Exceptions:—Sub-paragraph (2) of paragraph 3, paragraphs 4 and 5 shall not apply in case of top lung machines or similar machines used in the sugar manufacturing industry.

SCHEDULE – XXXIII  
(See rule 84)  
POWERS PRESSES

1. Application: - This Schedule shall apply to all types of power presses including press brakes, except when used for working hot metal.
2. Definition: -For the purpose of this Schedule,-
  - a) " approved" means approved by the Chief Inspector-cum-Facilitator;
  - b) "fixed fencing" means fencing provided for the tools of a power press being fenced which has no moving part associated with or dependent upon the mechanism of a power and includes that part of a closed tool which acts as a guard;
  - c) "power press" means a machine used in metal or other industries for moulding, pressing, blanking, raising, drawing and similar other purposes;
  - d) "safety device" means the fencing and any other safeguard provided for the tools of a power press.
3. Starting and stopping mechanism: - The starting and stopping mechanism shall be provided with a safety stop so as to prevent over running of the press or descent of the ram during tool shutting. Etc.
4. Protection of tool and die:-
  - a) Each press shall be provided with a fixed guard with slip plate on the underside enclosing the front and all sides of the tool.
  - b) Each die shall be provided with a fixed guard surrounding its front and sides, and extending to the back in the form of a tunnel through which the pressed article falls to the rear of the press.
  - c) The design, construction and mutual position of the guards referred to in sub- Paragraphs (1) and (2) shall be such as to preclude the possibility of the worker's hand or fingers reaching the danger zone.
  - d) The machine shall be fed through a small aperture at the bottom of the dye guard, but awide raperture may be permitted for second or subsequent operations if feeding is done through a chute.
  - e) Notwithstanding anything contained in sub-paragraphs (1) and (2) an automatic or an interlocked guard may be used in place of a fixed guard, but where such guards are used they shall be maintained in an efficient working condition and if any guard develops a defect, the power shall not be operated unless the defect guard is removed.
5. Appointment of persons to prepare power presses for use:-
  - a) Except as provided in sub-paragraph (4) of paragraph 4, no person shall set, re-set, adjust or try out the tools on a power press or install or adjust any safety device thereon, being installation or adjustment preparatory to production of die proving, or carry out an inspection and test of any safety device thereon required by paragraph 8 unlesshe/she:-
    - (i) has attained the age of eighteen years;
    - (ii) has been trained in accordance with the sub-paragraph (2);and
    - (iii) has been appointed by the occupier of the factory to carry out those duties in respect of the class or description of power press or the class or description of safety device, as the case may be belongs; and the name of every such person shall be entered in a register in Form-48.
  - b) The training shall include suitable and sufficient practical instructions in the matter in relation to each type of power press and safety device in respect of which it is proposed to appoint the person being trained.
6. Examination and testing of power presses and safety devices:
  - a) No power press or safety device shall be taken into use in any factory for the first time in that factory or in case of a safety device for the first time on any power press, unlessit has

- been thoroughly examined and tested, in the case of a power press, after installation in the factory or in the power press in connection with which it is to be used.
- b) No power press shall be used unless it has been thoroughly examined and tested by a competent person within the immediately preceding period of twelvemonths.
  - c) No power press shall be used unless every safety device (other than fixed fencing) there on has with in the immediately preceding period of six months when in position on that power press, been thoroughly examined and tested by a competent person.
  - d) The competent person carrying out an examination and test under the foregoing provision shall make a report of examination and test containing the following particulars and every such report shall be kept readily available for inspection;
    - (i) Name of the occupier of the factory;
    - (ii) Address of the factory;
    - (iii) Identification number or mark sufficient to identify the power press or the safety device, as the case may be;
    - (iv) Date on which the power press or the safety device was first taken into use in the factory;
    - (v) The date of each periodical thorough examination carried out as per requirements of sub-paragraph (2) above;
    - (vi) Particulars of any defects affecting the safe working of the power press or the safety device found during such thorough examinations and steps taken to remedy such defects.
7. Defect disclosed through examination and tests:-
- a) Where any defect is disclosed in any power press or in any safety device by any examination and test under paragraph 6 and in the opinion of the competent person carrying out the examination and test, either:-
    - (i) the said defect is a cause of danger to workers and in consequence the power press or safety device, as the case may be ought not to be used until the said defect has been remedied; or
    - (ii) the said defect may become a cause of danger to workers and in consequence the power press or safety device as the case may be, ought not to be used after the expiration of a specified period unless the said defect has been remedied, such defect shall, as soon as possible after the completion of the examination and test, be notified in writing by the competent person to the occupier of the factory and in the case of a defect falling within clause (b) of this sub-paragraph, such notification shall include the period within which, in the opinion of the competent person, the defect ought to be remedied.
  - b) In every case where notification has been notified under this paragraph, a copy of the report made under sub-paragraph, a copy of the report made under sub-paragraph (4) of paragraph 6 shall be sent by the competent person to the Inspector-cum-Facilitator of the concerned area within fourteen days of the completion of the examination and test.
  - c) Where any such defect is notified to the occupier in accordance with the foregoing provisions of this paragraph, the power press or safety device as the case may be, having the said defect, shall not be used;
    - (i) in the case of a defect falling within clause (a) of sub-paragraph (1) until the said defect has been remedied; and
    - (ii) in the case of defect falling within clause (b) of sub-paragraph (1) until the said defect has been remedied after the expiration of the specified period.
  - d) As soon as is practicable, after any defect of which notification has been notified under sub-paragraph (1), has been remedied, a record shall be made by or on behalf of the occupier stating the measures by which and the date on which the defect was remedied.

8. Inspection and test of safety devices:
- a) No power press shall be used after the setting, resetting or adjustment of the tools thereon unless a person appointed or authorized for the purpose under paragraph 5 has inspected and tested every safety device thereon while it is in position on the said power press and has certified it to in order:  
 Provided that no inspection, test and certificate shall be required where any adjustment of the tools has not caused or resulted in any alteration to or disturbance of any safety device on the power press, and, if after the adjustment of the tools, the safety device remain, in the opinion of the said person in efficient working order.
  - b) Every power press and every safety devices thereon while it is in position on the said power press shall be inspected and tested by a trained person everyday.
9. Defects disclosed during an inspection and test:-
- a) Where it appears to any person as are sult of any inspection and test carried out by him under paragraph 8 that any necessary safety device is not in proper position on a power press or that any safety device which is in position on a power press, is not in his opinion suitable he/she shall notify the same to the manager forth with.
  - b) Except as provided in sub-paragraph (3) where any defect is disclosed in a safety device any inspection and test under paragraph 8, the person carrying out the inspection and test shall notify the same to the manager forth with.
  - c) Where any defect in a safety device is the subject of a notification in writing under paragraph 7 by virtue of which the use of the safety device may be continued during the specified period without the said defect having been remedied, the requirement in sub- paragraph (2) of this paragraph shall not apply to the said defect until the said period has expired.
10. Identification of power presses and safety devices:-For the purpose of identification every power press and every safety device provided for the same, shall be distinctively and plainly marked.
11. Training the instructions to operators:- The operators shall be trained and instructed in the safe method of work before starting work on any power press.
12. Exemptions:-
- a) If in respect of any factory, the Chief Inspector-cum-Facilitator of Factories is satisfied that owing to the circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this schedule are not necessary for the protection of the workers employed on any power press or in the factory, the Chief Inspector-cum- Facilitator may by a certificate in writing (which he/she may in his discretion revoke at any time), exempt such factory from all or ay of such provisions subject to such conditions, if any, as he may specify therein.
  - b) Where such exemption is granted, a legible copy of the certificate, showing the conditions if any, subject to which it has been granted, shall be kept posted in the factory on a place where it may be conveniently read by the persons employed.

#### SCHEDULE – XXXIV

(See rule 84)

#### SHEARS SLITTERS AND GUILLOTINE MACHINES

1. Definitions:-For the purpose of this schedule:-
- a) "guillotine" means a machine ordinarily equipped with straight, bevel edged blade operating Vertically against a stationery resisting edge and used for cutting metallic or non-metallic or non-metallic substances;
  - b) "Shears" or "shearing machine" means a machine ordinarily equipped with straight, bevel edged blades operating vertically against resisting edged, or with rotary, over lapping cutting wheels and used for shearing metals or nonmetallic substances; and

- c) "Slitter" or slitting machine" means a machine ordinarily equipped with circular disc- type knives, and used for trimming or cutting into metal or nonmetallic substances or for slitting them into narrow strips; for the purpose of this schedule, this term includes bread or other food slices equipped with rotary knives or cutting discs.
2. Guillotine and Shears:-
- a) Where practicable, a barrier metal guard of adequate strength shall be provided at the front of the knife, fastened to the machine frame and shall be so fixed as would prevent any part of the operator's body to reach the descending blade from above, below or through the barrier guard or from the sides:  
 Provided that in case of machines used in the paper printing and allied industries, where a fixed barrier metal guard is not suitable on account of the height and volume of the material being bed, there shall be provided suitable starting devices which require simultaneous action of both the hands of the operator or an automatic device when will remove both the hands of the operator from the danger zone at every descent of the blade.
- b) At the back of such machines, an inclined guard shall be provided over which the slit pieces would slide and be collected at a safe distance in a manner as would prevent a person at the back from reaching the descending blade
- c) Power-driven guillotine cutters, except continuous feed trimmers, shall be equipped with:-  
 (i) starting devices which require the simultaneous action of both hands to start the cutting motion and of at least one hand control during the complete stroke of the knife; or  
 (ii) an automatic guard will remove the hands of the operator from the danger zone at every descent of the blade, used in conjunction with one hand starting devices which require two distinct movements of the device to start the cutting motion, and so designed as to return positively to the non-starting position after each complete cycle of the knife.
- d) Where two or more workers are employed at the same time on the same power driven guillotine cutter equipped with two-hand control, the device shall be so arranged that each worker shall be required to use both hands simultaneously on the safety trip to start the cutting motion, and at least one hand on a control to complete the cut.
- e) Power-driven guillotine cutters, other than continuous trimmer, shall be provided, in addition to the brake or other stopping mechanism, with an emergency device which will prevent the machine from operating in the event of failure of the brake when the starting mechanism is in the non-starting position.
3. Slitting Machine:-
- a) Circular disc type knives on machines for cutting metal and leather, paper, rubber, textile or other non metallic substances shall, if within reach of operators standing on the floor of working level, be provided with guards enclosing the knife edges at all times as near as practicable to the surface of the material, and which may either:-  
 (i) automatically adjust themselves to the thickness of the material; or  
 (ii) be fixed or manually adjusted so that the space between the bottom of the guard and the material will not exceed 6 mm (1/4inch) at anytime.
- b) Portions of blades underneath the tables or benches of slitting machines shall be covered by guards.
4. Index cutters and Vertical Paper Slotters:- Index cutter, and other machines for cutting strips from the ends of books, and for similar operations, shall be provided with fixed guards, so arranged the fingers of the operators cannot come between the blades and the tables.
5. Corner Cutters:- Corner cutters used in the manufacture of paper boxes, shall be equipped with:-
- a) suitable guard, fastened to the machines in front of the knives and provided with slots or perforations to afford visibility of the operations ; or
- b) other guards equally efficient for the protection of the fingers of the workers.

6. Band Knives:- Band Wheels on band knives, and all portions of the blades except the working side between the sliding guide and the table on vertical machines, or between the wheel guards on horizontal machines, shall be completely enclosed with hinged guards of sheet metal not less than 1 mm (0.04 inch) in thickness or of other material of equal strength.

SCHEDULE – XXXV  
(See rule 84)  
THERMIC FLUID HEATERS

1. All heaters shall be of such construction that coils are removable for periodic cleaning, visual inspection and hydraulic test.
2. Suitable arrangements shall be made for cooling the furnace effectively in case of power failure.
3. Before restarting the furnace, it shall be effectively purged.
4. Velocity or flow of the thermic fluid shall not be allowed to fall below the minimum recommended by the manufacturer while the heater is in operation.
5. The thermic fluid shall be circulated in a closed circuit formation with an expansion-cum-deaerator tank. This tank shall be located outside the shed where the heater is installed.
6. Every heater shall be provided with a photo-resistor actuated auto-visual alarm to indicate flame failure and automatic burner cutoff.
7. The stack temperature monitor-cum-controller with audiovisual alarm shall be provided so as to warn operator in case the outlet temperature exceeds the specific minimum.
8. Where inspection doors are provided on the furnace they shall be interlocked with the burner itself so that they cannot be opened until burner is shut off and furnace is cooled sufficiently.
9. All heaters shall also be provided with the following safety devices:-
  - a) Level control in the expansion tank
  - b) Temperature control of thermic fluid;
  - c) Differential pressure switch on the outlet line of the heater tubes; and
  - d) Temperature control device for the fuel oil supply to the burner.
10. All devices specified in paragraph (9) shall have interlocking arrangement with burner so that in case of any predetermined limits being crossed, the supply of fuel and air shall automatically be cut-off.
11. All safety interlock when operated shall be indicated on the control panel of the heater by a suitable audio visual alarm.
12. Every heater unit shall be provided as a standard accessory an arrangement for sniffing with low pressure steam or nitrogen for putting out the fire.
13. Electric panel for the heater shall be located near the heater but not so close as to be exposed to spilling or leaking oil.
14. The heater shall be located in a place partitioned off with fire proof material from other manufacturing activities.
15. Explosion vent shall be so installed that release takes place at safe location.
16. The heater coil shall be subjected to pressure test by competent person once at least in every twelve months. The test pressure shall not be less than twice the operating pressure.
17. If repairs are carried out to the coil, it shall be tested before taking it into use.
18. The thermic fluid shall conform to the specifications specified by the manufacturers and shall be tested by competent person for suitability at least once in every three months period. Such test shall include test for acidity, suspended matter, ash content, viscosity and flash point.
19. Cleaning of internal surface of the heater soot and checkup of refractory surface on the inside shall be carried out every month or as often as required depending upon working conditions. The coils shall be removed and surface of the coils cleaned thoroughly once at least in a period of six months. The burner, nozzles, oil filters and pumps shall be cleaned once a week during the period of use.

20. A separate register containing the following information shall be maintained:-
  - a) weekly checks carried out confirming the effectiveness of the interlock;
  - b) weekly checks confirming that all accessories are in good state of repairs; and
  - c) information regarding fuel, oil temperature, pressure, thermic fluid inlet/outlet pressure and temperature, fuel gas temperature, recorded at four hourly intervals.
21. The heater when in operation shall always be kept in charge of a trained operator.

#### SCHEDULE - XXXVI

(See rule 84)

#### MANUFACTURE OF CHROMIC ACID OR MANUFACTURE OR RECOVERY OF THE BICHROMATE OF SODIUM, POTASSIUM OR AMMONIUM

1. Definition: the purposes of this schedule –
  - a) "Chrome process" means the manufacture of chromic acid or bichromate of sodium or potassium or ammonium or the manipulation, movement or other treatment of these substances in connection with their manufacture.
  - b) "Efficient exhaust draught" means localized ventilation effected by mechanical or other 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 efficient which fails to remove smoke generated to the point where such gas, vapour, fumes or dust originate.
  - c) "Suspension" means suspension from employment in any of the chrome process specified by written certificate in the Health Register in FORM-V signed by the Medical Officer, who shall have power of suspension as regards all persons employed in any such process.
2. Prohibition relating to women and Adolescent  
No woman or adolescent shall be employed or permitted to work on any chrome process.
3. Efficient Exhaust System
  - a) The following chrome processes shall not be carried on without the use of an efficient exhaust-draught, namely:-
    - (i) grinding;
    - (ii) sieving;
    - (iii) batch mixing;
  - b) (i) All equipment for the extraction or suppression of dust/fumes 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.  
(ii) A register containing particulars of such examination and tests shall be kept in Form-AG
4. Separation of certain processes  
The following chrome processes namely :-
  - a) grinding of raw materials, and
  - b) sieving of raw materials, shall be carried on in such manner and under such conditions as to secure effective separation from any other processes.
5. Washing facilities
  - a) Where acidification, sulphate settling or washing, concentration, crystallization, centrifugation or packing is carried out, near to working area, there shall be-
    - (i) wash places installed for washing hands and feet frequently in running water, and
    - (ii) a container holding at least 20 ounces of 10 per cent solution of sodium bisulphite or any other suitable reducing agent.
  - b) There shall also be provided and maintained in a clean state and good repair washing accommodation under cover with a sufficient supply of soap and towels on the scale indicated below-

At least one tap or stand pipe for every 10 employees and the tap or pipe shall be spaced not less than 1.2 meters apart.

6. Time allowed for washing  
Minimum ten minutes before each meal and end of the day's work. 10 minutes additional to the regular meal time shall be allowed to each person employed in the chrome process for washing.
7. Floorings
  - a) of cement or similar other material so as to be smooth and impervious to water and provided with suitable gradient and drainage;
  - b) maintained in sound condition and cleaned daily.
8. Medical Examination by Medical Officer:
  - a) Every worker employed in the processes to which this schedule applies shall be examined by a medical officer within 15 days of his first employment. Such examination shall include tests as required by medical officer. 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 medical officer.
  - b) Every worker employed in the said processes shall be re-examined by a medical officer at least once in every twelve calendar months. Such re examination shall, wherever the medical officer considers appropriate, include tests as specified in sub- paragraph (1).
  - c) The medical officer after examining a worker shall issue a Certificate of Fitness. 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 occupier of the factory. The record of each examination carried out under sub paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the medical officer in a health register in FORM-V.
  - d) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
  - e) If at any time medical officer 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/she 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/she 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/she is fully incapacitated in the opinion of the Medical officer, in which case the person affected shall be suitably rehabilitated.
  - f) No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Medical officer, after further examination, again certifies him fit for employment in those processes.
9. Protective Equipment  
The occupier shall provide and maintain for the use of all persons employed –
  - a) in grinding, sieving or mixing raw materials, sufficient and suitable respirators (issued separately for each individual) the filtering materials of which shall be renewed daily;
  - b) in roasting process, suitable footwear;
  - c) in acidification, settling concentration, crystallization, centrifugation or packing suitable aprons and protective coverings for hands and feet. Arrangements shall be made by the occupier for the examination and cleaning of all the protective equipment at the close of each day's work and for the repairs or renewal thereof when necessary.
10. Use of Protective Equipment  
Every person employed in a chrome process shall make use of the protective equipment provided under Paragraph 9.

11. Cloak room  
There shall be provided and maintained in a clean state and in good repair for the use of all persons employed in any chrome process –
- a) a cloakroom for street clothing put off during working hours including adequate arrangements for drying such clothing when wet, such accommodation shall be separate from any mess room;
  - b) separate and suitable arrangements for the storage of protective clothing provided under Paragraph 9.
12. Mess Room  
There shall be provided and maintained for the use of all persons remaining within the premises during the meal intervals a suitable mess-room providing accommodation of at least 0.9 sq. metres per head and furnished with –
- a) a sufficient number of tables and chairs or benches;
  - b) arrangements for washing utensils;
  - c) adequate means for warming food.
- The mess-room shall be placed under the charge of a responsible person and shall be kept clean.
13. Prohibition of foods, drinks etc.  
No food, drink, "pan", "supari", or tobacco shall be brought or consumed by any worker or in any work-room in which chrome process is carried on and no person shall remain in any such room during intervals for meals or rest.
14. Fencing of Vessel  
Every fixed vessel, whether pot, pan, vat or other structure, containing any dangerous material, and not so covered as to eliminate all reasonable risk of accidental immersion of any portion of the body of a person employed shall be fenced as follows :-
- a) Each such vessel shall, unless its edge is at least 91.4 centimetres above the adjoining ground or platform be securely fenced to a height of at least 91.4 centimetres above such adjoining ground or platform;
  - b) No plank or gang-way shall be placed across or inside any such vessel unless such plank or gang-way is–
    - (i) at least 45.7 centimetres in width, or
    - (ii) securely fenced on both sides, either by upper and lower rails to a height of 91.4 centimetres or by other equally efficient means;
  - c) If any two such vessels are near each other and the space between them clear of any surrounding brick-work or other work, is either –
    - (i) less than 45.7 centimetres in width, or is 45.7 or
    - (ii) more centimeters in width, but is not securely fenced on both sides to a height of at least 91.4 centimetres secure barriers shall be placed so as to prevent any passage between them.
15. Cautionary Notices  
A cautionary notice in the form specified by the Chief Inspector-cum-Facilitator 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.
16. 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 process, or for any other reason, all or any of the provisions of this Schedule are not necessary for the protection of the persons employed in such factory, he/she may be certificate in writing exempt such factory from all or any of the provisions indicated in such certificate on such conditions as he/she may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-Facilitator without assigning reasons.

## SCHEDULE - XXXVII

(See rule 84)

## WELDING/CUTTING OPERATION WITH THE USE OF LPG/ACETYLENE/ARGON

1. Applicability: This Schedule is applicable to all operations in welding/cutting of materials with the use of Liquefied Petroleum Gas or Acetylene gas or Argon etc. with oxygen gas.
2. Equipment:
  - a) Gas cylinders whether filled or empty shall not be stored in rooms where welding or cutting work is being done.
  - b) Liquefied gas cylinder, when in use shall always be kept in an upright position and shall be so placed that they cannot be knocked over.
  - c) Open flames, lights, lighting of fire and smoking shall be prohibited in close proximity to any cylinder containing flammable gases, except those which are in use for welding, cutting or heating.
  - d) All cylinders shall be stored at a safe distance of not less than 10 meters from all operations which produce, flames, sparks or molten metal or result in excessive heat.
  - e) Every gas cylinder shall be provided with efficient standard type pressure regulator and back flow of gas will be restricted by second non-return type valve.
  - f) All welding/cutting torches shall be of standard type which should be provided with non return valve.
  - g) Suitable type of fire extinguishers shall be provided near the welding/cutting place and also near the gas cylinder storage.
  - h) Pipe lines from gas cylinders shall be painted with distinctive colours for identification of each gas.
3. General:
  - a) Welding and cutting operation shall be prohibited in areas containing explosive or flammable dusts, gases, oil or vapours.
  - b) Welding/cutting operations that are carried out in places where persons other than the welders and their helpers are working or passing shall be enclosed by means of suitable stationary or portable screens at least 2.13 meters (7 ft.) in height.
  - c) All equipments like welding/cutting torch, pipe lines, brackets, non-return valves and pressure regulators shall be examined by a competent person having know-how of such equipment, at least once in a period of 15 days.
  - d) The welding/cutting process shall be carried out by workers specially trained in that job and having knowledge of the hazards of fire, back-fire and explosion.
  - e) A log book of examination of equipment and a register of trained workers for welding / cutting operation shall be maintained in the forms as directed by the Inspector-cum-Facilitator.

PART - B  
SCHEDULE - I  
(See rule 84)

## Dyeing, Stencilling and Painting of Mats, Matting's and Carpets in Coir and Fibre Factories

1. Application – These provisions shall apply to all coir factories in which stenciling or painting of mats or matting or carpets is carried on, and to all coir and fibre factories in which dyeing of yarns (other than cotton yarns) and fibre is carried on.

2. Declaration of operations as dangerous – Stenciling and painting of mats, matting and carpets and dyeing of yarns (other than cotton yarns) and fibre are declared to be dangerous operations when carried on in any coir factory.
3. Prohibition of employment of women and young persons – No woman or young person shall be employed or permitted to work in any of the operations specified in clause 2.
4. Protective measures – The occupier shall provide free of cost and maintain in good condition for use of all persons engaged in operations specified in clause 2:-
  - a) Suitable rubber gloves of durable quality for both hands.
  - b) Rubber boots of durable quality for bothlegs.
  - c) Goggles.
  - d) Any other material or appliance which in the opinion of the Chief Inspector-cum- Facilitator, shall be necessary for the protection of workers.
5. Wearing of gloves, boots and goggles – All persons engaged in any of the operations specified in clause 2, while at work in these processes should make use of the materials and appliances provided under clause 4.
6. Food and drink–
  - a) No food or drink shall be brought into any room in which any of the operations specified in clause 2 is carried on.
  - b) No food or drink shall be consumed in any room in which any of the operations specified in clause 2 is carried on.
7. Floor of work-rooms-The floor of every room in which any of the operations specified in clause 2 is carried, on shall be of cement of similar materials so as to be smooth and impervious of water maintained in sound condition and provided with suitable and adequate arrangements for drainage.
8. Washing facilities–
  - a) The occupier shall provide and maintain for the use of all persons employed in operations specified in clause 2, suitable washing facilities consisting of–
    - (i) A masonry or steel water tank capable of holding sufficient water and having taps at the rate of one tap for every ten persons employed at any one time. The floor around the tank and below the taps shall be cement plastered and maintained in sound and clean condition. Suitable and adequate arrangements for drainage shall be provided around the tanks and taps.
    - (ii) Sufficient supply of nail brushes, soap or other suitable cleaning materials and clean towels.
  - b) The facilities so provided shall be placed under the charge of a responsible person and shall be kept clean.
9. Medical Examination –
  - a) The person so employed shall be medically examined by a Medical Officer within 14 days of his first employment in such process and thereafter shall be examined by the Medical Officer at intervals of not more than twelve months, and record of such examinations shall the entered by Medical Officer in the Health Register in FormV.
  - b) A Health Register in Form-V containing the names of all persons employed in the processes named in clause 2 shall be kept.
  - c) No person after suspension shall be employed unless the Medical Officer after re-examination, again certifies him to be fit for employment.
10. Exemptions - The Chief Inspector-cum-Facilitator may grant exemption from the operation of clause 4, 5, 6, 7 and 8 to the extent to which he/she deems suitable where he/she is satisfied that their observance is not necessary for safeguarding the health of the operatives.

SCHEDULE - II  
(See rule 84)  
Cellulose Spraying

1. Application - The provisions of this schedule shall apply to all factories or parts of factories in which the spraying of cellulose, ester paints or lacquers is carried on.
2. Prohibition of the employment of children and adolescents- No child or adolescents shall be employed in any factory on the operations specified in paragraph 1 above.
3. Exhaust draughts - An efficient exhaust draught shall be provided by mechanical means for the process specified in paragraph 1. The draught shall operate on the vapour given off in the process as near as may be at the point of origin so as to prevent (as far as practicable under the atmospheric conditions usually prevailing) from escaping in to the air of any place in which work is carried on. The draught shall be maintained working for a period of at least five minutes after the cessation of the operation:  

Provided that the Chief Inspector-cum-Facilitator may grant exemption from these provisions if he/she is satisfied that due to the casual nature of the operation they are not necessary to secure the health of the workers.
4. Position of spray operators - Arrangements shall, as far as practicable he/she made so as to render it unnecessary for the person operating the spray to be in a position between a ventilating out fit and the article being sprayed.

SCHEDULE - III  
(See rule 84)  
Graphite Powdering and Incidental Processes

1. Application - The provisions of this schedule shall apply to all factories or parts of factories in which the grinding and slewing of graphite and the processes incidental thereto are carried on.
2. Prohibition of employment of women, children and adolescents - No pregnant woman, adolescent shall be employed in any factory upon any of the operations specified in paragraph 1 above.
3. Medical Certificate and examinations-
  - a) No person shall be employed in any factory for more than fifteen days in the year upon any of the operations specified in paragraph 1 above unless a special certificate of fitness in FORM-VI, granted to him by a Medical Officer, is in the custody of the manager of the factory.
  - b) The Inspector-cum-Facilitator of factories may require that any person in respect of whom a certificate referred to in sub-paragraph (1) has been granted shall carry with him while at work a token giving reference to such certificate.
  - c) Every person so employed shall be medically examined by a Medical Officer at intervals of not more than 6 months and a record of such examinations shall be entered in the special certificate granted under sub -paragraph (1).
4. If at any time a Medical Officer is of opinion that any person is no longer fit for employment upon any of the operations specified in paragraph 1 above he/she shall cancel the special certificate of fitness granted to that person.
5. No person who special certificate of fitness has been cancelled shall be employed upon any of the operations specified in paragraph 1 above unless a Medical Officer again certifies him to be fit.
6. Exhaust draughts - Provision shall be made for removing the dust produced in any of the operations specified in paragraph 1 above by means of an efficient exhaust draught so contrived as to operate on the dust as closely to the point of origin as possible:

Provided that where the provision of an exhaust draught is not reasonably practicable the Inspector-cum-Facilitator may require –

- a) Respirators of a type approved by him to be provided and maintained in a clean and efficient condition by the occupier and worn by every person working under such conditions; and
  - b) the damping of floors, apparatus and material to prevent the raising of dust.
7. Floors and work-benches–
- a) The floor of every room in which any person is employed upon any of the operation specified in paragraph above shall be of cement or other impervious material.

#### SCHEDULE - IV

(See rule 84)

#### Curing, Canning or Other Processing of Fish

1. Application – This schedule shall apply to all factories or parts of factories in which curing, canning or any other processing of fish including prawns, is carried on.
2. House keeping–
  - a) Every part of the ways, works, machinery and plant and premises shall be maintained in clean and tidy condition.
  - b) Any spillage of materials shall be cleared up without delay.
3. Personal protective equipment–
  - a) Suitable protective clothing shall be provided for the use of workers-
    - (i) when entering the cold storage chamber, and
    - (ii) when attending to processes which are wet and likely to drench the clothes worn.
  - b) The occupier shall provide for the use of all persons employed in or entering the cold storage chamber,
    - (i) an adequate supply of protective equipment against low temperature, including gloves, overalls and protective footwear's, of types approved in writing by the Inspector-cum-Facilitator;
    - (ii) an adequate supply of protective footwear of a type approved in writing by the Inspector-cum-Facilitator for the use of all persons employed in wet processes involving standing on wet floor or handling of wet articles, or washing of articles.
  - c) Arrangement shall be made for the proper and efficient cleaning of all such protective clothing, Adequate soap, free of cost, shall be made available for this purpose.
  - d) The occupier shall provide and maintain for the use of persons employed suitable accommodation for keeping the clothing not worn during working hours, and for the drying of wet clothing. The accommodation so provided shall be placed under the charge of a responsible person.
  - e) No person shall wear a protective clothing or protective footwear worn by another person.
4. Washing facilities–
  - a) The occupier shall provide and maintain for the use of all persons employed suitable washing facilities consisting of:-
    - (i) a trough with a smooth impervious surface fitted with a waste pipe without plug and of sufficient length to allow at least 60cm. for every ten persons employed at any one time and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 60cm.; or
    - (ii) 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 soap or other suitable cleansing material and clean towels.
  - b) The facilities so provided shall be placed under the charge of a responsible person and shall be kept clean and in good repair.

5. Time allowed for washing – Before each meal and before the end of the days work, at least ten minutes, in addition to the regular meal times, shall be allowed to each person employed in processes specified in clause 1 for washing.
6. Food, drinks, etc., prohibited in work rooms – No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any work room or shed in which any of the operations specified in clause 1 is carried on.
7. Mess-rooms – These shall be provided and maintained for the use of all persons employed in processes specified in clause 1, a suitable mess-room furnished with sufficient tables and chairs or benches.
8. Exemption – Where the Chief Inspector-cum-Facilitator is satisfied that the observance of all or any of the provisions of this schedule are not necessary for safeguarding the health of the persons employed, he/she may by certificate in writing, exempt any such factory from all or any of such provisions subject to such conditions as may be specified in certificate.

## APPENDIX –A

(Rule 74)

SCHEDULE OF FEES PRESCRIBED OTHER THAN THE FEES PRESCRIBED IN  
APPENDIX B

Sl. No.	Description	Fees
1	Recognition of Competent person	Rs. 5000/- for recognition under each provision of the said Rule subject to a minimum fee of Rs. 20000/- for a person and Rs. 100000/- for an institution.
2	Recognition of : Draftsman -A Draftsman -B Draftsman -C	Rs. 15000/- for each application Rs. 10000/- for each application Rs. 5000/- for each application
3	Medical examination by Medical Officer	Rs. 300/- per Medical Examination per worker
4	Approval of plan for construction, modification, extension etc. of factory building including layout of machinery and grant of permit thereof first-time scrutiny	Rs. 250/- per every 10 m <sup>2</sup> of plinth area or part thereof subject to a minimum Rs. 5000/- for each application
5	Approval of plan for construction, modification, extension etc. of factory building including layout of machinery and grant of permit thereof second and subsequent scrutinise revision	Rs. 5000/- for each application
6	Approval of plan for additional installation or for rearrangement of layout of machinery which donot involve the approval of building plans	Rs. 2500/- for each application
7	Revalidation of permit issued under Rule 3	Fee originally paid for the last permit
8	Amendment of license	Rs. 1000/- for each amendment
9	Transfer of license	a. 25% of license fee in case of transfer of license in favour of legal heirs. b. 100% of license fee for other transfers. c. If the transfer is made without change of ownership, amendment fee is required.
10	Application for Site Appraisal	1% of the total project cost subject to a maximum of Rs. 5,00,000.00 (Five Lakh).

Appendix – B  
(Rule 74)

Total power installed:

Maximum number of persons to be employed in any day during the year (Maximum power in kW)

	9	20	50	100	200	300	500	1000	2000	2500	3000	Above 3000
1	2	3	4	5	6	7	8	9	10	11	12	13
Nil	335	665	1165	1935	2485	3035	5240	6895	13785	19025	31700	41210
Up to 10	665	1165	1655	2760	3450	4140	6895	13785	19025	31700	41210	50715
Up to 20	1165	1655	1655	3450	4410	5515	13785	19025	31700	41210	50715	63395
Up to 50	1655	1655	2760	4825	8270	11025	19025	31700	41210	50715	63395	82415
Up to 100	1655	2760	3590	9650	13785	15215	31700	41210	50715	63395	82415	95095
Up to 200	3035	4140	7585	13785	16485	20290	36775	46915	58325	71640	90660	103340
Up to 300	4140	5515	11025	15215	20290	25360	43110	54525	67840	82415	100165	114110
Up to 500	6895	13785	19025	31700	36775	43110	50715	63395	79245	95095	110945	126790
Up to 1000	13785	19025	31700	41210	46915	54525	63395	79245	95095	110945	126790	142640
Up to 2000	19025	31700	41210	50715	58325	67840	79245	95095	110945	126790	142640	158490
Up to 5000	31700	41210	50715	63395	71640	82415	95095	110945	126790	142640	158490	174340
Up to 7500	41210	50715	63395	79245	87490	98265	110945	126790	142640	158490	174340	190185
Up to 10000	50715	63395	79245	95095	103340	114110	126790	142640	158490	174340	190185	206035
Up to 15000	63395	79245	95095	110945	119185	129960	142640	158490	174340	190185	206035	221885
Up to 25000	79245	95095	110945	126790	135030	145810	158490	174340	190185	206035	221885	247240
Up to 35000	95095	110945	126790	142640	150880	161660	174340	190185	206035	221885	247240	266255
Up to 50000	110945	126790	142640	174340	178140	183210	190185	228220	247240	266255	285275	304290
Up to 75000	126790	142640	174340	190185	201595	214275	228220	247240	266255	285275	304290	323315
Up to 100000	142640	174340	190185	209205	220615	233290	247240	266255	285275	304290	323315	342330
Up to 500000	174340	190185	247240	266255	285275	290350	296685	304290	323315	361350	380365	405720
Above 500000	228220	247240	266255	285275	304290	309365	315705	323315	361350	380365	405720	443760

1 H.P. = 0.746 KW

APPENDIX - C  
(See rule 98)

TABLE – 1

Substance	Permissible limits of exposure weighted average concentration			
	Short-term		Maximum concentration	
Aceticacid	10	25	15	37
Acrolein	0.1	0.25	0.3	0.8
Aldrin-sin	--	0.25	--	0.75
Ammonia	25	18	35	27
Aniline-skin	2	10	5	20
Anisidine(O-pisomers)-skin	0.1	0.5	--	--
Arsenic &Compound (as As)	--	0.2	--	--
Benzene	10	30	--	--
Bromine	0.1	0.7	0.3	2
Butanone (Methlohylketone MEK)	200	590	300	885
n-Butylacetate	150	710	200	950
Sec/tert. Butylacetate	200	950	250	1190
Cadmium -dust and salts (as Cd)	-	0.05	00	0.2
Calcium Oxide	-	2	--	--
Carbaryl (Selvin)	-	5	--	10

Carbofuran (Furadan)	--	0.1	--	--	
Carbondisulfide -skin	20	60	--	--	
Carbon Monoxide	50	55	400	440	
Carbontetrachloride -skin	10	65	20	130	
Carbonylchloride (Phosgene)	0.1	0.4	--	--	
Chlordane -skin	--	0.5	--	2	
Chlorebenzene (Monochlorbenzene)	75	350	--	--	358
Chlorine	1	3	3	9	
bis-Chloromethyether	0.001	--	--	--	
Chromicacid and chromets (as Cr)	--	0.05	--	--	
Chromium Sel. Chromic, Chromoussalts (as Cr)	0.5	--	--	--	
Copperfume	--	0.2	--	0.6	
Cottdust, raw	--	0.2	--	0.6	
Cresol, all isomers-skin	5	22	--	--	
Cyanides (as CN)-skin	--	5	--	--	
Cyanogen	10	20	--	--	
DDT (Dichlorodiphenyl trichloroethane)	--	1	--	3	
Demeton-skin	0.01	0.1	0.03	0.3	
Diazinon-skin	--	0.1	--	0.3	
Dibutyl phthalate	--	5	--	10	
Dichlorves (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	359
Iron Oxide Fume (Fe <sub>2</sub> , O <sub>2</sub> as Fe)	--	5	--	10	
Isoamyl acetate	100	525	125	655	
Isoamyl alcohol	100	360	125	450	
Isobutyl alcohol	50	150	75	225	
Lead, inorg, fumes and dusts (as pb)	--	0.15	--	0.45	
Lundane-skin	--	0.5	--	1.5	
Malathion-skin	--	10	--	--	
Manganese fume (as Mn)	--	1	--	3	
Mercury (alkyl compounds) skin (as Hg)	0.001	0.01	0.003	0.03	
Methyl alcohol (Methanol)-skin	200	260	250	310	
Methyl cellosolve-skin (2-methoxy ethanol)	25	80	35	120	
Methyl isobutyl Ketone-skin	100	410	125	510	
Napthalene	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	
Phenel-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	
Phosphorouspenta chloride	--	1	--	3	
Phosphoroustrichloride	0.5	3	--	--	360
Picricacid-skin	--	0.1	--	0.3	
Pyridine	5	15	10	30	
Silane (Silicontetrahydride)	0.5	0.7	1	1.5	
Styrene, monomer (phenylethylene)	100	420	125	525	
Sulfurdioxide	5	13	--	--	
Sulfuricacid	--	1	--	--	
Toluene (toluol)-skin	100	375	150	560	
O-Toludine	5	22	10	44	
Trichloroethylene	100	535	150	800	
Vinylchloride	5	10	--	--	
Weldingfumes (Noc)	--	5	--	--	
Xylene (o-m-p-isomers)-skin	100	435	150	655	

TABLE - 2

Substance	Permissible Time - weighted average concentration
1. Silica	
(a) Crystalline	
(i) Quartz	
(1) In terms of dust count	1060 mppcm %Quartz + 10
(2) In terms of respirable dust	10 mg/m <sup>2</sup> % respirable quartz + 2
(3) In terms of total dust	30 mg/m <sup>2</sup> %quartz + 3
(ii) Cristobalite	Health limits given against quartz
(iii) Tridymite	Health limits given against quartz
(iv) Silica fused	Same limit as for quartz
(v) Trippoli	Same limit as in formula in item2 given against quartz 361
(b) Amorphous	705mppem
2 Silicate having less than 1% free silica by weight	
(a) Asbestos (fibre longer than 5 microne)	2 fibre per cubic centimeter.
(i) Amosite	0.5 fibre/cubic centimeter
(ii) Chrysotile	2 fibre/cubic centimeter
(iii) Crocidolite	0.2 fibre /cubic centimeter
(iv) Other form	2 fibre /cubic centimeter

- (b) Mica 705mppem  
(c) Mineralwoolfibre 10mg/m<sup>3</sup>  
(d) Porlite 060mppcm  
(e) Portlantcement 1060mppcm  
(f) Soapstone 705 mppcm  
(g) Talc(monabostiform) 705 mppcm  
(h) Talc(fibrous) Samelimitasforasbestos  
(i) Tromolite Samelimitasforasbestos  
(j) Coal Dust
- (1) For airborne dust having less than 5% Silicon dioxide by weight - 2 mg/m<sup>3</sup>  
(2) For airborne dust over 5% silicon dioxide - Same limit as prescribed by formula in item (2) against quartz.

TABLE -3

Substance	Permissible limit of exposure	
	ppm	mg/m <sup>3</sup>
Aceticanhydride	5	20
O-Dichlorobenzene	50	300
Formaldehyde	2	3
HydrogenChloride	5	7
Manganese and Compounds(asMn)	--	5
Nitrogen dioxide	5	9

## FORM-I

(See rule-4)

## Application for Registration of Establishments /Amendment of Certificate of Registration

## A. Establishment Details.

1. Name of Establishment:
2. Location and Address of the Establishment:
3. Others details of Establishment:
  - a) Total Number of employees directly engaged:
  - b) Total Number of contract employees engaged:
  - c) Total Number of Inter-State Migrant workers employed:  
(details of employees shall be uploaded in the portal)
4. Type of Establishment .....(Factory/ Beedi /Plantation/ Construction/other Establishment).

## (a) For factories:

Details of manufacturing processes	Full postal address with PIN and location of the factory alongwith plan and approval details	Name and address with phone number and e-mail of the occupier and manager	Maximum number of workers to be employed on any day
(1)	(2)	(3)	(4)

(b) For building and other construction work:

Type of Construction work	Probable Date of commencement of work	Expected period for or probable date of completion of work.	Details of approval of the local authority
1	2	3	4

(c) For Plantations

Name of crops grown	Area in hectare	Taluk and village	Survey no. and sub divisional no.
1	2	3	4

d) For Motor Transports undertaking

Nature of motor transport service	Total number of motor transport vehicles	Registration number of vehicles	Maximum number of workers to be employed on any day
1	2	3	4

5. Ownership Type & Sector:

6. Activity as per National Industrial Classification:

7. Details of Selected NIC Code:

Identification of the establishment e-sign/ digital sign of employer/representative:

B. Details of Employer:-

a) Name & Address of Employer / Occupier / Owner/Agent/ Chief Executive/ etc:

b) Designation :

c) Father's/ Husband's Name

d) Email Address, Telephone& Mobile No :

C. Manager/Agent Details:-

a) Full name & Address of Manager/ Agent or person responsible for supervision and control of the Establishment

b) Address of Manager/ Agent:

c) Email Address, Telephone& Mobile No :

D. Contractor Details

Name and Address Contractor	Email address & Mobile no. of Contractor	365 Name of Work/Project	Maximum No. of Contract labourers engaged	Commencement Date/ Probable Completion date of work
1	2	3	4	5

E. Others Details if any :-

Dated:-  
Place:-

Signature/E-sign/digitalsign of employer

FORM-II  
(See rule-4(6))  
Register of Establishment

Sl. No.	Nature of work	Registration No. and Date	Name and Address, location of the establishment registered	Name, Address and Contact Details and email of Employer	Total number of Workers and Total Horse power (if any)	Total number of contract Workers	Remarks
1	2	3	4	5	6	7	8

- (a) Factories  
(b) Building and other Construction work  
(c) Contract work  
(d) Interstate Migrant Work  
(e) Any other work (not covered above).

FORM-III  
(See rule- 5)

Notice of Commencement / cessation of operation of Establishment:

1. Registration No:
2. Name and Address of Establishment:-
3. Name & Designation of employer (who has ultimate control over the affairs of the establishment) :-
4. Full address to which communication relating to the establishment to be sent :-
5. Nature of work of the establishment:-

In case of notice of commencement of work:

I/We hereby intimate that the work of establishment having registration No..... dated..... has commenced on.....(Date) and is likely to be completed on..... (Date).

In case of notice of cessation of operation or completion of work:

I/we hereby intimate the completion of work / cessation of operation of the establishment having registration No..... dated..... on .....(Date) and certify 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.

\* Strike off whichever is not applicable.

Signature of the Employer

To,

The Inspector-cum-Facilitator  
----- (office)

FORM-IV  
(See rule-6)

Proforma for medical examination to be conducted by a qualified medical practitioner

A. Demographics:

1. Question	Answer	Remarks
2. Date:		
3. Name of the Worker:		
4. Age:		
5. Permanent Address:		
6. Gender:		
7. Total Number of family Members:		
8. Total monthly family Income:		
9. Is the employee covered under Employees' State Insurance Scheme? (If yes, provide IP Number). Yes/No		
10. Is the employee under any other health scheme apart from ESI-Scheme? (If yes, provide the name of the scheme) Yes / No		

B. Occupational History

Question	Answer	Remarks
1. Present designation of the employee:		
2. Work Profile:		
3. Duration of service in the present work profile:		
4. Working Hours per shift:		
5. Night shift per week:		
6. Night shift per month:		

C. Brief Review of Medical History: Diagnosed previously or currently or currently suffering from:

Question	Answer (Yes/No)	Remarks
1. Anemia		
2. Jaundice		
3. Asthma		
4. COPD		
5. History of any Lung Disease: (If Yes, Please Specify)		
6. Vertigo/Dizziness Diabetes Mellitus Hyper tension Any type of Cancer (If Yes, Please Specify the type of Cancer)		
7. Chronic Low Back Pain		
8. Chronic pain in hand or elbow		
9. Hernia		
10. Hydrocele		
11. Varicose Vein		
12. Haemorrhoids		
13. Amputation/fracture/dislocation injury during work (If yes, please specify)		
14. Dermatitis (If Yes, specify Site)		
15. Hearing impairment		
16. Visual impairment		

17. Any Major illness requiring hospitalization in last 1 year  
(If Yes, Name of the Disease)
18. Occupational injury in last 1 year  
(if yes specify the location of injury and frequency)

## D. Current Symptoms-Diseases Module

Question	Answer (Yes/No)	Remarks
1. Smoking habit		
2. Chewing Tobacco or		
3. Pan Masala or Gutkha:		
4. Alcohol Addiction		
5. Dermatosis (Irritant Contact Dermatitis/Eczema/ Chloracne/Allergic Contact Dermatitis):		
6. Mucosal Irritation of eyes/Nose/Throat with response to chemical agent or biological agent:		
7. Symptoms like Respiratory Difficulty/ Chest Tightness/ Dry Cough at beginning of shift:		

## TB:

1. Jaundice or Hepatitis:
2. Low back pain Pain in hand or elbow:
3. Suffering from visual problems suffering from hearing problems
4. Any injury (amputation/ fracture/ dislocation)
5. Any musculoskeletal sprains/ strains

## E. Physical Examination

Date of Examination: Question	Answer (Yes/No) or as appropriate	Remarks
1. General skin condition: (If any dermatitis, please mention its location)		
2. Weight (in Kg):		
3. Height (in meters)		
4. Temperature (in o c):		
5. BP:		
6. Pulse:		
7. SpO2:		
8. Respiratory Rate:		
9. wherever examination of breast of female-employee conducted.		

## F. Investigation Report

Parameter	Answer (Normal/Increase/Decrease)	Value
• Routine Blood Investigation: Attach the photocopy of the report		
• Blood Grouping & Rh Typing and HB Electrophoresis once in a lifetime		
1. Hb%:		
2. Total WBC Count and Differential Count:		
3. Platelet Count:		
4. ESR:		

- 5. FBS:
- 6. PPBS:
- 7. HBA1C level
- 8. BUN:
- 9. Creatinine:
- 10. Total Protein
- 11. Albumin
- 12. Globulin
- 13. SGOT
- 14. SGPT
- 1. Bilirubin
- 2. Urine RE
- 3. Urine ME
- 4. Prostate Specific Antigen (PSA)

G. Standard Chest X Ray (PA) View: attach the photocopy of the report

Date:

Parameter	Answer (Normal/Abnormal)	Value (if any importance)
Report		
Report:		

H. Spirometry: attach the photocopy of the report (For employees in Mines)

Date:

Parameter	Answer (Normal/Increase/Decrease)	Value
1. PEFR:		
2. FEV1:		
3. Observed:		
4. Predicted:		
5. FVC:		
6. Observed:		
7. Predicted:		
8. FEV1/FVC:		
9. Final Report:		
	Normal / Obstructive Lung Disease/ Restrictive Lung Disease/ Mixed Lung Diseases	

I. Audiometry (Pure Tone / BERA): attach the photocopy of the report (For Employees in Mines)

Date:

Parameter	Value/Result/Interpretation
	Visual inspection of ear for any abnormality like wax in external ear, infection etc.
1. Right Ear Hearing Threshold:	
2. Left Ear Hearing Threshold:	
3. Final Report preferable based on BERA:	
4. Right Ear:	
5. Left Ear:	

J. Eye Examination: attach the photocopy of the report

Date:

Parameter	Value/Result/Interpretation
	Visual inspection of Eye for any abnormality like corneal opacity/scaring, cataract etc.
1. Visual Acuity: Right	
2. Visual Acuity: Left	
1. Colour Vision	
2. Field of Vision	
3. Binocularity	
4. Lateral Phoria	
5. Vertical Phoria Stereoscopic Vision and Depth Perception	
6. Testing	
7. Fundus (Retina) examination	

K. 12 lead ECG and Echocardiography:

Final Report:

L. MEDICAL FITNESS TESTS FOR PERSONS WORKING AT HEIGHT

(as may be applicable):

1. Detailed Medical History and in-Depth General Medical Examination including tests for Vision, Hearing, Musculoskeletal System, Respiratory System, Cardiovascular System etc. as applicable to all employees.
2. Special Examination
  - a) Cardiovascular Uncontrolled hypertension or ischemic heart disease will be a contraindication. In the presence of hypertension and abnormal ECG findings, the employee should be referred to a Cardiologist for fitness.
  - b) Tests for Labyrinthine functions and for sense of position Eye Examination for Bilateral Nystagmus, Romberg sign. The presence of bilateral nystagmus and a positive Romberg sign will be an absolute contraindication.
  - c) Neurological examination Evaluate seizure disorders: CT Scan of Brain and E.E.G if indicated d) Assessment of Diabetic Control Status: (in case of employees suffering from Diabetes Mellitus)
  - e) Assessment of Phobia (Acrophobia) and any other Mental Health Disorder like Anxiety or Depression
  - f) Evaluation for Vertigo and Dizziness

For use of Industrial Safety Section:

- a) Walking freely over a horizontal bar at 1 ft. height: PASS / FAIL
- b) Wearing a safety belt and tying the rope knot: PASS/ FAIL
- c) Walking over a horizontal structure at 9 ft. height wearing a belt: PASS/ FAIL
- d) General physique (O.K./NOT O.K): PASS/ FAIL

M. Any other information/examination/biological investigation/test as mutually agreed by the employer and qualified medical practitioner

**FORM-V**  
(See rule 6 (2) & 42(2) (g))  
Health Register

1. Serial Number in the Register of Adult Worker:
2. Name of Worker:
3. Sex :
4. Date of Birth :

Department	Works Name of Hazardous process	Dangerous process/ operation	Nature of job or occupation	Raw materials produce or by products likely	Date of posting	Date of leaving/ transfer to the work	Reasons for discharge / leaving transfer	Date	Medical Examination and the results thereof			Period of temporary withdrawal from the work	It declared unfit, unfit for work			
									Signs and symptoms observed	Nature of test and results	Fit/ Unfit		Reasons for such withdrawal	Date of declaring him unfit	Date of issuing fitness certificate	Signature with date of the factory Medical Officer/ the certifying surgent
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

- Notes:
1. Separate page should be maintained for each worker.
  2. Fresh entry should be made for each examination

**FORM - VI**  
[See rule 6]  
Certificate of fitness for employment in hazardous process and Operations  
(To be issued by Factory Medical Officer)

1. Serial No. register of adult workers :
2. Name of the person examined :
3. Father's Name :
4. Sex :
5. Residence :
6. Date of birth, If available :
7. Name and address of the factory :
8. The workers is employed or proposed to be employed:
  - a) Hazardous:
  - b) Dangerous operation:

Certify that I have personally examined the above named person whose identification marks are ..... And who is desirous of being employed in above mentioned process/operation and that his/her age, as nearly as can be ascertained from my examination is ..... Years.

In my opinion he/she is fit for the said manufacturing process/operation.

In my opinion he/she is fit for employed in the manufacturing process/operation for the reasons .....

He/she is referred for further examination to the Medical Officer. The serial number of the previous certificate is .....

Signature or left thumb impression of the person examined.

Signature of the Factory Medical Officer

Stamp of factory medical officer with name of the factory

I certify that I examined the person mentioned above on (date of examination) I extend this certificate will (if certificate is not extended, the period for which the workers is considered is unfit for work to be mentioned Signs and symptoms observed during examination Signature of the factory medical officer with date

- Notes:
1. If declared unfit, reference should be made immediately to the Medical Officer.
  2. Medical Officer should communicate his finding to the occupier within 30 days of receipt of this reference.

FORM-VII  
(See rule 7)  
For Appointment Letter

1. Name of the Establishment;.....
2. Name of the Employee and Father/Mother's Name.....
3. Date of birth.....
4. Permanent Address of the employee.....
5. Post for which appointment is made .....
6. Nature of Work.....  
(hazardous/Nonhazardous/Clerical/Supervisory/Managerial)
7. Details of wages and perks.....
8. Nature of Appointment.....(permanent/temporary/Contract)
9. Period of Appointment .....
10. Employee distinct no. or code.....
11. Category of skill.....
12. Aadhar no.....

Signature

Name and Designation of  
Appointing Officer

## FORM-VIII

(See rule-8)

## NOTICE OF ACCIDENT OR DANGEROUS OCCURRENCE

1. Nature of industry and LIN of the establishment :
2. Employer's ESI Code :
3. Name of employer :
4. E.S.I.C. Insurance number of the injured person :
5. Address of work premise where the accident or dangerous occurrence took place :
6. Branch or department and exact place where the accident or dangerous occurrence took place :
7. Name and address of the injured person :
  - a) Sex :
  - b) Age (at the last birthday) :
  - c) Occupation of the injured person :
8. Local E.S.I.C. Office to which the injured person is attached :
9. Date, shift and time of accident or dangerous occurrence :
10.
  - a) Hour at which the injured person started work on the day of accident or dangerous occurrence:
  - b) whether wages in full or part are payable to him for the day of the accident or dangerous occurrence:
11.
  - a) Cause or nature of accident or dangerous occurrence :
  - b) If caused by machinery-
    - (i) Give the name of machine and the part causing the accident or dangerous occurrence:
    - (ii) state whether it was moved by mechanical power at the time of accident or dangerous occurrence:
  - c) State exactly what the injured person was doing at the time of accident or dangerous occurrence:
  - d) In your opinion, was the injured person at the time of accident or dangerous occurrence -
    - (i) acting in contravention of provisions of any law applicable to him; or
    - (ii) acting in contravention of any orders given by or on behalf of his employer; or
    - (iii) acting without instructions from his employer?
  - e) In case reply to (d) (i), (ii) or (iii) is in the affirmative, state whether the act was done for the purpose of and in connection with the employer's trade or business. :
12. In case the accident or dangerous occurrence took place while travelling in the employer's transport, state whether -
  - a) the injured person was travelling as a passenger to or from his place of works; :
  - b) the injured person was travelling with the express or implied permission of his employer; :
  - c) the transport is being operated by or on behalf of the employer or some other person by whom it is provided in pursuance of arrangements made with the employer; and :
  - d) the vehicle is being/not being operated in the ordinary course of public transport service.
13. In case the accident or dangerous occurrence took place while meeting emergency, state-
  - a) its nature ; and
  - b) whether the injured person at the time of accident or dangerous occurrence was employed for the purpose of his employer's trade or business in or about the premises at which the accident or dangerous occurrence took place. :
14. Describe briefly how the accident or dangerous occurrence took place :
  1. Names and addresses of witnesses : (1)  
(2)
  2.
    - a) Nature and extent of injury(e.g. fatal, loss of finger, fracture of leg, scald, scratch followed by sepsis, etc.) :
    - b) Location of injury (e.g. right leg, left hand, left eye, etc.)
  3.
    - a) If the accident or dangerous occurrence was not fatal, state whether the injured person was disabled for more than 48 hours :
    - b) date and hour of return of work :

4. a) Physician, dispensary or hospital from whom or which the injured person received or is receiving treatment :
- a) Name of dispensary/panel doctor elected by the injured person :
5. a) Has the injured person died ? :
- b) If so, date of death:

I certify that to the best of my knowledge and belief the above particulars are correct in every respect.

Signature, Name, Designation of Employer or the authorized person

Date of dispatch of report :

Place:

FORM-IX  
(See rule-9)  
NOTICE OF OCCURRENCE OF DISEASE

Name of establishment:

Registration number of establishment:

Nature of establishment:

Details of Patient:

Name of Patient:

Mobile Number & Email address, if any:

Works number of Patient:

Address of Patient:

Precise occupation of patient:

Nature of disease from which patient is suffering:

Date of Detection of Disease:

Details of Medical Practitioner:

Has the case been reported to the Medical Officer:

Signature of employer or Medical Practitioner

Date:

FORM-X(a)  
(See rule 10 & 11)  
Application by employee to Employer

To,

The Employer/Safety Officer  
(Name of establishment)

(Address of establishment)

Subject: Intimation of unsafe/unhealthy situation Sir

[Detail of unsafe/unhealthy situation and proposed suggestions]

Name of Employee Designation

Ex-82/2024

206

FORM-X (b)  
(See rule 11)

Action taken report in regard unsafe/unhealthy situation

It is brought to your knowledge that an unsafe/unhealthy situation [details] was brought into notice by (Name and designation of employee). The remedial action report is submitted as below;

(Details of remedial action)

Employer

FORM-XI  
[See rule-31]  
NOTICE OF PERIODS OF WORK

Name of the Establishment .....

Place .....

District .....

Period of work Group, Relay:

Men

Total No. of men employed:

Women

Total No. of women employed :

Description of Groups

Nature of Work:

Remarks:

On working days : From ..... To .....

On partial working days : From ..... To .....

Date on which this notice is first exhibited :

Signature of manager or agent :

Date :



**FORM-XIII**  
(See rule-32(1)(b))  
**REGISTER OF ACCIDENTS AND DANGEROUS OCCURRENCES**

Name of establishment:-----

LIN:-----

Date of Accident or dangerous occurrence	Date of report to Inspector cum - Facilitator	Nature of accident or dangerous occurrence	Name of Injured person (if any)	Date of return of injured Person to work	Number of days The injured Person was absent from work
1	2	3	4	5	6

**FORM-XIV**  
(See rule-32(1)(c))  
**REGISTER FOR LEAVE WITH WAGES**

Part I – Adult  
Part II - Adolescents  
Establishment:  
Name of worker :  
Department :  
Father's Name:

Sl. No	In the register of workers	Date of entry in to service	Interruptions					Leave with effect from	Whether leave not desired during the next 12 month	Date from which the worker is allowed leave	Wages for leave paid in	Discharge worker		Remarks
			Sickness and accidents	Authorized Leave	Lockout or Legal Strike	Involuntary unemployment	Other					Date of discharge	Date & amount of payments made in lieu of the leave due	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Note :- Separate page shall be allotted to each worker.



FORM - XVII  
[See rule 32(2)]

WAGE SLIP

- 1. Name of establishment.....
- 2. Address.....
- 3. Period.....
- 4. Name of Employee :
- 5. Father's/ Husbands Name:
- 6. Designation/ category:
- 7. Date of entry in to service:
- 8. UAN:
- 9. Bank Account No.:
- 10. Wage Period :
- 11. Rate of wages payable:
  - a. Basic:
  - b. D. A :
  - c. Another allowances:
- 12. Total attendance/unit of work done:
- 13. Overtime wages:
- 14. Gross wages payable:
- 15. Total deductions:
  - a. PF :
  - b. ESI:
  - c. other:
- 16. Net wages paid with date :

Employer / Pay-in-charge

Signature

FORM - XVIII  
(See rule 32 (2))  
ATTENDANCE CARD

- Name of factory .....
- Serial No. ....
- Department .....
- Name of work .....
- Father's or Mother's name .....
- Permanent address .....
- Local address .....
- Date of commencement of Employment
- Signature or thumb impression of worker
- \*Date of termination of employment
- \*Note: - To be entered only when employment is terminated.

## ENTRIES ON THE REVERSE SIDE

Month of ..... 20.....

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	

.....  
 (Signature of initials of the  
 Manger or Time Keeper)

FORM- XIX  
 (See rule-34)

ANNUAL RETURN  
 UNIFIED ANNUAL RETURN FORM FOR THE YEAR ENDING.....

Single Integrated Return to be filed On-line under the Occupational Safety, Health and Working Conditions Code, 2020, the Code on Industrial Relations, 2020, the Code on Social Security , 2020, and the Code on Wages, 2019

Instructions to fill up the Annual Return

- (1) This return is to be filled-up and furnished on or before 28th or 29th February every year.
- (2) The return has two parts i.e. Part-I to be filled up by all establishments.
- (3) Part-II to be filled-up by the establishments who are a Mine only in addition to Part-I.
- (4) The terms Establishment and Mines shall have the same meaning as under the Occupational Safety, Health and Working Conditions Code, 2020.
- (5) This return is to be filled-up in case of Contractor or manpower supplier who have engaged more than 50 workers and in case of Mines even if there is one worker employed in the relevant period.

Applicable to All Establishments -

## Part-I

## A. General Information:

Sl. No.			Instructions for filling the column
	Labour Identification		EPFO, ESIC, MCA, MoLE (LIN)
	Period of the Return	From – To-	Period should be calendar year
	Name of Establishment		
	EmailId		
	Telephone No.		
	Mobile No.		
	Premise name		
	Sub- locality		
	District		
	State		
	Pin		
	Geo Co-ordinates		
B(a)	Hours of Work in a day		
B(b)	Number of Shifts		

## A. Details of Manpower Deployed.

Details	Directly employed				Employed through Contractor			
	Male	Female	Transgender	Total	Male	Female	Transgender	Total
Maximum No. of employees employed in the establishment in any day during the year								
Average No. of employees employed in the establishment during the year								
Migrant Worker out of above								
Number of fixed term employee engaged								

## D. Details of contractors engaged in the Establishment:

Sl. No	Name with LIN of the contractor	No. of Contract Labour Engaged

## B. Details of various Health and Welfare Amenities provided.

Sl. No	Nature of various welfare amenities provided	Statutory (specify the statute)	Instructions for filling
1	Whether facility of Canteen provided (as per section 24 (v) of OSH Code, 2020)	Tick yes or no in the Box	Applicable to all establishments where in hundred or more worker including contract labour were ordinarily employed
2	Creche (as per section 67 of Code on Social Security Code, 2020 and Section 24 of the OSH Code 2020)	Tick yes or no in the Box	Applicable to all establishments where fifty or more workers are employed
3	Ambulance Room (as per section 24(2)(i) of OSH Code, 2020)	Tick yes or no in the Box	Applicable to mine, building and other construction work wherein more than five hundred workers are ordinarily employed
4	Safety Committee (as per Section 22(1) of OSH Code, 2020)	Tick yes or no in the Box	Applicable to establishments and factories employing 500 workers or more, factory carrying on hazardous process and BOCW employing 250 workers or more, and mines employing 100 or more workers
5	Safety Officer (as per section 22(2) of OSH Code, 2020)	No. of safety officers Appointed	In case of mine 100 or more workers and in case of BOCW 250 or more workers are ordinarily employed.
6	Qualified Medical Practitioner (as per Section 12 (2) of OSH Code 2020.	No. of Qualified Medical Practitioner appointed	There is no specification for minimum number of Qualified Medical Practitioner employed in establishment. However, this detail is required to have data on occupational health.

## C. The Industrial Relations:

1	Is the Works Committee has been functioning. (section 3 of IR Code, 2020) (a) Date of its constitution	Yes/No
2	Whether the Grievance Redressal Committee constituted (section 4 of IR Code, 2020)	Yes/No
3	Number of Unions in the establishments	Yes/No
4	Whether any negotiation union exist (Section 14 of IRCode, 2020)	Yes/No
5	Whether any negotiating council is constituted (Section 14 of IR Code, 2020)	Yes/No
6	Number of workers discharged, dismissed, retrenched or whose services were terminated during the year:	

Discharged	Dismissed	Retrenched	Terminated or Removed	Grand Total
7. Man-days lost during the year on account of				
Sl. No.	Reasons	Period/Date	No. of man days lost	Loss in term of money
(a)	Strike			
(b)	Lockout			

8. Details of retrenchment /lay off				
Sl. No.	No. of persons retrenched during the period	Details of payment paid to retrenched employees	No. of workers laid off during the period	No. of man-days lost due to lay-off

D. Details pertaining to maternity benefit:			
No. of female employees	No. of female employees availed maternity leave	No. of female employees paid medical bonus	No. of deduction of wages, if any made from female employees

E. Details of payment of bonus:			
Sl. No.	No. of employees covered under the Bonus provision.	Total amount of bonus actually paid	Date on which the Bonus paid

F. Details of accidents, dangerous occurrence and notifiable diseases:			
Sl. No.	Total number of accidents by which a person injured is prevented from working for a period of 48 hours or more as per Section 10 of the OSH Code, 2020.	Total number of fatal accidents and names of the deceased as per Section 10 of the OSH Code, 2020.	Total number of Dangerous Occurrences as defined under Section 11 of the OSH Code, 2020

G. Man-days and Production Lost due to accidents / dangerous occurrence:			
Sl. No.	Accident/Dangerous Occurrence.	Man days lost	Production Lost

FORM -XX  
[Rule-37(6)]

PROHIBITION ORDER AND IMPROVEMENT NOTICE

PART I  
PROHIBITION ORDER

Notice of Inspector-cum-facilitator on Inspection of Establishment regarding non compliance of provisions of safety, health and working condition under the Code and Rule.

Name of the establishment	Where situated lying / used/location	Registration no. of the establishment	LIN No. of the establishment
1	2	3	4

An inspection of the above named establishment, lifting appliances, loose gears, lifting devices, transport equipment, ladders and staging was made on .

The activities connected with establishments which are being carried on by you/about to be carried on by you/under your control involve a risk or danger to the life safety and health of employee and involve the following contraventions:

-----  
-----  
-----  
-----  
-----

Therefore, I hereby direct that the said activities shall not be carried on by you or under your control unless the said contraventions and matters mentioned have been remedied to the satisfaction of me. This order is being issued without prejudice or any legal action which may be taken for these contraventions.

On hearing from you that the requirements have been complied with the establishment, lifting appliance, loose gear or similar gear/transport equipment/ladders/staging/ scaffold/ .....shall again be visited with a view to the inspection being completed.

Dated at this day of 20

Inspector-cum-Facilitator  
under the Occupational Safety,  
Health and Working Conditions Code, 2020.

REQUIREMENTS

On compliance with all or any of the above contraventions, the Inspector-cum-Facilitator shall be informed in the manner prescribed overleaf, of the date and place at which the establishment, lifting appliance, loose gears or similar gear transport equipment, ladders and staging, scaffold ,.....can be re-inspected.

COMPLIANCE STATEMENT

Sir,

The contraventions notified by you have been effectively attended to. The establishment, lifting appliance, loose gears or similar gear, transport equipment, ladders and staging, scaffold shall be ready for inspection on the date and place named below:

Date of Inspection

Dated at \_\_\_\_\_ this day of \_\_\_\_\_ 20\_\_\_\_\_

To

The Inspector-cum-Facilitator under the Occupational Safety, Health and Working Conditions Code, 2020

PART - II  
IMPROVEMENT NOTICE

Inspector-cum-Facilitator's notice to the Employer, Owner, Master, Manager, Officer-in-Charge or Agents, Owner of lifting appliances, loose gears lifting devices, scaffold or the person, who, by himself, his agents or his employers, carries on the establishment, as the case may be.....

Name of the establishment, lifting :

Where situated/lying used/location:

Registration No of the LIN:

No. of appliances, loose gear, lifting device,

transport, equipment, ladders and stagings,

scaffold; establishment :

An inspection of the above-named establishment, dock, ship, lifting appliances, loose gears, lifting devices, transport equipment, ladders and stagings, scaffold was made on .....

The following contraventions were observed. You are required to remedy the said contraventions and send the compliance report in writing within ..... days.

CONTRAVENTIONS

This notice is being issued without prejudice to any legal action which may be taken for these contraventions on hearing from you that the requirements have been complied with the establishment, lifting appliance/loose gear or similar other gear/transport equipment/ladders/ staging, scaffold will again be visited with a view to the inspection being completed.

\_\_\_\_\_ Dated \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_  
Inspector-cum-Facilitator under the Occupational Safety, Health and Working Conditions Code, 2020

REQUIREMENTS.

On compliance with all or any of the requirements, the Inspector-cum-Facilitator should be informed in the manner prescribed overleaf of the date and place at which the establishment, lifting appliance, loose gear, transport equipment, ladders and staging, scaffold can be re-inspected.

COMPLIANCE STATEMENT

Sir,

The requirements noted by you have been effectively fulfilled. The establishment, lifting appliance, loose gear, lifting devices, transport equipment, ladders and staging, scaffold will be ready for inspection on the date and place named below:

Date of Inspection

Dated at \_\_\_\_\_ this day of \_\_\_\_\_ 20\_\_\_\_\_

To

The Inspector-cum-Facilitator under the Occupation Safety, Health and Working Conditions Code, 2020.

FORM -XXI  
{See rule 42 (2) (b) & 43}  
Certificate of fitness for Adolescent

Space for passport size  
Photograph of the young  
Person examined.

- 1. Serial No. register of adult workers :
- 2. Name of the person examined :
- 3. Father's Name :
- 4. Sex :
- 5. Residence :
- 6. Date of birth, If available :
- 7. Referred by :
- a Name and address of the factory :
- b Name of Manager :
- c. Manufacturing process in which young Person is proposed to be employed :

I certify that I have personally examined the named person whose identification marks are and who is desirous of being employed in the above mentioned manufacturing process, and that his/her age, as nearly as can be ascertained from my examination is -----years, and that he/she is \* fit/unfit for employment in the said manufacturing process an \*adult/child.

Physical disability, if any.....  
Reasons for refusal/revocation of certificate:

Signature or left hand thumb impression  
of the person examined  
Signature of Certifying Surgeon Name  
(in block letters)  
Date:

- Notes:-
- a) To be issued by the Medical Officer and a copy to be retained for 2 years.
  - b) As per the proviso to sub-section (2) of Section 69, the Medical Officer issuing this certificate should have personal knowledge of the place where the young person proposes to work and of the manufacturing process in which he will be employed.
  - c) As per Section 69 (3) of the Act this certificate is valid for one year from the date of issue.
  - d) In case of physical disability the exact details should be clearly stated.
  - e) Please delete what is not applicable.
  - f) Young person mean a child (who has completed 14 years and not completed 15 years) or and adolescent (who has completed 15 years and not completed 18 years of age).

Information to be furnished by Occupier of Hazardous process Industry to the  
Chief Inspector-cum-Facilitator

1. Name of Factory.....
2. Address .....
3. No of workers .....
4. No of workers in hazardous process .....
5. Product .....
6. Manufacturing process .....
7. Hazardous processes involved .....
8. Details of Chemicals involved .....

Name of Chemical	Maximum Storage Capacity
1 Raw Materials	
A	
B	
C	
Etc	
2 Intermediate Products	
A	
B	
C	
Etc	
3 Finished Product	
A	
B	
C	
Etc.	
9 Hazards associated with the Factory .....	
10 Fire & Explosion risk .....	
11 Safety Measures .....	
12 Details of hazardous waste generation & disposal .....	

Signature of Occupier

FORM-XXII  
(See rules 47(1), 64, 66, 149)  
APPLICATION FOR LICENSE

Acknowledgement Number : -----

Date:.....

Online Application for License/ Renewal of License/Amendment of License  
(Including common license)

- I. ESTABLISHMENT PROFILE:
  1. Name of Establishment:
  2. Labour Identification Number & Date:
  3. Address of establishment

- a) Head Office address along with Telephone Number & email Id:
- b) Corporate office address along with Telephone Number &email Id:
- 4. Full Name and Address of the applicant:
- 5. Full Name and Residential Address of the person who shall be the employer for the purpose of the Act:
- 6. If the employer is a partnership, company etc., Full Name and Residential Address of the Partners or Directors etc.,:
- 7. Activity as per National Industrial Classification: (Select all applicable activities given)
- 8. Details of selected NIC Code:
- 9. Nature of work carried on in the main establishment:
- 10. Identifier of the Establishment : (Select) :

designation/digital signature

II. Particulars required for Beedi & Cigar License

Financial resource of the employer (value of movable and immovable properties etc.,)	Whether the employer is a trademark holder registered under the Trade and Merchandise Marks Act, 1968	Value of Beedi or cigars or both manufactured at the industrial premises during the presiding financial year	Source of obtaining tobacco	Whether beedi or cigars or both manufactured by the applicant will be sold and marketed by himself or through a proprietor or a registered user of trade mark or any other person
1	2	3	4	5

III. Details of Employer:

- 1. Full Name of Employer: ..... relationship with establishment.)
- 2. Full Address of Employer:
- 3. Email Id of employer:
- 4. Mobile No. of employer:

IV. Particulars of the Contract labourers to be employed / is employed (If licence is required work wise)

Locations of work sites	Name of works	Activity as per national industrial classification	Date of commencement	Approximate Date of completion	Name of Establishments in which contract labourers is/proposed to be employed
1	2	3	4	5	6

- 1. Maximum number of workmen proposed to be employed on the Establishment on any date:
- 2. Amount of License Fee: INR (Transaction Id : )
- 3. Amount of Security Deposit: INR (Transaction Id : )

## V. DETAILS OF ESTABLISHMENTS FOR WHICH SINGLE LICENCE IS REQUIRED

Name of State in which the establishments are situated	Name of Each work	Maximum number of labourers to be/is employed	Date of commencement	Permanent establishment or probable date of completion	Permanent establishment or probable date of completion	Registration number, if obtained, then detailst here of
1	2	3	4	5	6	7

Signature of Contractor  
(Sign/DSC)

Note: This is an online application.

## APPLICATION FOR RENEWAL OF LICENCE

1. Licence No. Date:
2. LIN & PAN
3. Name and address of the establishment:
4. Date of expiry of previous licence:
5. Whether the licence of the employer/contractor was suspended or revoked:
6. Details of Fees paid: (Enclose e-payment receipt): Amount .... ....date of payment :
7. E-sign /digital sign of the employer/contractor date:

## APPLICATION FOR AMENDMENT OF LICENCE :

1. License No Date:
2. LIN & PAN
3. Name and address of the establishment:
4. Purpose and details for which amendment is sought:
  - (a) Maximum number of workers presently employed: (If there is increase in the maximum number of workers to be employed, then additional fees/security deposit as per law needs to be deposited:
  - (b) Details of fees paid through e payment date on which made:
  - (c) Other details requiring amendment in the licence issued (Necessary documents may be uploaded in support of change required)

E-sign /digital sign of the employer/contractor

date of application.

FORM-XXIII  
(See rule-48, 66)  
CERTIFICATE OF LICENSE

Licence No. -----

Reg. No. -----

Date of Reg. -----

Licence is hereby granted to ..... for the premises known as ..... situated at..... for use as a establishment within the limits stated herein after, subject to provisions of the Occupational Safety, Health and Working Conditions Code, 2020, and the rules made there under.

----- 20.(date).

Issuing Authority

Sl. No.	Period of issue	Valid for maximum no of Contract labourers/ workers on any one day	Fee	Date of Payment	Excess fee for late payment	Date of payment	Name of trade mark under which beedi/cigar is manufactured	Full Name and address of the registered user of the trade mark/ or any other person by whom the beedi/cigar marketed	Signature of the Issuing authority.
1	2	3	4	5	6	7	8	9	10

AMENDMENTS:

Year when Amended	Employer Name or Address of the establishment	Maximum number of Contract labourers / workers on any one day	Date of payment of amendment fee	Date of Payment	Signature of the Issuing Authority

Date

Signature of Licencing Authority

FORM-XXIV  
(Under Rule-50)  
APPLICATION FOR REFUND OF SECURITY DEPOSIT.

We ..... (Name and Address of the Contractor) for which Licence No..... Dated ..... has been issued to us by the Licencing Authority at.....

All the statutory benefits to the employees has been paid and no complaints or dispute is pending before any authority with this regard. There is no order directing the forfeiture of full or any portion of the security deposit. We request that security amount deposited by us for obtaining the licence may kindly refunded to us at the earliest. The bank details is submitted below:

Name of the Bank	Address of the Bank	Account Number	IFSC Code

Place :

Date :

Signature of the Contractor

FORM-XXV  
(See Rule-57)  
EXPERIENCE CERTIFICATE OF CONTRACT EMPLOYEE

To whom so ever concerned

1. Name and Address with phone number and email id of the employee:
2. UAN/Aadhaar No:
3. Serial Number in the Employee Register :
4. Registration number, date and name of the Board if the worker is registered as a beneficiary:
5. Designation:
6. Period of Employment:
7. Nature and location of work:
8. Skill category of the employee:
9. Name and Address with email id and LIN of contractor/employer:
10. Name and Address with email id and LIN of principal Employer:

Seal and Signature of Contractor

\*Please strike off whichever is not applicable.

FORM-XXVI  
(See Rule-62(1))  
Agreement between Producer and Audio-visual worker

This agreement is made on this day ..... month .....year..... between M/s..... having office at ..... (hereinafter referred to as the -Producer) on the first part and Shri/Smt/Kum. .... son/daughter/wife of Shri. .... residing at (here in after referred to as the -audio-visual worker) on the second part. The terms 'Producer' and 'audio-visual worker' shall include their heirs, successors, administrators and legal representatives:

Now, therefore this agreement is made as follows:

1. That both the parties agree that the duration of this agreement shall be from the date hereof till the completion of the audio-visual and this period shall not exceed consecutive months.
2. That the audio-visual worker agrees to attend studio, location or work place, as the case may be, subject to the requirement of his previous engagement and on his confirmation, to his respective job punctually as and when he shall be required by a written intimation by the Producer or the person duly authorised by him in writing.
3. That in consideration of the audio-visual worker services, as aforesaid, the Producer agrees to pay and the audiovisual worker agrees to receive a sum of Rs. .... (Rupees.....) payable as advance on signing of this agreement and the balance of Rs..... payable in ..... equal installments.
4. That in the event of the audio-visual production being not complete within the stipulated period and the Producer still needing the services of the audio-visual worker to complete the audio-visual production, the producer agrees to pay and the audio-visual worker agrees to receive additional remuneration on pro-rata basis, payable in the same manner as stated in Clause 3 above, till the completion of the production.
5. That in case the assignment of the audio-visual worker is completed earlier than the period stipulated in Clauses 1 and 4 above, the producer shall settle the account of the audio-visual worker

and pay the remaining balance of the agreement amount in full before the commencement of re-recording work/censor of the production, whichever is earlier.

6. That the audio-visual worker shall, if so required, (a) attend the studios, location or work-place, as the case may be, earlier than the a scheduled time of the shift, for preparatory work, and in that case, he/she shall be paid by the Producer extra wages at the rate of Rs per hour or part thereof for such early attendance. (b) continue to work beyond the working day, with one hour break and in that case, he/she shall be paid by the Producer extra wages at the rate of Rs..... for the work during the extended hours and refreshments, and transport facilities.
7. That the Producer shall provide transport and food or pay traveling allowances to and fro to report to duty and food allowance while on duty as are customary or fixed by bilateral arrangements between the Producer's and audio-visual worker's representative organizations.
8. That the Producer shall also pay for all travelling and accommodation expenses, fares, cost of food and such other allowances as are customary when the audio-visual worker is required to work on location outdoors.
9. That the Producer shall get the audio-visual worker insured for any injury or damage to his/her person including death caused by accident arising out of or in the course of his/her employment and/or during the period of his/her assignment under this agreement.
10. That where the Producer is prevented from proceeding with the production of the audio-visual by reason of fire, riot, natural calamity, order of the public authority or any other reason beyond his control:-
  - (a) he shall be entitled to suspend the operation of this agreement during the period of suspension of production in case the production is suspended. The producer shall serve notice in writing of such suspension on the audio-visual worker and shall pay all his/her dues up to the date of service of such notice. Upon resumption of work on the film, this agreement shall revive and shall remain valid for the period stipulated in Clause I excluding the period of suspension there from ; or
  - (b) he shall be entitled to terminate this agreement as from the cessation of production, in case the production ceases completely. The producer shall serve a notice in writing of such cessation on the audio-visual worker and make payment of all the amount due to the audio-visual worker at the time of termination.
11. That in case if the Producer desires to terminate this agreement before the expiry of its term for reasons other than misconduct in relation to performance of the audio-visual worker's duties or of his/her unwillingness to perform the services required under this agreement, the producer shall be entitled to do so only upon payment of the balance of the stipulated amount of the agreement. Only after such payment to the audio-visual worker, the Producer shall be titled to employ another audio- visual worker in his/her place.
12. That the Producer shall have the right to terminate this agreement on ground of misconduct on the part of the audio-visual worker in relation to performance of his/her duties or his/her unwillingness to perform the service required under the agreement, upon payment to the audio-visual worker of the amount due at the time of termination, calculated taking into consideration the audio-visual worker's total work in the audio-visual and the work he/she has completed till the date of termination of this agreement. Termination under this clause shall not be made unless the charges of the Producer against the audio-visual worker are proved before a forum comprising equal number of representatives of the Producers' Organisation and the audio-visual worker's Organisation to which the Producer and the audio-visual worker respectively may belong. The decision of the forum shall be binding on both the parties. The producer can engage another audio-visual worker for the job towards this agreement only after the forum has given a decision in favour of such termination and the audio-visual worker has been paid all his dues.
13. That in case of premature termination of this agreement, it shall be the option of the Producer whether or not to retain the work of the audio-visual worker in the audio-visual and at the same

- time, it shall be option of the audiovisual worker whether or not to allow his/her name to go on the credit titles of the film.
14. That the Producer shall have the right to decide the manner of representing the audio-visual worker's personality on the screen, his/her clothes, make-up and hair-style and the audio-visual worker shall fully and willingly comply with the direction of the Producer in this regard, provided that the requirements of the Producer in this respect have been notified to the audio-visual worker and accepted by him/her.
  15. That the audio-visual worker agrees that he/she shall render his/her services to the best of his/her ability in such manner as the Producer or, at his instance, the Director of the audio-visual may direct and shall comply with all reasonable instructions that he may give for the production of the film. That the Producer shall also pay for all traveling and accommodation expenses, fares, cost of food and such other allowances as are customary when the audio-visual worker is required to work on location outdoors.
  16. That the Producer shall get the audio-visual worker insured for any injury or damage to his/her person including death caused by accident arising out of or in the course of his/her employment and/or during the period of his/her assignment under this agreement.
  17. That where the Producer is prevented from proceeding with the production of the audio-visual by reason of fire, riot, natural calamity, order of the public authority or any other reason beyond his control:-
    - (a) he shall be entitled to suspend the operation of this agreement during the period of suspension of production in case the production is suspended. The producer shall serve notice in writing of such suspension on the audio visual worker and shall pay all his/her dues up to the date of service of such notice. Upon resumption of work on the film, this agreement shall revive and shall remain valid for the period stipulated in Clause I excluding the period of suspension there from ; or
    - (b) he shall be entitled to terminate this agreement as from the cessation of production, in case the production ceases completely. The producer shall serve a notice in writing of such cessation on the audio-visual worker and make payment of all the amount due to the audio-visual worker at the time of termination.
  18. That in case if the Producer desires to terminate this agreement before the expiry of its term for reasons other than misconduct in relation to performance of the audio-visual worker's duties or of his/her unwillingness to perform the services required under this agreement the producer shall be entitled to do so only upon payment of the balance of the stipulated amount of the agreement. Only after such payment to the audio-visual worker, the Producer shall be entitled to employ another audio- visual worker in his/her place.
  19. That the Producer shall have the right to terminate this agreement on ground of misconduct on the part of the audio-visual worker in relation to performance of his/her duties or his/her unwillingness to perform the service required under the agreement, upon payment to the audio-visual worker of the amount due at the time of termination, calculated taking into consideration the audio-visual worker's total work in the audio-visual and the work he/she has completed till the date of termination of this agreement. Termination under this clause shall not be made unless the charges of the Producer against the audio-visual worker are provide before a forum comprising equal number of representatives of the Producers' Organisation and the audio-visual worker's Organisation to which the Producer and the audio-visual worker respectively may belong. The decision of the forum shall be binding on both the parties. The producer can engage another audio-visual worker for the job towards this agreement only after the forum has given a decision in favor of such termination and the audio-visual worker has been paid all his dues.
  20. That in case of premature termination of this agreement, it shall be the option of the Producer whether or not to retain the work of the audio-visual worker in the audio-visual and at the same time, it shall be option of the audiovisual workers whether or not to allow his/her name to go on the credit titles of the film.

21. That the Producer shall have the right to decide the manner of representing the audio-visual worker's personality on the screen, his/her clothes, make-up and hair-style and the audio-visual worker shall fully and willingly comply with the direction of the Producer in this regard, provided that the requirements of the Producer in this respect have been notified to the audio-visual worker and accepted by him/her.
22. That the audio-visual worker agrees that he/she shall render his/her services to the best of his/her ability in such manner as the Producer or, at his instance, the Director of the audio-visual may direct and shall comply with all reasonable instructions that he may give for the production of the film.
23. That the audio-visual worker shall comply with all the regulations of the studio, location or work place as the case may be.
24. That the Producer shall not without the consent in writing of the audio-visual worker, assign or transfer the benefit of this agreement to any other person.
25. That the provisions of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952 shall be applicable to this agreement.
26. That the Producer shall not utilise the work of the audio-visual worker in any film, other than the audio-visual under this agreement, without prior permission of the audio-visual worker.

The parties have put their hands to this agreement on the date, month and year said above in the presence of each other and in the presence of the witnesses.

1. Witness Producer  
 Name Address

2. Witness audio-visual worker  
 Name Address

FORM-XXVII  
 (Under rule-71)  
 RECORD OF OUTSIDE WORK

Number and date of Government's Order permitting work outside the industrial premises.....

Date	Place or places where outside work was permitted	Nature of work	Name of employee	Remarks
1	2	3	4	5

## Form - XXVIII

(See rule 72(2), 73 (1), 75(2))

Application for Registration and Grant of Amendment of License and notice of Occupation  
(To be submitted in triplicate)

1	Application Form a.i.1. Registration, Grant of license and notice of occupation a.i.2. Amendment of License	Yes/No Yes/No
2	i. Applicationsname ii. Phonenumber iii. i) Whether factory already registered ii) If yes, Registration number iii) License number	Yes/No
3	Full name and postal address of the factory a) Panchayath/Municipality/Corporation b) Village and survey number c) Taluk d) District e) Pincode	
4	i. Nearest Police station–distance ii. Nearest Railway station-distance iii. Nearest Public Hospital-distance	
5	Full name and residential address of the persons who shall be the Manager of the factory for the purpose of the Act	
6	Full name and residential address of the occupier and his designation eg. Director, Partner, Proprietor or any other (specify) (List of Directors / Partners should be submitted)	
7	Full name and address of the owner of the premises of the building (including the precincts of thereof) referred Section 93	
8	Please furnish the reference number(s) of date(s) of approval(s) of the plans of the site and building and for disposal of trade wastes and effluents by the concerned authorities a.i. State Government a.ii. Local authority a. iii. ChiefInspector-cum-Facilitator a. iv. Pollution Control Board a.v. Other concerned authority (specify)	
9	i. Name of manufacturing process carried out in the factory ii. In case of application for amendment, indicate manufacturing process carried out previously	
10	The names and quantities of raw materials used, intermediate products and principal finished products during the last twelve months (in case of factories already in existence) Name Quantity (Volume/Weight.) 1 2 3	
11	Number of workers employed in the factory	Employed in the last 12 months Proposed to be employed in the next 12 months
	1. Maximum Number	
	2. Number ordinarily numbered	

12	Nature & total amount of power (in Kilowatts)	Installed	Proposed to be installed
13	Previous year's Labour welfare fund contribution remittance details (Cheque/DD/Chelan/Cash)		
14	Fees paid (Details): Rs .....(in figures) ..... ..... (in words) vide Treasury Chalan No..... Date .....Drawn on .....		
Name and signature of Manager with date		Name and signature of Occupier with date	

## Notes:

- The form should be completed in ink in block letters or typed.
- Strike off whichever is not applicable.
- If power is not used at the time of filling up this form but introduced later the fact should be communicated to the Chief Inspector-cum-Facilitator of factories immediately.
- The term 'Ordinarily employed' would mean the total number of workers working in all the shifts which should be over 50% of the working days in the factory.
- Head of account 0230-00-104-99

## Conditions for Autorenewal.-

I understand that as per provisions of the Code and Rule, if the applicant obtained licence by fraud or misrepresentation competent authorities can refuse and reject the application and legal action will be initiated against me

- I have verified all the data shown to me in Form -XVIII (FORM-G) and undertake that they are all correct and no deviations from the same and also from the details mentioned in the latest permit issued to me is existing in my Factory at the time of submission of this application.
- I undertake that any modifications, additions, extensions to the factory premises, building or machinery or on any data related to the factory, from the date of submission of this application shall be immediately brought to the notice of the concerned Inspector through proper means as per Rules and regulations.
- I undertake that no statutory proceedings initiated by the Department of Factories and Boilers are pending against me (except for those under the purview of the Honourable Courts) on the date of submission of this application.
- I undertake that my Factory complies with all applicable provisions under Code and Rules.
- I undertake that my Factory possesses all statutory clearances and legal documents as required for renewal of license and they are valid at the time of submission of this application and for such extended renewal period as required.
- I understand that the Department of Factories and Boilers reserves its right to cancel my auto renewed license at any time within its validity period, if any data submitted by me is found to be falsified or if any data is suppressed from the Department at the time of submission of this application in accordance with the relevant provisions of the Code and Rules.

FORM-XXIX  
(See rule 72(7)(a))

Stability Certificate

1. Name of the factory
2. Address of factory
3. Name of occupier of the factory
4. Nature of manufacturing process to be carried on in the factory.
5. Number of floors of the factory

I certify that I have inspected the building/buildings, the plans of which have been approved by the Chief Inspector-cum-Facilitator vide letter No-----date- ----- and examined the various parts including the foundations with special reference to the machinery, plant, etc. that have been installed. I am of the opinion that the building/buildings which has/have been constructed/ reconstructed/extended/taken into use is/are in accordance with the plans approved by the Chief Inspector-cum-Facilitator vide his letter mentioned above, that it/they is/are structurally sound and that its/their use as a factory/part of the factory for the manufacture of for which the machinery, plant etc. installed is intended. The building is safe against various loads, forces and effects due to process to be carried out in the factory or due to natural forces.

Signature of competent person and date:

Name of competent person :

Address of competent person :

Signature of Occupier and date

Name of Occupier

Form - XXX  
(See rule 73(1), 76(3))  
License to Work a factory

Name of Industry :

Registration No. :

License No. :

NIC code Number :

NIC code number for each process:

License is hereby granted to ..... For the premises known as ..... situated at ..... for use as a factory within the limits stated herein after subject to provisions of the Factories Act, 1948 and the Rules made there under for following manufacturing processes:

The .....19..... issuing authority.

	Valid for			Fee paid	Excess	Additional fee paid for late payment	Date of payment	Signature of the issuing authority
	Calendar year	Maximum no of worker on any one day	Maximum installed power in Kilowatts	Rs.	Rs.			
Granted under Rule 5								
Renewed under Rule 7								

## Transfers

To whom transferred	Date of Transfer	Transfer fee paid and date of payment

## Amendment

Date when amended	Amended workers	Installed power in Kilowatts	Amendment fee paid and date of payment	Additional fee paid and date of payment

FORM-XXXI  
(See rule 80, 81)  
Notice of Cessation

This is to intimate that I \_\_\_\_\_ employer of M/S \_\_\_\_\_ having registration number \_\_\_\_\_ will close the establishment w.e.f \_\_\_\_\_

Name of employer

Digitally/electronically signed

FORM-XXXII  
(Under rule-104)

ANNUAL REPORT OF HOUSING

Annual return for the year.....

1. Name of Plantation:
2. Name of State and District:
3. Name and address of the employer:
4. Year in which the plantation came under the preview of the Code:
5. Total resident labour population including dependents in the plantations:

6. Number of resident workers requiring houses:
7. Number of houses required to be provided according to the approved scheme every year:
8. Number of houses provided according to the approved scheme by-
  - i. Construction of new houses.
  - ii. adaptation of old houses.
9. Reason for not providing the number of houses as required in item No. 7: Date

Signature of the Employer

Form XXXIII  
[See rule 137(2)]  
REGISTER OF EMPLOYEES USING  
OR HANDLING HAZARDOUS CHEMICALS

The register of Workers engaged in connection with insecticides, chemicals and toxic substances, and their periodical medical examination for the year.....

Sl. No.	Name	Father's / Husband's Name	Address	Sex	Identification marks	Date of appointment	Age	Designation

PAST HISTORY

Illness	Poisoning	Allergy	Exposure to Pesticides	No. of Seasons	Years/ Remarks if any

FAMILY HISTORY

Illness	Psychological disorders	Haemorrhagic disorder
1	2	3

PERSONAL HISTORY

Illness	Psychological disorders	Haemorrhagic disorder
1	2	3

OBSERVATIONS

Medicval	Pre-employment	End of the year	Remarks

1. General Examination
  - a) General body limit
  - b) Weight and height
  - c) Blood pressure
  - d) Respiration
  - e) Anaemia
  - f) Diadema
  - g) Juandice

- h) Skin condition
  - i) Temperature
  - j) Fatig ability
  - k) Sweating
  - l) Sleep
  - m) Mutation
2. Gastro- Intestinal Nausea
- a) vomiting
  - b) Appetite
  - c) Taste
  - d) Pain in abdomen
  - e) Bowel movement
  - f) Liver
  - g) Spleen
3. Cardio-Respiratory
- a) Nasal discharge
  - b) Wheezing
  - c) Cough
  - d) Expectoration
  - e) Tightness of chest
  - f) Dyspnoea
  - g) Palpitation
  - h) Heart
  - i) Cyanosis
  - j) Tachycardia
4. Neuro-Muscular
- a) Headache
  - b) Dizziness
  - c) Irritability
  - d) Pulse
  - e) Twitching
  - f) Tremors
  - g) Convulsion
  - h) Paresthesia
  - i) Hallucination
  - j) Unconsciousness
  - k) Deep reflexes
  - l) Superficial reflexes
  - m) Coordination
5. Eye
- a) Pupil
  - b) Lachryination
  - c) Double vision
  - d) Clumped vision

- 6. Psychological
  - a) Temperament
  - b) Judgment
  - c) Nervousness
- 7. Kidney
  - Kidney condition
- 8. Investigation
  - a) Blood Hb%
  - b) BloodDC
  - c) Serum
  - d) Cholinesterase
  - e) Serum bilirubin
  - f) Urine routine examination
  - g) Urine microscopic
  - h) X-ray of chest
  - i) Advice given to:

Steps taken by the employer as per the doctor’s advice

- 1. Doctor
- 2. Patient
- 3. Employer

FORM - XXXIV  
 [See rule 150(1)]

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.....
  - .....
  - .....
  - .....



FORM -AG  
(See Schedule - V and Schedule - XXXVI )  
Examination of ventilation/exhaust system

1. Description of ventilation/exhaust system
2. Hood
  - (a) Serial No. of Hood
  - (b) Contaminant captured
  - (c) Capture velocities (at points to be specified)
  - (d) Volume exhausted at Hood (e) Hood static pressure Design Actual Value
3. Total Pressure drops at
  - (a) Joints
  - (b) Other points of system (to be specified)
4. Transport Velocity in Duct (at points alone dust to be specified)
5. Air cleaning Device
  - (a) Type used
  - (b) Velocity at inlet
  - (c) Static Pressure at inlet
  - (d) Velocity at outlet
  - (e) State Pressure at outlet
6. Fan
  - (a) Type used 435
  - (b) Volume handled
  - (c) Static Pressure
  - (d) Pressure drops at outlet of fan.
7. Fan Motor
  - (a) Type
  - (b) Speed and horse power
8. Particulars of defects, if any, disclosed during test in any of the above components.

I certify that on this ..... day of ..... the above dust extraction system was thoroughly cleaned and ( so far as its construction permits) made accessible for thorough examination. I further certify that on the said date, I thoroughly examined the above dust extraction system including its components and that the above is a true report of my examination.

Name and signature of competent person

By Order of the Governor,  
MINI ANTONY,  
Secretary to Government