



# झारखण्ड गजट

## असाधारण अंक

### झारखण्ड सरकार द्वारा प्रकाशित

संख्या-439 राँची, गुरुवार,

5 भाद्र, 1943 (श०)

27 अगस्त, 2021 (ई०)

### श्रम, नियोजन, प्रशिक्षण एवं कौशल विकास विभाग ।

#### अधिसूचना

27 अगस्त, 2021

एस० ओ० संख्या- 05-- निम्नलिखित प्रारूप नियम जिन्हें केन्द्र सरकार व्यावसायिक सुरक्षा, स्वास्थ्य और कार्यदशाएँ संहिता, 2020 की 37) की धारा और 135 जो सामान्य खंड अधिनियम, 1897 (1897 का 10) की धारा 24 के साथ पठित है, द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए तथा -

- (1.) झारखण्ड कारखाना नियमावली 1950
- (2.) झारखंड भवन एवं अन्य सन्निर्माण कर्मकार (नियोजन का विनियमन एवं सेवाशर्तें) नियमावली, 2006
- (3.) झारखंड ठेका श्रम (विनियमन एवं उत्सादन) नियमावली, 1972
- (4.) झारखंड अंतर्राज्यीय प्रवासी श्रमिक (नियोजन का विनियमन एवं सेवाशर्तें) नियमावली, 1980
- (5.) झारखंड मोटर परिवहन कर्मचारी नियमावली, 2001

(6.) झारखंड बीड़ी एवं सिगार कर्मकार (नियोजन की शर्तें) नियमावली, 1968

का अधिक्रमण करते हुए ऐसे अधिक्रमण से पूर्व किए जाने वाले कार्यों को अथवा किए जाने को छोड़कर, बनाने का प्रस्ताव किया जाता है और इन्हें उक्त धारा की उप-धारा (1) और धारा 135 की उप-धारा (1) में यथा वांछित प्रावधानों के अनुसार इससे प्रभावित होने वाले सभी संभावित व्यक्तियों की सूचना के लिए एतद्वारा अधिसूचित किया जाता है और यह नोटिस दिया जाता है कि उक्त प्रारूप अधिसूचना पर सरकारी राजपत्र, जिसमें यह अधिसूचना प्रकाशित हुई है, कि प्रतियां आम जनता को उपलब्ध कराए जाने के 45 दिनों की अवधि के समाप्त होने के बाद विचार किया जाएगा।

यदि कोई आपत्तियां और सुझाव हों तो, **श्रमायुक्त, झारखंड, श्रम भवन डोरंडा, राँची** को अथवा jlcran721@gmail.com के ईमेल पर पास भेजा जायेगा। आपत्तियों और सुझावों को एक प्रोफोर्मा में भेजा जाना चाहिए, जिसमें कॉलम (1) में व्यक्ति, संगठन का नाम और पता, कॉलम (2) में संदर्भित नियम/उपनियम जिसमें संशोधन करना है, तथा कॉलम (3) में संशोधन-प्रस्ताव (कारणसहित) हो।

किसी व्यक्ति द्वारा दिए गए आपत्ति अथवा सुझाव को उपर्युक्त अवधि के पश्चात् राज्य सरकार द्वारा विचार किया जाएगा।

**ह./- (अस्पष्ट),**

सरकार के अवर सचिव,

श्रम, नियोजन, प्रशिक्षण एवं कौशल विकास विभाग,

झारखण्ड, राँची ।

## **Draft Rules**

### **The Occupational Safety Health & Working Condition (Jharkhand) Rules, 2021**

#### **CHAPTER - 1**

#### **PRELIMINARY**

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

- (1) These rules may be cited as the Occupational Safety Health & Working Condition (Jharkhand) Rules 2021
- (2) These rules shall extend to whole of the state of Jharkhand
- (3) They shall come into force on the date of their final publication in the Official Gazette

##### **2. Definitions.-** In these rules unless there is anything repugnant in the subject or context-

- (a) "appendix" means an appendix appended to these rules;
- (b) "approved" means approved in writing by the Chief Inspector-cum-facilitator or the officer notified by the State Government in this regard as the case may be;
- (c) "artificial humidification" means the introduction of moisture into the air of a room by any artificial means whatsoever, except the unavoidable escape of steam or water vapour into the atmosphere directly due to a manufacturing process:  
Provided that the introduction of air directly from outside through moistened mats or screens placed in openings at times when the temperature of the room is 26.5 degrees centigrade or more, shall not be deemed to be artificial humidification;
- (d) "belt" includes any driving strap or rope;
- (e) "Board" means the Board constituted under section 17 of the Code;
- (f) "Calendar year" means the period of twelve months beginning with the first day of January in any year;
- (g) "casual leave" means leave to cover casual absence of the employees from duty for personal reasons;
- (h) "Child" shall have the same meaning as assigned to it in clause (ia) of section 2 of the Child and Adolescent (Prohibition and Regulation) Act, 1986;
- (i) "department" means Labour, Employment, Training and Skill Development of Jharkhand;
- (j) "degrees" (of temperature) means degrees on the centigrade scale;
- (k) "Electronically" means any information or communication submitted by email or uploading on the **designated portal** or digital payment in any mode for the purpose of Code;
- (l) "Form" means a form appended to these rules
- (m) "fume" includes gas or vapour;
- (n) "Hazardous substance" : (1) The Chemicals which are described under Schedule 1, Part-1 and Part-2 appended to these rules, or any other such substances which Central or State Government may notify from time to time;
- (o) "Health Officer" means the Municipal Health Officer or District Health Officer or such other official as may be appointed by the State Government in that behalf;
- (p) "Hygrometer" means an accurate wet and dry bulb hygrometer conforming to the prescribed conditions as regards construction and maintenance;
- (q) "Inspector Cum Facilitator of Factories" means an officer appointed under clause 34 of the Code and includes Chief Inspector Cum Facilitator, Additional Chief Inspector Cum Facilitator, Joint Chief Inspector Cum Facilitator, Deputy Chief Inspector Cum Facilitator;
- (r) "Labour Commissioner" means an officer as such appointed by the State Government;
- (s) "maintained" means maintained in an efficient state, in efficient working order and in good repair;
- (t) "Manager" means the person responsible to the occupier for the working of the factory for the purpose of the Code.
- (u) "Qualified Medical Practitioner" means a person holding a qualification granted by an authority specified in the schedule to the Indian Medical Degree Act 1916 (7 Of 1916) or in the schedule to Indian Medical Council Act 1956 (102 Of 1956)
- (v) 'Registering Officer' means the registering officer appointed by the State Government for

purpose of these rules.

(w) "Section" means Section of the code.

(x) "Schedule" means schedule appended to these rules.

(y) "worker" means a person [employed, directly or by or through any agency including a contractor] with or without the knowledge of the principal employer, whether for remuneration or not], in any manufacturing process, or in cleaning any part of the machinery or premises used for a manufacturing process, or in any other kind of work incidental to, or connected with, the manufacturing process, or the subject of the manufacturing process but does not include any member of the armed forces of the Union

(2) The words and expressions used in these rules and are not defined therein, but are defined in the Code, shall have respectively same meaning assigned to them in the Code.

**(2A) Competency under clause (l) of sub-section (1) of Section 2:**

(1) The Chief Inspector-cum-Facilitator of Factories, with the approval of Labour Commissioner, may recognize any person as a 'competent person' within such area and for such period as may be specified for the purposes of carrying out tests, examinations, inspections and certification for such buildings, dangerous machinery, hoists and lifts, lifting machines and lifting tackles, pressure plant, confined space, ventilation system and such other process or plant and equipment as stipulated in the Code and the Rules made there under, located in a factory, if such a person possesses the qualifications, experience and other requirements as set out in the Schedule annexed to this Rule.

Provided that the Chief Inspector-cum-Facilitator with the approval of Labour Commissioner, may relax the requirements of qualifications in respect of a 'competent person', if such a person is exceptionally experienced and knowledgeable, but not the requirements in respect of the facilities at his command.

Provided further that the 'competent person' recognised under this provision shall not be above the age of 62 and shall be physically fit for the purpose of carrying out the tests, examination and inspection.

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

(3) The Chief Inspector on receipt of an application in the prescribed form from a person or an institution intending to be recognised as a 'competent person' for the purposes of this Act and the Rules made there under, shall register such application and within a period of sixty days of the date of receipt of application, either after having satisfied himself as regards competence and facilities available at the disposal of the applicant recognise the applicant as a 'competent person' and issue a certificate of competency in the prescribed form or reject the application specifying the reasons therefore.

(4) The Chief Inspector, if he has reason to believe that 'competent person': -

- (a) has violated any condition stipulated in the certificate of competency;
- (b) has carried out a test, examination and inspection or has acted in manner inconsistent with the intent or the purpose of this Act or the Rules made there under, or has omitted to act as required under the Act or Rules made there under;
- (c) for any other reasons to be recorded in writing; may revoke the certificate of competency after giving an opportunity to the 'competent person' for being heard, subject to the approval of Labor Commissioner, Jharkhand,

Explanation:- For the purpose of this Rule, an institution includes an organization.

(5) The Chief Inspector may, for reasons to be recorded in writing, require recertification of lifting machines, lifting tackles, pressure plant or ventilation system, as the case may be, which has been certified by a competent person outside the State.

### **Form of Application for grant of Certificate of Competency to a person under sub-rule (1) of Rule 2A**

1. Name
2. Date of Birth
3. Name of the Organisation (if not self-employed)
4. Designation
5. Educational qualification (copies of testimonials to be attached)
6. Details of professional experience (in chronological order)

Name of the the Organisation	Period of Service	Designation	Area of Responsibility
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7. Membership, if any, of professional bodies
8. (i) Details of facilities (examination, testing, etc.) at his disposal.  
(ii) Arrangements for calibrating and maintaining the accuracy of these facilities.
9. Purpose for which Competency Certificate is sought (section or sections of the Act should be stated).
10. Whether the applicant has been declared as a competent person under any statute (if so, the details)
11. Any other relevant information as demanded by the authority.

Declaration by the applicant:-

I,....., hereby declare that the information furnished above is true.

I undertake

- (a) that in the event of any change in the facilities at my disposal (either addition or deletion) or my leaving the aforesaid organisation, I will promptly inform the Chief Inspector;
- (b) to maintain the facilities in good working order, calibrated periodically as per manufacturer's instructions or as per National Standards; and
- (c) to fulfill and abide by all the conditions stipulated in the certificate of competency and

instructions issued by the Chief Inspector from time to time.

Place & Date

Signature of the applicant:

Declaration by the Institution (if employed)

I, ....., certify that Shri ..... whose details are furnished above, is in our employment and nominate him on behalf of the organization for the purposes of being declared as a competent person under the Act. I also undertake that I will.

- (a) notify the Chief Inspector in case the competent person leaves our employment;
- (b) provide and maintain in good order all facilities at his disposal as mentioned above;
- (c) notify the Chief Inspector any change in the facilities (either addition or deletion)

Signature

Designation

Telephone No.

Official Seal

Date:

**Form of Application for grant of Certificate of Competency to an Institution under sub-rule (2) of Rule 2A.**

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

S.No.	Name and Designation	Qualifications	Experience	Section(s) and the Rules under which Competency is sought for.
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1.

2.

6. Details of facilities (relevant to item 3 above) and arrangements made for their maintenance and arrangements made for their maintenance and periodic calibration.

7. Any other relevant information.

I, ..... hereby, on behalf of.....Certify the details furnished above are correct to the best of my knowledge. I undertake to ----

- (i) maintain the facilities in good working order, calibrated periodically as per manufacturer's instructions or as per National Standards; and

(ii) to fulfill and abide by all the conditions stipulated in the certificate of competency and instructions issued by the Chief Inspector from time to time.

Signature of Head of the Institution or  
of the persons authorised to sign on his behalf.

Designation  
Place & Date

**Form of Certificate of Competency issued to a person or an institution in pursuance to  
Rule-2A**

I,....., in exercise of the powers conferred on me under Section 2(1) of the Occupational Safety, Health and Working Conditions Code 2020 and the Rules made there under, hereby recognize  
(Name of the Institution)  
or Shri ..... (Name of the person) employed in .....  
(Name of the Institution) to be a competent person for the purpose of carrying out tests, examinations, inspections and certification for such buildings, dangerous machinery, lifts and hoists, lifting machines and lifting tackles, pressure plants, confined space, ventilation system and process or plant and equipment as the case may be, used in a factory located in ..... under Section and the Rules made there under.

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Strike out the words not applicable.

This certificate is valid from .....to .....

This certificate is issued subject to the conditions stipulated hereunder: -

- (i) Tests, examinations and inspections shall be carried out in accordance with the provisions of the Act and the Rules made there under;
- (i) Tests, examination and inspections shall be carried out under direct supervision of the competent person or by a person so authorised by an institution recognised to be a competent person.
- (ii) The certificate of competency issued in favour of a person shall stand cancelled if the person leaves the organisation mentioned in his application;
- (iii) The institution recognised as a competent person shall keep the Chief Inspector informed of the names, designations and qualifications of the persons authorised by it to carry out tests, examinations and inspections.
- (v) .....
- (vi) .....

Station  
Date

Official Seal

Signature of the Chief Inspector

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**SCHEDULE**

S.No.	Section or Rules under which competency is recognised	Qualification required	Experience for the purpose	Facilities at his command
1.	Rules made under Section 6 and Rules 46 made under Section 133(2)(zzq) Certificate of stability for buildings	Degree in Civil or Structural Engineering; or Equivalent	i) A minimum of 10 years experience in the design of construction or testing or repairs of structures; ii) Knowledge of non-destructive testing, various codes of practices that are current and the effect of the vibrations and natural forces on the stability of the building; and iii) Ability to arrive at a reliable conclusion with regard to the safety of the structure or the building.	Facilities to carry NDTs (Non Destructive Tests)
2.	Rules made under Section 133(2) (zzq) "Dangerous Machines"	Degree in Electrical or Mechanical or Textile Engineering or equivalent.	a minimum of 7 years experience in- a) design or operation or maintenance; or b) testing, examination and inspection of relevant machinery, their guards, safety devices and appliances. (ii) he shall – a) be conversant with safety devices and their proper functioning; b) be able to identify defects and any other cause leading to failure; and c) have ability to arrive at a reliable conclusion with regard to the proper functioning of safety device and appliance and machine guard.	Guages for measurement; instruments for measurement of speed and any other equipment or device to determine the safety in the use of the dangerous machines.
3.	Rule 46 made under Section 82 Lifts and Hoists	A degree in Electrical and /or Mechanical Engineering or the equivalent	(i) A minimum experience of 7 years in- (a) design or erection or maintenance; or (b) inspection and test procedures of lifts and hoists; (ii) He shall be – (a) Conversant with relevant codes of practices and test procedures that are current; (b) Conversant with other statutory requirements concerning the safety of the Hoists and Lifts; (c) able to identify defects and arrive at a reliable conclusion with regard to the safety of Hoists and Lifts.	Facilities for load testing, tensile testing, guages equipment/ gadgets for measurement and any other equipment required for determining the safe working conditions of Hoists and Lifts.

4.	Rule 46 made under Section 82 Lifting Machinery and Lifting Tackles	Degree in Mechanical or Electrical or Metallurgical Engineering or its equivalent	A minimum experience of 7 years in- (a) design or erection or maintenance; or (b) testing, examination and inspection, of lifting machinery, chains, ropes and lifting tackles. He shall be – (a) Conversant with the relevant codes of practices and test procedures that are current; (b) Conversant with fracture mechanics and metallurgy of the material of construction; (c) Conversant with heat treatment/ stress relieving techniques as applicable to stress bearing components and parts of lifting machinery and lifting tackles; (d) capable of identifying defects and arriving at a reliable conclusion with regard to the safety of lifting machinery, chains, ropes, and lifting tackles.	Facilities for load testing, tensile testing, heat treatment, equipment/gadget for measurement, gauges and such other equipment to determine the safe working conditions of the lifting machinery tackle.
5	Rule 46 (Sub Schedule -33) made under Section 82 'Pressure Plant'	Degree in Chemical or Electrical or Metallurgical or Mechanical Engineering or its equivalent.	A minimum experience of 10 years in (a) design or erection or maintenance, or (b) testing, examination and inspection of pressure plants. He shall be – (a) Conversant with the relevant codes of practices and test procedures relating to pressure vessels; (b) Conversant with statutory requirements concerning the safety of unfired pressure vessels and equipment operating under pressure; (c) Conversant with non-destructive testing techniques as are applicable to pressure vessels; (d) able to identify defects and arrive at a reliable conclusion with regard to the safety of pressure plants.	Facilities for carrying out hydraulic test, non-destructive test, gauges equipment/ gadgets for measurement and any other equipment or gauges to determine the safety in use of pressure vessels.

6.	Rules made under Section 133(2) (zzq) Precautions against dangerous fumes Rules made under Sections 41 & 112 concernin g ship-building and ship repairs, Handling and processing of asbestos,	Master's degree in Chemistry, or a degree in Chemical Engineering.	(i) a minimum of 7 years in collection and analysis of environmental samples and calibration of monitoring equipment; He shall – (a) be conversant with the hazardous properties of chemicals and their permissible limit values; (b) be conversant with the current techniques of sampling and analysis of the environmental contaminants; and (c) be able to arrive at a reliable conclusion as regards the safety in respect of entering and carrying out hot work.	Meters, instruments and devices duly calibrated and certified for carrying out the tests and certification of safety in working in confined spaces.
7.	Ventilation systems as required under various schedules framed under section 87, such as scheduled on – (i) Grinding or glazing of metals and process incidental thereto; (ii) Cleaning or smoothing, roughening, etc. of articles, by a jet sand, metal shot, or grit, or other abrasive propelled by a blast of compressed air or steam. (iii) Handling and processing of Asbestors. (iv) Manufacturing of Rayon by viscost process. (v) Foundary operations.	Degree in Mechanical or Electrical Engineering or equivalent.	(i) A minimum of 7 years in the design, fabrication, installation, testing of ventilation system and systems used for extraction and collection of dusts, fumes and vapours and other ancillary equipment. (ii) He shall be conversant with relevant codes of practice and tests procedures that are current in respect of ventilation and a traction system for fumes, and shall be able to arrive at a reliable conclusion with regard to effectiveness of the system.	Facilities for testing the ventilation system, instruments and gauges for testing the effectiveness of the extraction systems for dusts, vapours and fumes, and any other equipment needed for determining the efficiency and adequacy of these systems. He shall have the assistance of a suitable qualified technical person who can come to a reasonable conclusion as to the adequacy of the system.

(4) **Income from the sources under Explanation to clause (x) of sub-section (1) of section 2-** If any dependent for the time being having income more than Rs.9000/- per month, such dependents shall not be included as dependents for the purpose of Sub-clause (ii) and (iii) of clause (x) of sub-section (1) of Section 2

(5) **Substance or quantity of substance under clause (zb) of sub-section (1) of section 2-** For the purpose of clause (zb) of sub-section (1) of section 2, the hazardous substance and its quantity is specified in **Sub Schedule-1, Sub- Schedule-2, Sub- Schedule-3 of Schedule- V**

## Chapter - II Registration

### [Rules prescribed under Section 3 and Section 79]

### **3. Manner of submitting application under sub-section (2) of section 3 and the form of such application and the particulars to be contained therein and the fees to be accompanied therewith and late fee under the proviso to sub-section (1) of section 3 ;-**

(1) (i) The employer seeking registration for an establishment not already registered shall apply electronically in **Form-I** on the Online Portal by giving details about the establishment, and uploading documents related to Registration of the establishment, proof of Identity and address of the employer(s) as specified in the Form along with the fee prescribed in the Sub-rule (10) of Rule 3. The Form shall be signed digitally or in any other manner as may be required on the portal. The applicant shall be responsible for veracity of all information submitted in the application.

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

(iii) The certificate of registration shall be issued in **Form-II** electronically immediately if the application is complete in all respect but not later than twenty days from the date of submission of complete application, failing which such establishment shall be deemed to have been registered and the certificate of registration shall be auto generated. **The Registration Officer shall facilitate registration and shall not reject the application merely on superficial matters.**

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 Jharkhand, and submission of application in the form so provided, may be allowed.

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

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

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

(4) Any registration obtained by providing wrong information shall be liable to be cancelled provided that establishment has been given an opportunity to show cause, electronically or by registered post, as to why the certificate of registration should not be cancelled.

(5) The employer shall quote the Registration Number on all documents prepared or completed by him in connection with the Code or the Rules or the Regulations or the Scheme, as the case may be, and in all correspondence with the office concerned.

(6) Any change in the ownership, management or any particular furnished in Registration Form submitted on the specified portal shall be updated on the portal by the employer within thirty days of such change.

(7) The employer of an establishment to which the provisions of the Code apply and whose business activities are in process of closure may apply for cancellation of registration on the Online Portal after giving complete details of the dues payable under the Labour Codes:

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

(8) The registering officer shall maintain a register of establishment electronically in **Form-III** showing the particulars of establishment in relation to which certificates of registration have been issued by him.

(9) The employer shall, within thirty days of the commencement and completion of any work, intimate to the Inspector-cum-Facilitator, having jurisdiction in the area where the proposed establishment or as the case may be, the work is to be executed, intimating the actual date of the commencement, completion of work and cessation of establishment, as the case may be, in **Form-IV** annexed to these rules electronically and the same shall be auto-shared to EPFO and ESIC.

(10) (1). In case of Establishments existing before the commencement of the Code, there shall be no fees for registration if the applicant applies for registration within sixty days from the date of applicability of this Code, however, late fees to be paid for the purpose of grant of a licence under Sub-section (1) and (2) of Section 3 of an establishment shall be as specified in the table below, namely;

Sl.	Number of workers	Late Fees		
		Up-to 90 days	Up-to 180 days	More than 180 days
a.	10 but does not exceed 49 Workers	Rs. 10,000	Rs. 25,000	Rs. 1,00,000
b.	50 but does not exceed 100 Workers	Rs. 20,000	Rs. 50,000	Rs. 2,00,000
c.	101 but does not exceed 300 Workers	Rs. 40,000	Rs. 1,00,000	Rs. 4,00,000
d.	301 but does not exceed 500 Workers	Rs. 60,000	Rs. 1,50,000	Rs. 6,00,000
e.	501 but not exceeding 1000 Workers	Rs. 80,000	Rs. 2,00,000	Rs. 8,00,000
f.	1001 but not exceeding 5000 Workers	Rs. 1,00,000	Rs. 2,50,000	Rs. 10,00,000
g.	5001 and above Workers	Rs. 1,20,000	Rs. 3,00,000	Rs. 12,00,000

(2) In case of new Establishments (factory), the registration fee shall be as per **Schedule-A, Schedule B & Schedule-C**. The late fee shall be applicable as prescribed.

(3) In deciding the late fee the date of utility connection in the name of establishment owner/employer/occupier may be taken into account by Registering Officer.

**3A.** Fee for registration of the establishment, other than factories shall be paid at the following rates –

Sn	Number of workers employed in the establishment	Amount of fees (in rupees)
(a)	Exceeds 10 but does not exceed 20	300
(b)	Exceeds 20 but does not exceed 50	750
(c)	Exceeds 50 but does not exceed 100	1500
(d)	Exceeds 100 but does not exceed 200	3000
(e)	Exceeds 200 but does not exceed 400	6000
(f)	Exceeds 400	7500

The late fee shall be ten percent per annum of the registration fee.

**4. Appeal under Section 4-** (i) The employer aggrieved by the order of Registering Officer, may appeal against such order before the appellate officer appointed by the State Government for such purpose within thirty days from the date of receipt by him of such order, electronically.

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

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

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

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

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

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

**5. Notice of commencement and cessation of operation under Section 5.-** The employer of every establishment being factory (or relating to contract labour or building or other construction works) shall before commencement of manufacturing process or cessation of operation, submit to the

Registering Officer in **Form-IV**, electronically and the notice of cessation of operation shall be enclosed with a certificate that the payment of all dues to the workers employed in the establishment have been made and the premises are kept free from storage of hazardous chemicals and substances.

### **Chapter-III Duties of Employer and Employee**

**6. Annual Health Examination of employees under clause (c) of sub-section (1) of Section 6.-** Every employer of an establishment factory (and building or other construction work) shall arrange to conduct free of cost, medical examination for every worker annually i.e. within 120 days from the commencement of the every calendar year who has completed 45 years of age. The medical examination shall be conducted by a qualified medical practitioner as per Performa in the **Form-V**. The Medical Certificate shall be submitted by the qualified medical practitioner to the concerned employer and employee.

**7. Letter of appointment to employee under clause (f) of sub-section (1) of Section 6.-**(i) No employee shall be employed in any establishment unless he or she has been issued a letter of appointment in the prescribed format as appended to this Rule:

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

#### **Format**

- (i) *Name of employee:*
- (ii) *Father's name:*
- (iii) *Aadhar number:*
- (iv) *Labour Identification Number (LIN) / Registration Number of the establishment:*
- (v) *Universal Account Number (UAN)/Insurance Number (ESIC):*
- (vi) *Designation:*
- (vii) *Category of skill:*
- (viii) *Date of joining:*
- (ix) *Wages, Basic Pay & Dearness Allowance:*
- (x) *Other allowances including accommodation whichever is/are applicable:*
- (xi) *Avenue for achieving higher wages/higher position:*
- (xii) *Applicability of social security EPFO and ESIC benefits applicable:*
- (xiii) *Health check-up*
- (xiv) *Broad Nature of duties to be performed:*
- (xv) *Any other information:*
- (xvi) *Nature of Employment (Permanent, Temporary, Seasonal, Daily Wage Worker, Fixed Term Employment, Contract Worker, If any other Please specify):*

#### **Signature**

**(Occupier/employer/owner/agent/manager)**

**(ii) An Identity Card shall be issued to all workers** except Daily Wage Worker containing the Registration Number and Name of Establishment, Name, Father Name and Address of the Employee, Nature of Employment and Validity.

The Identity Card shall be duly signed by the Occupier/employer/owner/agent/manager.

## 8. Notice of accidents and dangerous occurrences under sub-section (1) Section 10 and Section 11.

(1) Where at any place in an establishment which is **factory or building or other construction** an accident occurs which results in the death or bodily injury of any person, the employer or occupier or manager of the establishment shall forthwith send a notice thereof in **Form-VI** electronically and inform by telephone or Mobile Phone by sending text message (Short Message Service i.e. SMS) to the Inspector cum-facilitator and Chief Inspector-cum Facilitator and District Magistrate or Sub-divisional Officer **and** the officer-in-charge of the nearest police station; and the family members / kin of the injured or deceased person.

(2) Where at any place in an establishment which is factory, building or other construction work, an accident occurs which results in bodily injury by reason of which the person injured is prevented from working for a period of forty eight hours or more immediately following the accident, the employer or occupier or manager of the establishment shall forthwith send a notice in **Form-VI** within twelve hours after the completion of forty eight hours, electronically to the Inspector-cum-Facilitator.

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

- (a) The Inspector-cum-facilitator;
- (b) District Magistrate **and** Sub-divisional Officer;
- (c) The Chief Inspector-cum-Facilitator

Provided that if in the case of an accident or dangerous occurrence, death occurs to any person injured by such accident or dangerous occurrence after the notices and reports referred to in the foregoing sub-rules have been sent, the employer or occupier or manager of the establishment (including any construction work) shall forthwith send a notice thereof by telephone and electronically to the authorities and persons mentioned in sub-rules (1) and (2) and also have this information confirmed in writing within 12 hours of the death. Provided further that, if the period of disability from working for 48 hours or more referred to in sub-rule (2) does not occur immediately following the accident, or the dangerous occurrence, but later, or occurs in more than one spell, the report referred to shall be sent to the Inspector-cum Facilitator in the prescribed form within 24 Hours following the hours when the actual total period of disability from working resulting from the accident or the dangerous occurrence becomes 48 hours.

(4) In case of every accident which is not fatal and in which any person is injured a supplementary notice in Form no. **Form-VIA** shall be sent to the Inspector and the Chief Inspector respectively within 7 days of the date on which the injured worker returns to work.

### SCHEDULE

The following classes of dangerous occurrences, whether or not they are attended by personal injury or disablement, 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) Explosion, explosion due to explosives, 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) 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;
- (vi) 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; contact work, excavation and collapse of transmission;
- (vii) Spillage or leakage of hazardous substances and damage to their container;
- (viii) collapse, capsizing, toppling or collision of transport equipment within the establishment;
- (ix) fall from height of any excavation, loading or transport machinery;
- (x) an instantaneous failure of a pillar, part of a pillar or several pillars of coal (i.e., a 'bump') in working below ground;
- (xi) a rock-burst in working belowground; a premature collapse of any part of the working;
- (xii) a breakage, fracture or failure of an essential part of any machine or apparatus whereby the safety of persons may be endangered;
- (xiii) a slide causing injury to any person, damage to any machinery, or interruption of normal mining operations;
- (xiv) failure of dump or side in opencast working; a blowout;
- (xv) 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;
- (xvi) a major uncontrolled emission of petroleum or chemical spillage;

**9. Notice of disease under sub-section (1) and (2) of Section 12-** (1) A notice in the following format shall be sent forthwith electronically to the Inspector-Cum Facilitator by the employer or occupier or manager of an establishment where any disease occurs as notified under the Third Schedule of the Code.

#### **NOTICE OF DISEASE**

- (1) *Name of establishment:*
- (2) *Nature of establishment:*
- (3) *Details of Patient:*
- (a) *Name of Patient:*
- (b) *Works number of Patient:*
- (c) *Address of Patient:*
- (d) *Precise occupation of patient:*
- (4) *Nature of disease from which patient is suffering:*
- (5) *Date of Detection of Disease:*
- (6) *Details of Medical Practitioner:*
- (7) *Has the case been reported to the Medical Officer?*

***Signature of employer or occupier or manager***

***Date:***

(2) If any qualified medical practitioner attends on a person who is or has been employed in an establishment and who is or is believed by the qualified medical practitioner to be suffering from any disease specified in the Third Schedule, the qualified medical practitioner shall without delay send a report in writing to the office of the Chief Inspector-cum-facilitator 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 establishment in which the patient is or was last employed.

**10. Duties of employee under clause (d) and (g) of Section 13.-** If an employee comes to know that of any unsafe or unhealthy condition in the establishment, he shall report to the employer, health and safety representative or safety officer (or agent or manager in case of mine) as soon as practicable, electronically or in writing or telephonically by text message (SMS).

**11. Rights of Employee under sub-section (3) of Section 14.-** 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, to the Inspector-cum-facilitator electronically or by registered post or speed post.

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

**12. State Occupational Safety and Health Advisory Board under sub-sections (1), (2) and (3) of Section 17.-** (1) The State Advisory Board shall consist of-

- a) Additional Chief Secretary/ Principal Secretary/ Secretary, Labour, Employment, Training and Skill Development Department, Jharkhand - **Chairperson**;
- b) Additional Chief Secretary/Principal Secretary/ Secretary, Industries Department, Jharkhand or his representative not below the rank of Director, Industries- Member *-ex-officio*
- c) Additional Chief Secretary/Principal Secretary/ Secretary, Mines & Geology Department, Jharkhand- Member *-ex-officio*
- d) Chairperson, State Pollution Control Board, Jharkhand- Member *-ex-officio*
- e) Labour Commissioner, Jharkhand - Member *-ex-officio*
- f) Director, Medical Services ESIC, Govt. of Jharkhand- Member *-ex-officio*
- g) five representatives of employers nominated by the State Government- Member
- h) five representatives of employees nominated by the State Government - Member
- i) five eminent persons connected with the field of Occupational Safety and Health, or representatives from reputed research institutions or similar other discipline, **out of which one member may be from State Health Society, Jharkhand**— Member
- j) Chief Inspector-cum-Facilitator - Member Secretary *-ex-officio*
- k) Special invitees for seeking inputs in specific matter nominated by the State Government

(2) The State Advisory Board may meet as often as necessary to discharge the functions as specified in Section 17(1) of the Code, but at least once in a year.

**13. Resignation.-** (1) A member of the State Advisory Board, not being an ex-officio member, may resign his office by a letter in writing addressed to the Chairperson of the State Advisory Board.

(2) The seat of such a member shall fall vacant from the date on which his resignation is accepted by the State Government, or on the expiry of thirty days from the date of receipt of the letter of resignation by the State Government whichever is earlier.

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

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

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

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

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

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

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

(ii) the non-official members of the State Advisory Board shall be paid travelling allowance for attending the meeting of the State Advisory Board at such places as per the instructions issued by Finance Department, Government of Jharkhand from time to time.

**18. Collection of statistics and portal for inter-State migrant workers under sub-sections (1) and (2) of Section 21.-**The employer shall submit the details of occupational safety and health statistics electronically on web portal **designated for the purpose Sub-Section (1) of Section 21 of the Code.**

**19. Safety Committee and Safety officers under Section 22.-**(1) Every establishment employing 500 or more workers except for the establishment prescribed under sub-section (1) of Section 22 shall constitute a safety committee consisting of representatives of employers and workers.

(2) The tenure of the safety committee shall be for three years. The safety committee shall meet at least once in every quarter.

(3) The representative of the workers shall be chosen by the registered trade Union. In case where there is no registered trade union the members may be chosen by the workers of the establishment.

Provided that there shall be adequate representation of the women workers in the committee.

(4) Safety Committee shall have the right to be adequately and suitably informed of –

(a) potential safety and health hazards to which the workers may be exposed at workplace;

(b) data on accidents as well as data resulting from surveillance of the working environment and of the health of employees, conducted at such establishments.

(5) The owner, employer, occupier, agent or manager shall, within a period of 15 days from the date of receipt of the recommendations of the Safety Committee shall take action to implement the recommendations.

**20. Composition of Safety Committee.** - (1) The representatives of the management on Safety Committee, shall consist of –

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

**(b) A Safety Officer shall be the Secretary of the Committee**

**(c) A Medical Officer wherever available.**

(d) A representative each from the production, maintenance and purchase departments.

(2) The worker's representatives on the Safety Committee referred to in sub-rule (1) shall be chosen by the workers.

(3) The minutes of the meeting of the Safety Committee referred to in sub-rule (1) shall be recorded.

(4) Safety Committee shall have the right to be adequately and suitably informed of –

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

**(5) Function and duties of the Safety Committee referred to in sub-rule (1) shall include –**

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

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

(c) creating safety awareness amongst all workers;

(d) undertaking educational, training and promotional activities;

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

(f) looking into the matters likely to cause danger to the safety and health of the workers and suggest corrective measures; and

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

**21. The qualifications, duties and number of safety officers under sub-section (2) of section 22 except mines-**

(1) A person shall not be eligible for appointment as a safety officer relating to Factory (including factory carrying on hazardous process) and building or other construction work unless he possesses –

(i) a recognised degree in any branch of engineering or technology and having practical experience in a supervisory capacity for a period of not less than 2 years; or

(ii) a recognised degree in physics or chemistry and has had practical experience in a supervisory capacity for a period of not less than 5 years; or

(iii) a recognised diploma in any branch of engineering or technology and has had practical experience in a supervisory capacity for a period of not less than 5 years; **or**

(iv) possesses a degree or diploma in industrial safety recognised by the State or Central Government in this behalf;

(2) Notwithstanding anything contained in sub-rule (1), any person who - (i) possesses a recognised degree or diploma in engineering or technology and has had experience of not less than 5 years in a department of the Central or State Government which deals with the administration of the Factories, Building or other Construction works and or

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

**(3). Factories or Building & Other Construction Works**, wherein 500 or more persons are ordinarily employed, Safety Officer(s) shall be appointed on a scale of at least one up to a total manpower of 500 and additional one for every additional 500 manpower.

**(4) Factory carrying on hazardous process and building or other construction work** wherein 250 or more persons are ordinarily employed, Safety Officer(s) shall be appointed on a scale of at least one up to a total manpower of 250 and additional one for every additional 250 manpower.

**(5) Duties of Safety Officers - (1)** The duty of a Safety Officer shall be to advise and assist in the full fill of its obligations, statutory, concerning prevention of personal injuries and maintaining a safe working environment and such duties shall include the following, namely. -

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

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

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

(iv) to provide advice on matters related to carrying out plant safety inspections;

(v) to carry out plant **or site** 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;

(vi) to render advice on matters related to reporting and investigation of industrial accidents and diseases;

(vii) to investigate selected accidents;

(viii) to investigate the cases of notifiable diseases listed in the Third Schedule to the Code;

(ix) to organise in association with the concerned departments, 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

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

(xi) The safety officer shall ensure that an appropriate emergency plan as required under these regulations is put in place and the requirements of the same are implemented.

(xii) The safety officer shall maintain in a bound paged book a detailed record of the work performed by him.

(xiii) to assist the manager in any other matter relating to safety.

(2) Except in an emergency, no duties other than those specified above shall be assigned to the Safety officer.

## **Chapter-V**

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

#### **22. Daily and weekly working hours under clause (b) of sub-section (1) of Section 25.-**

(1) No worker shall be required or allowed to work in an establishment for more than forty-eight hours in any week.

(2) the period of work of a worker shall be so arranged that inclusive of his intervals for rest, shall not spread over for more than twelve hours in a day.

(3) the period of works of workers shall not exceed five hours and that no worker shall work for more than five hours before he has had an interval for rest of at least half an hour.

(4) the working hours in a day may be modified subject to sub-rules (1), (2) and (3), so that the total number of working hours in a week shall be so fixed and followed.

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

(1) For the purpose of section 26, a **notice** shall be posted in a conspicuous place outside the office of every establishment showing the weekly day of rest. Where the weekly day of rest is not the same day for all persons employed in the establishment, the notice shall show the day of rest allowed to each relay, or set of persons or individual.

**24. Compensatory holidays.** - (1) Except in the case of worker engaged in any work which for technical reasons must be carried on continuously throughout the day, the compensatory holidays to be allowed under sub-section (3) of section 26 of the Code shall be so spaced that not more than two compensatory holidays are given in one week.

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

(3) Any compensatory holiday or holidays to which a worker is entitled shall be given to him before he is discharged or dismissed and shall not be reckoned as part of any period of notice required to be given before discharge or dismissal.

**25. Extra Wages for overtime under Section 27.** - (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 twelve hours in any one day under the following works and circumstances in factories, 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) exceptional press of work and

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

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

**26. Circumstances for exemption from restriction on double employment in factory under section 30-**As may be notified by State Government from time to time.

## Chapter-VI

### Maintenance of Registers, Records and Returns:

**27. Notice of periods of work under sub-section (2) of Section 31.-** (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 VII** and copy of such notice shall be sent to Inspector-cum-facilitator electronically or by registered post.

**28. Maintenance and production of reports, registers and other records under Section 33.-** (1) Every employer shall-

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

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

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

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

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

(2) Every employer shall issue wage slips, electronically or manually to the employees in Form VIII(C) as prescribed under rule 52 of Code on Wages (Jharkhand) Rules, 2021 and sub-section (3) of Section 50 of the Code on Wages, 2019 before one day of payment of wages to the employee.

(3) In respect of establishment which are required to maintain register under the rules framed under the Code on Wages 2020, Social Security Code, 2020 the following registers and wage slips required to be maintained by the employer of the establishment under those Codes and rules made there under shall be deemed to be maintained by the employer under these rules, namely:-

- (a) Register of employees
- (b) Register of Attendance-cum-Muster Roll
- (c) Register of Wages, over time and deductions
- (d) Wage slip

All registers and other records required to be maintained under the Code and Rules made there under shall be maintained complete and up-to-date and unless otherwise provided for, shall be kept at an office or the nearest convenient building within the precincts of the work place or at a place within a radius of three kilometers.

**29. Display of notice board.**-Every employer shall cause to display at the conspicuous place of the workplace of the establishment under his control, notice showing the name and address of the establishment, hours of work, wage period, date of payment of such wages, details of accident and dangerous occurrence in the establishment for the last five years, name and address of the Inspector-cum-facilitator having jurisdiction to such establishment and date of payment of unpaid wages to such workers in English **and** Hindi.

**30. Return.**- (i) Every employer of an establishment shall annually upload a return relating to such establishment in **Form-IX** to Inspector-cum-facilitator having jurisdiction so as / Chief Inspector-cum-facilitator not later than 1st February following the end of each calendar year with a **copy to Director General, Labour Bureau electronically**

(ii) The licence shall be liable to be cancelled (a) if above return is not uploaded till 31<sup>st</sup> March of each calendar year or (b) incorrect / wrong information has been provided in the return. The Occupier / Manager **of** establishment (factory) shall be given an opportunity to show cause, electronically or by registered post, as to why the certificate of registration should not be cancelled.

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

Every such Register shall be communicated in electronic form to Inspector- cum - facilitator once in three months, who shall analyze the safety practices of the concerned factory and shall submit a report to the Chief Inspector-cum-facilitator

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

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

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

## Chapter-VII

### Inspector-cum-facilitator and Other Authority

**33. Qualification and Experience of Chief Inspector-cum-Facilitator under sub- section (5) of Section**

**34.-** The Labour Commissioner, Jharkhand will be the Chief Inspector-cum-Facilitator for the purposes of the execution of the Code in the State, except the following provisions where the Chief Inspector of Factories, Jharkhand will be the Chief Inspector-cum-Facilitator:

- i. **Occupational Safety and Health (Chapter IV)**
- ii. **Factories (Part VII of Chapter XI)**
- iii. **Notice of accidents Section 10 and 11**
- iv. **Clause (b) of Section 6**

(a) The qualification for the post of Chief Inspector-cum-Facilitator and other Inspectors-cum-Facilitators for various establishments shall be **as per Schedule V and Schedule VI** appended to these rules.

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

(1) An Inspector-cum-facilitator shall take samples or substances in an establishment as per the inspection scheme mandated under the Online Portal after informing the employer of the establishment, taken in the manner hereinafter provided a sufficient sample of any substance used or intended to be used in the establishment, such use being—

(a) in the belief of the Inspector-cum-Facilitator 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 person informed under that sub-section unless such person will fully absents himself, divide the

sample into three portions and effectively seal and suitably mark them, and shall permit such person to add his own seal and mark thereto.

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

(4) The Inspector-cum-facilitator shall-

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

(b) forthwith send the second portion to a Government Analyst or 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.

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

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

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

(3) An Inspector shall, for the purpose of giving effect to the provisions of the Code, have powers to do all or any of the following things, that is to say :-

(a) to photograph any worker; to inspect, examine, measure, copy, photograph, sketch or test, as the case may be, any building or room, any plant, machinery, appliance or apparatus, any register or document, or anything provided for the purpose of securing the health, safety or welfare of the workers employed in a factory;

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

(c) to file a complaint in the Court against the manager or the occupier of a factory or against both or against any other person liable to be punished under the Act and to prosecute, conduct or defend before a court any complaint or other proceeding arising under the Act or in discharge of his duties as an Inspector;

(d) to satisfy himself at each inspection that the provisions of the Code and of these rules regarding the health and safety of the workers employed in the factory are observed;

(e) To enquire into and investigate the cause of any accident or disease, or the possibility of any accident or disease;

- (f) to note how far the defects pointed out at a previous inspection have been removed and how far orders previously issued have been complied with;
- (g) to point out all such illegalities, defects or irregularities as he may observe during the course of his inspection and to forward a copy of the inspection note to the manager or occupier of a factory for removal of the illegalities, defects or irregularities electronically or by registered post
- (h) to seize any record or document for the purpose of examination and satisfying himself that the provisions of the Act and the rules there under were complied with or which he may consider relevant in respect of any offence under the Act which he may have reasons to believe or suspect has been committed by the occupier or the manager;
- (i) to direct by an order in writing the occupier or the manager to produce either personally or through his agent any prescribed record or register at his office or at any other place where he may be temporarily camping or at any other convenient place; and
- (j) to direct by an order in writing the manager or the occupier or any other employee of a factory to appear before him personally at his office, or at the place where he may be temporarily camping or at any other place, to be examined and interrogated by him on any matter connected with the compliance of the provisions of the Act or the Rules.
- (2) Every order passed under the Act and these rules, shall be served electronically on the manager / occupier of a factory –
- (a) by delivering a copy of it to him personally or at his office, or
- (b) by registered post.

**36. The specialised qualification and experience, duties and responsibilities of experts to be empanelled under section 37-** The specialised qualification and experience, duties and responsibilities of experts to be empanelled under section 37 **for such start up establishment or class of establishment** shall be notified by the State Government from time to time.

**37. The manner of providing alternative employment under sub-clause (d) of clause (A) of sub-section (1) of section 38-** If any person whose employment has been affected by an order issued under Sub-Clause (a) of Clause (A) of Sub-Section (1) of Section 38, the Inspector-Cum-Facilitator may give direction to the occupier to provide alternative employment to the person whose employment has been affected in the same capacity and under same service condition to other alternative employment in his factory or other factory which is under the control of that Occupier.

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

**39. Other establishment engaged in the dangerous occupation or processes under clause (a), (b) and (c) of sub-section (2) of section 42-** For the purpose of clause (a), (b) and (c) of sub-section (2) of section 42, the State Government may notify establishment engaged in dangerous occupations and processes from time to time.

**40. Duties of Medical Officer under sub-section (2) of Section 42.-**(1) On receipt of a reference under clause (c) sub section (2) of section 42 of the code, the Medical Officer shall, after giving prior notice regarding date, time and place for medical examination and upon examining the person sent for such examination, prepare the age and fitness certificate and deliver the same to the manager of the establishment concerned after retaining a copy thereof.

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

(3) Medical Officer shall carry out such examination and furnish such report as State government may direct:

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

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

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

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

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

## CHAPTER – VIII

### SPECIAL PROVISION RELATING TO EMPLOYMENT OF WOMEN

**41. Employment of Women in establishment under Section 43.-** (1) 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 **written** consent of women employ shall be taken;

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

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

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

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

(f) Provide safe, secure and healthy working condition such that no women employee is disadvantaged in connection with her employment.

(g) **Not less than three (3) women employees shall be on duty at any work place at the same time.**

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

**42. Adequate Safety of employment of women in dangerous operations under Section 44.-**The State government may declare by notification the class of establishments and the scheme, and standards for safeguarding of women in hazardous and dangerous processes

**CHAPTER-IX**  
**CONTRACT LABOUR**

**43. Conditions of License under sub-section (3) of Section 47.-** (1) The contractor shall ensure that:

- (a) the hours of work shall conform to these rules relating to Section 25;
  - (b) the wages shall be paid in accordance with the Code on Wages, 2019 (29 of 2020).
  - (c) if the contract labour of the contractor is working at the premises of the principal employer, then, it shall be the responsibility of the principal employer to provide the facilities or amenities such as toilet, washroom, drinking water, bathing facilities if required, changing room, first aid box, canteen and crèche; and
  - (d) all other facilities and entitlements shall be provided by the contractor.
- (2) In case the contractor fails to make payment of minimum wages to the contract labour, then, the Labour Commissioner, Jharkhand or his representative, shall cause such payment to be made to the contract labours who have not been paid, out of the security deposit referred to in rule 76 including by invoking the bank guarantee.
- (3) The contractor shall intimate within fifteen days of the receipt of a contract work order about the details of the contract work order in the manner as specified in rule 47.

**44. Form and manner of application for contractor license under of sub-section (1) of Section 48.-** Every application by a contractor within a state for the grant of a license shall be made on-line electronically through the designated Portal of the State Government in **Form-H** to the authority referred to in Section 119 (hereafter in the chapter referred to as authority).

**45. Forms, terms and conditions of license.-** (1) Every license granted under this chapter shall be in **Form-I**.

- (2) Every license granted or renewed is subject to the following conditions, namely:—
- (i) the license shall be non-transferable;
  - (ii) the number of contract labour employed by the contractor shall not, on any day, exceed the maximum number specified in the license;
  - (iii) save as provided in these rules, the fees paid for the grant, or as the case may be, for renewal of the license shall be non-refundable;
  - (iv) the rates of wages payable to the contract labours by the contractor shall not be less than the rates fixed under the Code on Wages, 2019 and where the rates have been fixed by agreement, settlement or award, shall not be less than the rates so fixed.

**46. Procedure for issue of license under sub-section (2) of Section 48.-** (1) Before a license is issued under this chapter, bank guarantee for an amount of security calculated at the rate of Rupees 1000/- for each of the contract labours to be employed, in respect of which the application for license has been made, shall be deposited by the contractor with the authority for performance of the conditions of the license and compliance with the provisions of the Code and the rules made there under.

If contractor proposes to engage one lakh or more but less than one lakh fifty thousand contract labours an amount of security shall be Rs. 10 Crores, engages one lakh fifty thousand but less than two lakhs contract labour an amount of security shall be Rs. 15 Crores, engages two lakh or more contract labour an amount of security shall be Rupees. 20 Crores.

(2) Wherein the issued contract license had expired, based on the request of the application FORM-XIV, the authority may adjust the security deposit under sub-rule (1) in respect of his application for new license.

(3) The fees to be paid for the grant of a license shall be as specified in the table below, namely:-

(a)	No license is required up to 49 contract labour	Nil.
(b)	50 and above but not exceeding 100 contract labour	Rs. 1,000
(c)	101 and above but not exceeding 300 contract labour	Rs. 2,000
(d)	301 and above but not exceeding 500 contract labour	Rs. 3,000
(e)	501 and above but not exceeding 1000 contract labour	Rs. 5,000
(f)	1001 and above but not exceeding 5000 contract labour	Rs. 10,000
(g)	5001 and above but not exceeding 10000 contract labour	Rs. 20,000
(h)	10001 and above but not exceeding 20000 contract labour	Rs. 30,000
(i)	20001 and exceeding contract labour	Rs.40,000

**47. Renewal of license under sub-section (3) of Section 48.-** (1) Every contractor shall apply electronically on the designated Portal of the State Government to the licensing authority for renewal of the license.

(2) Every such application shall be submitted on the Portal referred to in sub-rule (1) at least 30 days prior to expiry of license period but not before 90 days of such expiry of license.

(3) The fee chargeable for renewal of the license shall be the same as for the grant of license under rule 43.

(4) If the application for renewal is not received within the time specified in sub-rule (2), an additional fee of twenty five per cent, shall be payable for such renewal.

(5) It shall be the responsibility of the authority concerned to renew license within 30 days

electronically.

**48. Refund of security deposit.-** (1) On expiry of the period of license the contractor may, if he does not intend to have his license renewed further, make an application electronically to the licensing authority for the refund of the security deposited by him (in form of bank guarantee) along with copy of licence so expired and notice of completion of work and bank details in which amount is required to be refunded.

(2) If the 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 contractor's security deposit, the amount to be forfeited shall be deducted from the security deposit, and balance, if any, shall be refunded to the contractor within 30 days from the making of application under sub-rule (1) Any application for refund shall, as far as possible, be disposed of within 30 days of the making of such application.

**49. Responsibility of contractor under sub-section (4) of Section 48.-** (1) The rates of wages payable to the workers by the contractor shall not be less than the rates fixed under the Code on Wages, 2019 (29 of 2019) and where the rates have been fixed by agreement, settlement or award, not less than the rates so fixed.

(2) In case where the contract labour employed by the contractor performs the same or similar kind of work as the worker directly employed by the principal employer of the establishment, the holidays, hours of work and other conditions of service of the contract labour of the contractor shall be the same as applicable to the workers directly employed by the principal employer of the establishment on the same or similar kind of work. In case of any dispute whether the work is of similar kind, the matter be referred to the concerned Joint Labour Commissioner whose decision shall be final.

(3) In other cases the wage rates, holidays, hours of work and conditions of service of the contract labour of the contractor shall be such as specified under the Code and rules made there under.

(4) All contract labour shall be made member of Employees' Provident Fund Organisation (EPFO) and Employees' State Insurance Corporation (ESIC) subject to applicability as under respective provisions of the Code on Social Security, (36 of 2020).

(5) The contractor shall notify any change in the number of contract labours or conditions of work to the Authority, electronically.

**50. Intimation of work order and time limit for intimation under section 50.-**

(1) Every contractor shall within fifteen days of the receipt of a contract work order shall intimate about the contract work order containing the details such as the name of the principal employer, address of the premises where work is being undertaken, date of commencement of the contract work, the number of contract labour employed under that work order, duration of work orders to the authority.

(2) the details of work order shall be sent by the contractor or his Authorized Representative.

(3) The intimation shall be sent electronically on the designated portal of the State Government; or by e-mail or by registered post or by speed post to the Labour Commissioner, Jharkhand; the licensing authority and the Labour Superintendent, having jurisdiction.

**51. Revocation or suspension of license under sub-section (2) of Section 50.-**

(1) If the contractor has failed to give intimation under sub-section (1) of Section 50 to the designated authority or if the authority is satisfied that the licence has been obtained by misrepresentation or suppression of any material fact or if the contractor has failed to comply with the conditions subject to which licence was granted or the contractor has contravened any provision of Part-I of Chapter-XI of the Code or rules made thereunder, the Authority shall issue a show cause notice of fifteen days to the contractor electronically or by registered post or by speed post.

(2) On receipt of the reply if any, from the contractor within fifteen days of the receipt of the notice, the licensing authority shall examine the same and he may pass a speaking order recording the reasons for revocation or suspension or otherwise and communicate the order to the contractor electronically or by registered post or speed post. A copy of the Order shall also be endorsed to the Labour Commissioner, Jharkhand and the Deputy Labour Commissioner having jurisdiction.

(3) If the contractor fails to comply with the order in sub-rule (1), the licencing authority may forthwith pass an order of revocation of license, recording the reasons thereof and communicate to the contractor electronically or by registered post or speed post. The copy of the order shall be endorsed electronically to the Labour Commissioner, Jharkhand and the Deputy Labour Commissioner having jurisdiction.

**52. Appeal under sub-section (1) of Section 52.-** The appellate authority under sub-section (1) of section 52 shall be the authority as notified by the State Government.

- 53. Responsibility of payment of wages under section 55.-** (1) The contractor shall fix the wage periods in respect of which wages shall be payable and no wage period shall exceed one month.
- (2) The wages of every person employed as contract labour in an establishment or by a contractor shall be paid before the expiry of seventh day after the last day of the wage period in respect of which the wages are payable.
- (3) The wages shall be disbursed through bank transfer or electronic mode only.  
Provided that where it is not at all practicable to disburse payment in the mode specified above, then, the payment shall be made in cash or other suitable mode after obtaining prior permission from the principal employer on that behalf with due intimation to the licencing authority and the Divisional Labour Commissioner having jurisdiction.
- (4) The wages of contract labours shall be paid without any deductions of any kind, except those specified by the State Government by general or special order in this behalf or permissible under the Code on Wages 2019 (29 of 2019), by the contractors to the contract labour.
- (5) A notice showing wage period and date and time of disbursement of wages of contract labour shall be displayed at the place of work and a copy sent by the contractor to the principle employer electronically or in person under acknowledgement.
- (6) Every contractor (including the contractors employing less than 50 contract labours) shall send **half-yearly return in Form-IXA** so as to reach the licensing authority concerned not later than 30 days from the close of the half year, electronically, that is to say January to June and July to December.
- (7) In case the contractor fails to make payment of wages to the contract labour within 7 days of completion of wage period, then the principal employer shall take necessary action and make payment of wages in full or the unpaid balance dues, as the case may be, to the concerned contract labour employed by the contractor within 15 days and recover the amount so paid from the contractor either by deduction from any amount payable to the contractor under any contract or as debt payable by the contractor or from the security deposit lying with the Principal Employer.
- (8) Every principle employer of an establishment shall submit **annual return in FORM-IX (Part-III)** so as to reach the licencing authority and Deputy Labour Commissioner, having jurisdiction so as to reach him not later than 1st February following the end of each Calendar year electronically, except in cases of contract which undertake to produce given result.

**54. Making payment of wages from the security deposit amount under sub-section (4) of Section 55.-** If the contractor or principal employer does not pay the wages to the contract labour employed by him, the Labour Commissioner, Jharkhand or his representative or the competent officer 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 license will be liable to be suspended.

**55. Experience Certificate under section 56.-** Every concerned contractor shall issue on demand, experience certificate in Form-K to the contract labour giving details of the period, work performed, experience gained in various fields performed by such contract labour.

**56. The form and manner of making application under clause (b) of sub-section (2) of Section 57.-** (1) If a question arises as to whether any activity of an establishment is a **core activity** or otherwise, the aggrieved party may make an application to the State Government for decision.

(2) The said application shall contain complete details of the activity in question and manufacturing processes of the establishment.

(3) The such application shall also contain the justification for making such an application.

(4) The application shall be accompanied with such documents are deemed necessary by the applicant.

(5) The application may be submitted to the State Government directly or through the **Labour Commissioner, Jharkhand**.

(6) Where the state government refers any such question **suo-moto** or refers the application to designated authority under clause (a) of sub-section (2) of section 57, such designated authority shall send a report to the State Government **within a period of two months from the date of receipt of such question or application** and thereafter the State Government shall decide the question within two months from the date of receipt of such report.

**57. Period of making report and the period of deciding the question under clause (c) of sub-section (2) of Section 57.(Core Activity)–** On receiving the application under clause (b) of sub-section (2) of Section 57, the **Labour Secretary, Government of Jharkhad** shall, if deem proper, refer the application to the **Labour Commissioner, Jharkhand** for making such enquiry as may be required and the Labour Commissioner, Jharkhand shall submit the report/ recommendation to the Labour Secretary, Government of Jharkhad **within a period of two months from the date of receipt of such question or application** for taking appropriate action under these rules and the Secretary shall

decide the matter within one month from the date of receipt of such report / recommendation and communicate the said decision of the Government to the parties through electronically or by registered post or by speed post for implementation of the said order of the Government.

## CHAPTER-X

### INTER-STATE MIGRANT WORKERS

**58. Journey allowance to Inter-State Migrant Worker under section 61.-** The employer shall pay a lump sum amount on account of fare for to & fro journey to inter-state migrant worker by train (not less than II Class Sleeper) or by bus or any other mode of passenger transport from the place of employment to the place of residence in the home state in the event of the following, namely:

if he has worked for a period of not less than one hundred and eighty days in the concerned establishment(s) in preceding twelve months:

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

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

**60. Study of inter-state migrant workers under section 64.-** The State Government may identify the studies to be carried out to promote safety, health and welfare of *inter-state* migrant workers. Wherever required, the State Government may also consult the Central Government or other State Governments or expert organizations involved in the safety, health and welfare of *inter-state* migrant workers.

## CHAPTER-XI

### AUDIO-VISUAL WORKERS

**61. Agreement for Audio-visual worker and authority to whom a copy of the agreement shall be forwarded by the producer under sub-section (3) of Section 66.-**

(1) The Form of agreement for the audio-visual workers with the producer is given in **Form-M**. The agreement shall be registered with the competent authority as may be notified by the State

Government.

(2) A copy of the agreement referred to in sub-rule (1) with respect to the employment of the audio-visual worker shall, if such audio-visual worker is covered under the provision of any enactment for the time being in force for providing the benefit of provident fund to him, also be forwarded by the producer of the audio-visual programme electronically on the designated Portal of the State Government, or by registered post or by speed post, to the Divisional Labour Commissioner having jurisdiction.

**62. Procedure for reference of disputes to a Conciliation Officer or a Tribunal under sub-section (4) Section 66.-** The procedure for reference of dispute to a conciliation officer or a tribunal shall be in conformity with the Industrial Relations, Code 2020 (35 of 2020) and Rules framed there under.

## CHAPTER-XII BEEDI AND CIGAR WORKERS

**63. Form of application and the payment of fees under sub-section (2) of Section 74.-** (1) Every application under sub-section (2) of Section 74 for grant of licence shall be made **online** electronically through the designated portal of the State Government in to the licensing authority referred to in section 119 (hereafter in the chapter referred to as authority) and on payment of fees as specified in the table below, namely:-

### FEE FOR NEW LICENCING / RENEWAL

Sl. No.	No. of Maximum Employees	Fee for Industrial Premises in which Power-driven Machinery is Used (in Rs.)	Fee for Industrial Premises in which Power-driven Machinery is Not Used (in Rs.)	Late Fee (in Rs.)
1.	Does Not Exceed 10	330	220	In case the application for new licence or renewal in licence is submitted after the prescribed time limit of 30 (Thirty) days, the competent authority may, after giving due opportunity to the applicant
2.	Exceed 10 But Does Not Exceed 20	660	440	
3.	Exceed 20 But Does Not Exceed 50	1,650	1,100	

4.	Exceed 50 But Does Not Exceed 100	3,300	2,200	to show cause for delay and by an order in writing, impose a penalty fee upto 3 (Three) times the fee payable in respect of the said industrial premises
5.	Exceed 100 But Does Not Exceed 250	6,600	5,500	
6.	Exceed 250	12,100	11,000	

### FEE FOR AMENDMENT

Sl. No.	Amendment Fee (in Rs.)	Late Fee (in Rs.)
1.	5	In case the application for new licence or renewal in licence is submitted after the prescribed time limit of 30 (Thirty) days, the competent authority may, after giving due opportunity to the applicant to show cause for delay and by an order in writing, impose a penalty fee upto 3 (Three) times the fee payable in respect of the said industrial premises

(2) Every licence granted or renewed under section 74 in **Form-N** shall be subject to the following conditions, namely :-

- (i) the manufacturing process shall be carried on only in that part of the industrial premises as specified for the purpose in the licence;
- (ii) the maximum number of employees employed in the industrial premises shall not on any day exceed the number specified in the licence;
- (iii) power-driven machinery not specified in the licence 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 on such premises;
- (v) the licence shall not be transferable;
- (vi) the fees paid for the grant or renewal of the licence shall be non-refundable.

(3) Before granting a licence, the competent authority shall also take into considerations whether the site of any industrial premises is proposed to be altered, or whether any industrial premises has

been closed by the applicant during the period of twelve months immediately preceding the date of the application with a view to causing prejudice to the interests of the labour.

**64. Manner of preparing the plan of the place or premises under sub-section (3) of Section 74.-**

Application for licence shall be accompanied by a plan of the place or premises showing-

- (i) the site of such place or premises, the areas therein 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 plan, elevation and necessary cross-sections of, the details relating to natural lighting, ventilation, means of escape in case of fire, portion of the plant and machinery, if any used, aisles and passageways in or in relation to, the various buildings which are intended to be used for manufacturing processes;

**65. Other matters under clause (e) of sub-section (4) of Section 74.-** The State Government may prescribe such other matters relating to the beedi and cigar workers under clause (e) of sub-section (4) of section 74, by notification from time to time.

**65. Fees for renewal under sub-section (6) of Section 74.-** (1) Application shall be made to the licensing authority electronically on the designated Portal of the State Government for renewal of the license.

(2) Every such application shall be submitted on the Portal referred to in sub-rule (1) at least 30 days prior to expiry of license period but not before 90 days of such expiry of license.

(3) The fee chargeable for renewal of the license shall be the same as for the grant of license.

Provided that if the application for renewal is not received within the time specified in sub-rule (2), an additional fee of twenty five per cent per annum, shall be payable for such renewal.

(4) It shall be the responsibility of the authority concerned to renew license within fifteen days. Electronically or otherwise.

**66. Time of filing appeal and fees under section 75.-** An appeal under section 75 shall be made electronically or by registered post or by speed post, within a period of 30 days from the date of receipt of the order sought to be appealed against. The fees payable in respect of an appeal under section 75 shall be Rs. 1000.

**67. Record of Outside Work.-** The record to be maintained by the employer of the work permitted under sub-section (1) of Section 76 to be carried on outside the Industrial premises shall be in **Form-P**.

## CHAPTER-XII FACTORIES

### 68. Rules in respect of factory or class or description of factories under sub-section (1) of section 79

(1) **Submission of plans-** The State Government or **Chief Inspector-Cum-Facilitator shall** require, for the purposes of the **Code**, submission of plans of any factory which was either in existence on the date of commencement of the **Code** or which has not been constructed or extended since then. Such plans shall be drawn to the scale showing –

- (a) the site of the factory and immediate surroundings including adjacent buildings and other structure, roads, drains, etc.;
- (b) the plan, elevation and necessary cross sections of the factory buildings indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire, and the position of the plant and machinery, aisles and passageways; and
- (c) such other particulars as the State Government or the Chief Inspector-Cum -Facilitator, as the case may be, may require.

**(2) Approval of plans:** (1) No site shall be used for the location of a factory or no building shall be constructed, reconstructed, extended or taken into use as a factory or a part of a factory unless an application in **Form no-XIII** along with the documents and plan as prescribed in sub-rule (2) has electronically been submitted to, and the plans submitted have been approved by the Chief Inspector – cum- Facilitator and previous permission in writing in respect thereof has been obtained, subject however, to the provisions of Section 79 (1)(b)

(2) The application mentioned in sub-rule (1) shall be in and shall be accompanied by the following documents, namely:-

- (a) A flow diagram or chart of the manufacturing process to be carried on in the factory or in the part of factory.
- (b) A brief description of all the manufacturing processes and work proposed to be carried on in the factory or in the part of the factory, and
- (c) The following plans and drawing each in triplicate, drawn to scale :-
  - (i) site plan of the factory showing its surrounding including other buildings, structures, open land, roads, streams of rivers adjacent or close to the site.
  - (ii) *lay out*. – plan of the factory and its premises,
  - (iii) plan, elevations and all necessary cross-sections of all the buildings, indicating relevant details including those relating to natural lightning, ventilation and means of escape in case of fire and showing clearly the position of the plant, machinery, aisels, passageways and gun-ways.

(3) If the Chief Inspector-Cum-Facilitator is satisfied that the plans are in consonance with the requirements of the Code he shall, subject to such conditions as he may specify, approve them electronically; or he may call for such other particulars as he may require to enable such approval to be given electronically.

Provided that the Chief Inspector may, if on account of practical difficulties, is to satisfied, dispense with the details relating to the position of the plant, machinery, aisles, passage-ways and gun-ways from the plan.

(4) The Chief Inspector may require the applicant to furnish such other documents, information and practicals as may be lacking or as he may consider necessary for the purpose of examination and approval of the plans.

(5) The Chief Inspector shall communicate his decision to the applicant in writing and in case any plan is approved the Chief Inspector shall return one copy of each of the approved plans along with the conditions, if any, imposed by him, and with such remarks as he may consider necessary.

(6) The map approval obtained by providing wrong information shall be liable to be cancelled provided that the management has been given an opportunity to show cause, electronically or by registered post, as to why the approval of map should not be cancelled.

(7) "The processing fee payable for the approval of plan shall be one fourth of the fee prescribed for its grant of factory licence and in case of extension or re-construction of the factory the processing fee payable shall be one tenth of the prescribed fee for its grant of factory licence."

(8) If no order is communicated to the applicant within thirty days from the date on which the application has been uploaded through online, the permission applied for shall be deemed to have been granted and certificate of deemed approval shall be automatically sent to the applicant electronically.

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

Form of Certificate of Stability

1. Name of the factory .....
2. Village, town and district  
in which the factory is situated .....
3. Full postal address of the factory .....
4. Name of the occupier of the factory .....
5. Nature of manufacturing process to  
be carried on in the factory .....
6. Number of floors on which  
workers will be employed .....
6. Description of tests (attach) with validity period:

I certify that I have inspected the building/buildings, the plans of which have been approved by the Chief Inspector – cum- Facilitator in his letter No.... ..... dated ..... and examined the various parts including the foundations with special reference to the machine, 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 in his letter mentioned above, that it is/they are structurally sound and that its/their stability will not be endangered by its/their use as factory/part of a factory for the manufacture of ..... for which the machinery, plant, etc. installed are intended.

Signature ... ..

Qualification ... ..

Address ... ..

Date ... ..

If employed by a company or association, name and address of the Company or Association;

The certificate of stability shall be signed by a "competent person" as defined below: -

"Competent person" means a person holding any of qualifications exempting him from passing Parts A and B of the Associate Membership Examination of the Institution of Engineers (India) whom the Chief Inspector considers competent for any specified purpose by virtue of his experience.

(4) **Applications for registration and grant of licence.**- The occupier of every factory shall submit to the Chief Inspector-Cum-Facilitator an application **electronically** in **Form XIV** for the registration of the factory and grant of a licence :

(5) **Grant of licence-** (i) The Occupier of every factory, shall at least fifteen days before commencing any manufacturing process in any factory upload through online an application for grant of the licence in the prescribed **Form XIV** along with online payment of licence fee as per Schedule A, Schedule B & Schedule C

(ii) (a) The Occupier shall send and intimate to the Inspector immediately after the commencement of manufacturing process. (b) The premises shall be deemed to be licenced from the date of intimation of commencement of manufacturing process until such date the Inspector refuses electronically to grant the licence.

“(c) Every license granted or renewed under this chapter shall remain valid or be in force for a minimum period of ten year. The licence so granted or renewed shall remain valid up to 31<sup>st</sup> December of the applied period. Provided that the fee prescribed under Schedule ‘A’ ‘B’ and ‘C’ is deposited for the period of application.”

“Provided further that in case of temporary factory or the nature of their activity demands for the Chief Inspector may issue factory licence for less than ten year validity on an application made in this behalf by an occupier.”

F.A

(d) The licence shall be 

No.....
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 exhibited at a conspicuous place in the factory near the main entrance, and a signboard with the licence number allotted to the factory in bold letters shall be displayed at the main entrance: Provided that the sign board shall not be smaller than 12"x 9" and the letters thereon not less than 2" in height. The letters on the signboard shall be arranged as follows: -

(iii) The Inspector-cum-facilitator on notice any defect in the license application or violation of any provision may be a speaking order, SMS or Email and after giving the applicant a reasonable opportunity of being heard, refuse to grant a licence electronically:

Provided that if no order is communicated to the occupier within a period of 30 days from the date on which the occupier has sent intimation under sub rule (ii) (a), the license shall be deemed to have been granted and thereupon the license shall be issued forthwith.

(iv) If the grant of license has not been refused in accordance with sub-rule (iii), the Inspector shall grant the license in **Form No. XV** and send the license to the applicant electronically.

(6) **Auto-renewal of licence-** (i) Initially the licence shall be issued for the period of 10 years and it shall be auto-renewal thereafter for the number of years applied for, subject to maximum of ten years at one time and on payment of prescribed fee which is same as per the Schedule. Provided the Factory meets the safety guidelines.

(ii) "The annual fee for auto-renewal of licence shall be the same as that for grant thereof:

If the application for renewal of licence is not received on or before 15<sup>th</sup> January the fee payable for renewal of licence shall be one and half times of the annual fee prescribed in Schedule A, B & C for applications received up to 31<sup>st</sup> March. The fee for renewal of licence will be two times of the annual fee prescribed in schedule A, B & C for applications received from 1<sup>st</sup> April and up to 30<sup>th</sup> June.

(iii) A licence may be renewed by the Inspector of Factories with the approval of the Chief Inspector of Factories:

Provided that the State Government may call for the relevant documents from the Chief Inspector of Factories or the Inspector of Factories of the area concerned and review the decision taken in the case and wherever such review is made the State Government's decision in the matter will be final.

(iv) "In case the application for the renewal of licence is not received within six months after the expiry of licence, the licence of the factory shall remain cancelled.

Provided that in every such case of cancellation of licence, the licence may be reinstated by the Inspector of Factories with the approval of the Chief Inspector of Factories, if he is satisfied that the delay was due to any reason beyond control of the occupier or due to any other reason of similar nature. In such cases the fee for renewal of licence will be two times of the annual fee prescribed in Schedule A, B and C."

(7) **Amendment of licence-** (i) The occupier of a factory shall, within fifteen days of occurrence of any change in the name or in particulars of the maximum horse power installed or maximum number of persons employed, apply through online for amendment of the licence stating the nature of amendment to be made and the reasons there for together with online payment of prescribed fee to the Inspector of Factories **in Form XVI**.

(ii) A licence may be amended by the Inspector of Factories with the approval of the **Chief Inspector-Cum-Facilitator** / State Government.

(iii) When there is any increase in the number of workers employed or in the rated capacity of the machinery and plants installed in terms of H.P. or K.W. installed, resulting in an increase in the amounts of fee payable for the licence as compared to the fee already paid or when there is any other change requiring amendment in the licence already granted or renewed, the occupier of the factory shall, within 15 days of the increase or change as the case may be, submit an application in **Form XVI** to the Inspector of Factories for amendment of the licence, stating therein the nature of amendment required and the reasons therefor.

(iv) “The fee for the amendment of licence shall be [five hundred] rupees.”

Provided that when the amendment is required due to the increase in the number of workers or in the rated capacity of the machinery and plants installed the fee for amendment of licence shall be five hundred rupees plus the amount by which the fee that would have been payable if the licence had originally been issued in the amended form exceeds the fee originally paid for the licence.

(v) The licence already granted shall cease to remain valid after the change or increase in the number of the workers or in the installed capacity as aforesaid unless the occupier has filed an application and paid the required fee as laid down in these rules within fifteen days from the said date of change or increase.

(vi) Every such application for the amendment of a licence will be approved within 30 days forwarded by the Inspector of Factories concerned to the Chief Inspector for approval before the licence is amended.

(8) **Transfer of licence.** (i) When there is any change of the occupier of factory before the expiry of the licence the new occupier shall within 15 days of the transfer, apply in **Form XVII** to the <sup>1</sup>[Inspector of Factories of the area concerned] for transfer of licence in his name:

Provided that in any case of death or insolvency of an occupier, the person succeeding or taking over the factory and functioning as the occupier shall apply for transfer and for amendment of the licence for the remaining period as soon as practicable, but in no case later than one month after the death or taking over:

[Provided further that no such transfer of a licence will be made by the Inspector without obtaining prior approval of the Chief Inspector.]

(ii) The application for transfer shall be accompanied by a letter from the previous occupier or some other documentary evidence which may prove that the occupation of the factory has been transferred to the applicant.

(iii) “The fee for transfer of licence shall be five hundred rupees and shall be payable by the new occupier applying for transfer of licence under sub-rule (1).”

(iv) Every such application for the transfer of a licence will be approved within 30 days forwarded by the Inspector of Factories concerned to the Chief Inspector for approval before the licence is amended.

(9) **Payment of fees;** (i) Every application under these rules shall be accompanied with appropriate fees deposited thorough online mode.

(ii) If an application for the grant, amendment or transfer of licence is rejected, the fee paid shall be non-refundable to the applicant.

(10) **Prohibition of use of premises as factory without a valid licence.-** An occupier shall not use any premises as a factory or carry on any manufacturing process in a factory unless a licence has been issued in respect of such premises.

(11) It shall be the duty of the occupier to submit to the Inspector of Factories, of the area concerned, an application electronically as the authority so decides for registration and grant of licence or for renewal of licence or for transfer or amendment of the licence, as may be necessary, within the time prescribed in the foregoing rules.

**12. Notice of change of manager.-** The notice of change of manager shall be electronically submitted in **Form-XVIII** on the department's web portal

**13. Revocation or suspension of license :** Any registration / license obtained by providing wrong information, by mis-representation or suppression of any material fact or if the Occupier has failed to comply with the conditions subject to which license was granted or the occupier has contravened any provision of the of the Code or rules made there under shall be liable to be cancelled provided that occupier has been given an opportunity to show cause, electronically or by registered post, as to why the certificate of registration should not be cancelled.

(1) On receipt of the reply if any, from the occupier within 15 days, the Chief Inspector-cum-Facilitator shall examine the same and in case it appears that the continuation of manufacturing Process in the factory is going to lead to grave harm to the workers, he may pass a written Order, reasons for revocation or suspension or otherwise and communicate to the occupier electronically.

(2) If the Occupier has complied with the said provisions of the code and rules made there under within the stipulated time period, the same may be reinstated.

**14. Appeal against revocation or suspension of License:-** (i) The appellate authority against revocation or suspension of License shall be the State Government. The Occupier aggrieved by the order of Chief Inspector-cum-Facilitator of Factories, may appeal against such order before the State Government for such purpose within thirty days from the date of receipt by him of such order, electronically. The State Government's decision in the matter will be final.

(ii) **Reinstatement of License:-** In case of cancellation, revocation or suspension of license, the applicant may apply for reinstate of license electronically.

## **15. GUIDELINES, INSTRUCTIONS AND RECORDS**

(i) Without prejudice to the general responsibility of the occupier to comply with the provisions of Section 6 or Section 85, the Chief Inspector-cum-Facilitator or Inspector-cum-Facilitator declared under the code may, from time to time, issue guidelines and instructions regarding the

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

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

**16 Mode of submission of application under sub-section (2) of section 79;** An application for permission shall be accompanied with plans and specifications required by the rules shall be sent to the Chief Inspector-cum-Facilitator in the electronic mode and if no order / objection is communicated to the applicant within such period not exceeding thirty days, the permission applied for in the said application shall be deemed to have been granted.

**17. Common facilities and services for joint liability of owner of premises and occupiers of the factories under section 80;**- (i) Common facilities in joint liability of owner of premises and occupiers of the factories shall include safety, fire prevention and protection, access, hygiene, occupational health, ventilation, temperature, emergency preparedness and response, canteens, shelter, rest rooms and crèches.

(ii) Other services provided by **owner of premises and occupiers of the factories** in joint liability may be notified by the State Government from time to time.

**18. Rules under section 82 for Dangerous manufacturing processes or operations.**- (i) The following manufacturing processes or operations when carried on in any factory are declared to be dangerous manufacturing processes or operations under section 82: -

(I) Manufacture of aerated water and processes incidental thereto

(II) Electrolytic plating or Oxidation of metal articles by use of an electrolyte containing chromic acid of other chromium compounds.

(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) Highly flammable liquids and flammable compressed gases.

(IX) Liming and tanning of raw hides and skins and processes incidental thereto.

(X) Lead Process carried in Printing Press and Types Foundries.

(XI) Chemical Works.

(XII) Manufacture of Pottery.

(XIII) Compression of Oxygen and Hydrogen by the Electrolysis of Water.

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

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

(XVI) Handling and manipulation of corrosive substances.

(XVII) Manufacture of articles from refractory materials.

(XVIII) Solvent Extractions Plants.

(XIX) Carbon Di-sulphide plants.

(XX) Manufacture or Manipulation of Manganese and its compounds.

- (XXI) Applicable to factories in which Benzene or substances containing Benzene are manufactured, handled or used.
- (XXII) Manufacture of Slate Pencils.
- (XXIII) Manufacture or manipulation of dangerous pesticides.
- (XXIV) Manufacture or manipulation of carcinogenic dye intermediates.
- (XXV) Operations involving high noise levels and vibration levels
- (XXVI) Manufacture Rayon by viscose process.
- (XXVII) Operations in Foundries.
- (XXVIII) Manipulation of stone or any other material containing free silica
- (XXIX) Textile Machinery Except Machinery Used In Jute Mills.
- (XXX) Cotton Ginning.
- (XXXI) Operation involving Lifting machines, chains, ropes and lifting tackles and working on fragile roofs
- (XXXII) Wood-Working Machinery
- (XXXIII) Power Presses & Pressure Plant
- (XXXIV) Rubber Mills Including Tyre Retreading
- (XXXV) Jute Textiles
- (XXXVI) Process which involve risk of injury to the eyes
- (ii) The provisions specified in the **Schedule III** shall apply to any class or description of factories wherein dangerous manufacturing processes or operations specified in each schedule are carried on.
- (iii)(a) For the medical examination of workers to be carried out by the **Qualified Medical Practitioner** as required by the **Schedule III** annexed to this rule and fees for medical examination shall be paid by the occupier.
- (b) Before employment of a person in dangerous operation a person shall be medically examined and thereafter he shall be examined half yearly by a qualified medical practitioner
- (iv) Notwithstanding the provision specified in the **Schedule III** annexed to this Rule, the Inspector may issue order in writing to the manager 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 and safety of workplace, or to suspend any process, where such process constitutes, in the opinion of the Inspector, imminent danger of poisoning or toxicity.
- (V) Any register or record of medical examinations and tests connected therewith required to be carried out under the **Schedule III** annexed hereto in respect of any worker shall be kept readily available to the Inspector-Cum-Facilitator and shall be preserved till the expiry of one year after the worker ceases to be in employment of the factory.

### **SCHEDULE- III**

#### **Sub-Schedule-1**

#### **Manufacture of Aerated Waters and Processes incidental thereof.**

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 this factory.

2. *Face-guards and gauntlets.*-(1) The occupier shall provide and maintain of condition for the use of all persons engaged in filling bottles or syphons –

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

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

Provided that –

(i) paragraph 2(1) shall not apply where bottles are filled by means of an automatic machine so constructed that no fragment of a bursting bottle can escape, and

(ii) where a machine is so constructed that only one arm of the bottler at work upon it is exposed to danger, a gauntlet need not be provided for the arm which is not exposed to danger.

(2) The occupier shall provide and maintain in good condition for the use of all persons engaged in corking, crowning, screwing, wiring, foiling, capsuling, sighting or labelling bottles or syphons –

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

(b) suitable gauntlets for both arms to protect and arm and at least half of the palm and the space between the thumb and forefinger.

3. *Wearing of face-guards and gauntlets.*-All persons engaged in any of the processes specified in paragraph 2 shall, while at work in such processes wear the face-guards and gauntlets provided under the provisions of the said paragraph.

**4. Medical Examination by the medical officer** - (1) Every worker employed in the processes this schedule applies to, shall be examined by a medical officer. He shall issue fitness on **Form XIX**.

(1) If at any time the medical officer is of the opinion that a worker is no longer fit for employment in the Aerated Waters processes on the ground, that continuance therein would involve danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the said processes. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the medical officer, in that case the person affected shall be suitably rehabilitated.

(2) No person who has been found unfit to work 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.

(3) Fitness and health register shall be maintained and shall be kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

#### Sub-Schedule-2

**Electrolytic Plating for Oxidation of Metal Articles by use of an Electrolyte Containing Chromic Acid or Other Chromium Compounds.**

1. *Definitions.*-For the purposes of this schedule: -

(a) "Electrolytic chromium process" means the electrolytic plating or

oxidation of metal articles by the use of an electrolyte containing chromic acid or other chromium compounds.

(b) "Bath" means any vessel used for an electrolytic chromium process or for any subsequent process.

(c) "Employed" means in paragraphs 5, 7, 8 and 9 of this Schedule, employed in any process involving contact with liquid from a bath.

(d) "Suspension" means suspension from employment in any process involving contact with liquid from any bath by written certificate in the Health Register, signed by the Certifying Surgeon, who shall have power of suspension as regards all persons employed in any such process.

2. *Exhaust draught.*-An efficient exhaust draught shall be applied to every vessel in which all electrolytic chromium process is earned 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. *Prohibitions 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 room containing a bath shall be impervious to water. The floor shall be maintained in good and level condition and shall be washed down at least once a day.

5. *Protective clothing.*-(1) The occupier of the factory shall provide and maintain in good and clean condition the following articles of protective clothing for the use of all persons employed on any process at which they are liable to come in contact with liquid from a bath and such clothing shall be worn by the persons concerned: -

(a) waterproof aprons and bibs, and

(b) for persons actually working at a bath, lose-fitting rubber gloves and rubber boots or other waterproof foot-wear.

(2) The occupier shall provide and maintain for the use of all persons employed suitable accommodation for the storage and adequate arrangements for the drying of the protective clothing.

6. *Medical requisites.*-The occupier shall provide and maintain a sufficient supply of suitable ointment and impermeable water-proof plaster in a separate box readily accessible to the workers and used solely for the purpose of keeping the ointment and plaster.

7. *Medical Examinations.*-(a) Every person employed in the process shall be examined by a Medical Officer of the Factory at least twice in every week, and by the certifying surgeon at least once in every three months. -

(b) In a factory in which whole time Medical Officer is not employed, the weekly examinations may be carried out by any qualified medical practitioner, or by a responsible person especially trained for this purpose and certified by the certifying surgeon or by the Medical Inspector of Factories, to be competent to carry out this examination.

(c) A register containing the names of all persons employed in the process shall be kept in **Form no. XX** and the result of all examinations, whether weekly or otherwise, shall be duly entered in the said register by the person carrying out the examination and shall be duly signed by him. The said register shall be produced before and examined by the certifying surgeons at every visit or at least once in every three months.

(d) It shall be the duty of the Manager and the occupier to arrange for the medical and other examinations as prescribed in this clause and to produce all persons required to be examined at the place and time appointed for the said purpose and every person employed in the process shall whenever required himself at the appointed time and place.

(e) No person after suspension shall be employed in the process without the written permission of the certifying surgeon duly entered in the register in **Form no. XX**.

The suspended person may be employed during the period of suspension on such other job as may be advised or recommended by the certifying surgeon.

8. *Cautionary placard.*-a cautionary placard in the form specified by the Chief Inspector and printed in the language of the majority of the workers employed shall be affixed in a prominent place in the factory where it can be easily not conveniently read by the workers.

9. *Weekly examination.* - A responsible person appointed in writing by occupier of the factory shall twice in every week inspect the hands and forearms of all persons employed and shall keep a record of such inspections in the Health Register.

### **Sub-Schedule-3**

#### **Manufacture and Repair of Electric Accumulators**

1. *Saving.* - This Schedule shall not apply to the manufacture or repair of electric accumulators or parts thereof not containing lead or any compound of lead; or to the repair on the premises, of any accumulator forming part of a stationary battery.

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

(a) "Lead process" means the melting of lead or any material containing lead, casting, pasting, lead burning, or any other work, including trimming, or any other abrading or cutting of posted 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.

(c) "Suspension" means suspension from employment in any lead process by written certificates in the Health Register **Form no. XX** signed by the Certifying Surgeon, who shall have power of suspension as regards all persons employed in any such process.

3. *Prohibition relating to women and young persons.* -No women or young person shall be employed or permitted to work in any led process or in any room in which the manipulation of raw oxide of lead or pasting is earned 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 therewith;
- (e) Melting down of pasted plates.

5. *Air space.* - In every room in which a lead process is carried on, there shall be at least 500 cubic feet of air space for each person employed therein, and in computing this air space no height over 12 feet shall be taken into account.

6. *Ventilation.* -Every work-room shall be provided with inlets and outlets of adequate size as to secure and maintain efficient ventilation in all parts of the room.

7. *Distance between workers in pasting room.* - In every pasting room the distance between the centre of the working position of any paster and that of the paster working nearest to him shall not be less than five feet.

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

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

(2) In all such rooms other than grid casting shop the floor shall be cleansed daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room.

(3) In grid casting shops the floor shall be cleansed daily.

Without prejudice to the requirements of sub-paragraphs (1), (2) and (3), where manipulation of raw oxide of lead or pasting is carried on, the floor shall also be –

- (a) kept constantly moist while work is being done;
- (b) provided with suitable and adequate arrangements for drainage;
- (c) thoroughly washed daily by means of a hose pipe.

9. *Work benches.* -The work-benches at which any lead process is carried on shall -

- (a) have a smooth surface and be maintained in sound condition;

(b) be kept free from all materials or plant not required for or produced in, the process carried on thereat;

and all such work-benches other than those in grid casting shop shall -

(c) be cleansed daily either after being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on thereat;

and all such work benches in grid casting shops, shall -

(d) be cleansed daily;

and every work-bench used for pasting shall -

(e) be covered throughout with sheet lead or other impervious material;

(f) be provided with raised edges;

(g) be kept constantly mist while pasting is being carried on

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

(a) Melting of lead or materials containing lead;

(b) Manipulation of raw oxide of lead, unless down in an enclosed apparatus so as to prevent the escape of dust into the workroom;

(c) pasting;

(d) Trimming, brushing, filing or any other abrading or cutting of pasted plates giving rise to dust;

(e) Lead burning, other than -

(i) "tacking" in the formation room;

(ii) chemical burning for the making of lead linings for cell cases necessarily carried on in such a manner that the application of efficient exhaust is impracticable.

Such exhaust draught shall be effected by mechanical means and shall operate on the dust or fume given off as nearly as may be at its point of origin, so as to prevent it entering the air of any room in which persons work.

11. *Fumes and gases from melting pots.*-The products of combustion produced in the heating of any melting pot shall not be allowed to escape in to a room -in which persons work.

12. *Container for dross.* - A suitable receptacle with tightly fitting cover shall be provided and used for dross at it is removed from every melting pot. Such receptacle shall be kept covered while in the work-room, except when dross is being deposited therein.

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

14. *Racks and Shelves in drying room.*-The racks or shelves provided in any drying room shall not be more than 8 feet from the floor not more than 2 feet in width, provided that as regards racks or shelves set or drawn from both sides the total width shall not exceed 4 feet.

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

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

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

(b) A Health Register in **Form no. XX** containing the names of all persons employed in lead process shall be kept.

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

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

- (a) manipulation of raw oxide of lead;
- (b) pasting;
- (c) the formation room;

and such clothing shall be worn by the persons concerned . The protective clothing shall consist of a waterproof apron and waterproof foot-wear; and, also, as regards persons employed in the manipulation of raw oxide of lead or in pasting, head coverings. The head coverings shall be washed daily.

17. *Mess-room*.-There shall be provided and maintained for the use of all persons employed in a lead process and remaining on the premises during the meal intervals, a suitable mess-room, which shall be furnished with (a) sufficient tables and benches and (b) adequate means for warming food.

The mess-room shall be placed under the charge of a responsible person, and shall be kept clean.

18. *Cloak-room*.-There shall be provided and maintained for the use of all persons employed in 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 separate from any mess-room.
- (b) separate and suitable arrangements for the storage of protective clothing provided under paragraph 16.

19. *Washing facilities*.-There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in a lead process: -

(a) A wash place under cover, with either: -

(i) a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow of at least two feet for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than two feet; or

(ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water laid on;

(iii) a sufficient supply of clean towels made of suitable materials renewed daily, which supply, in the case of pasters and persons employed in the manipulation of raw oxide of lead, shall include a separate marked towel for each such worker; and

(iv) a sufficient supply of soap or other suitable cleansing material and of nail brushes.

(b) There shall in addition be provided means of washing in close proximity to the rooms in which manipulation of raw oxide of lead or pasting is carried on if required by notice in writing from the Chief Inspector.

20. *Time to be allowed for washing.*-Before each meal and before the end of 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 two feet of trough for each such person this rule shall not apply.

21. *Facilities for bathing.*-Sufficient bath accommodation to the satisfaction of the Chief Inspector shall be provided for all persons engaged in the manipulation of raw oxide of lead or in pasting, and a sufficient supply of soap and clean towels.

22. *Foods, drinks, etc., prohibited in work-rooms.*-No food, drink, 'pan' and "supari" or tobacco shall be consumed or brought by any worker into any work room in which any lead process is carried on.

#### **Sub-Schedule-4** **Glass Manufacture**

1. *Exemption.*- If the Chief Inspector is satisfied in respect of any factory or any class of process, that, owing to the special 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 impracticable, he may by certificate in writing authorise such suspension or relaxation as may be indicated in the certificate for such period and on such conditions as he may think fit.

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

*(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 per cent of the dry weight of the portion taken for analysis.

The method of treatment shall be as follows: -

A weight quantity of the material which has been dried at 100° and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 per cent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphite.

*(c)* "Suspension" means suspension from employment in any process specified in paragraph 3 by written certificate in the Health Register **Form no. XX** signed by the Certifying Surgeon who shall have power of suspension as regards all persons employed in any such process.

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

*(a)* The mixing of raw materials to form a "batch".

*(b)* The dry grinding, glazing and polishing of glass or any article of glass.

*(c)* All processes in which hydrofluoric acid, fumes or ammoniacal vapours are given off.

*(d)* All processes in making of furnace moulds or "pots" including the grinding or crushing of used "pots".

*(e)* All processes involving the use of a dry lead compound.

4. *Prohibition relating to women and young persons.*-No woman or young person shall be employed or permitted to work in any of the operations specified in paragraph 3 or at any place where such operations are carried on.

5. *Floors and work-benches.*-The floor and work benches of every room in which a dry compound of lead is manipulated or in which any process is carried on giving of silica dust shall be kept moist and shall comply with the following requirements: -

The floors shall be –

- (a) of cement or similar material so as to be smooth and impervious to water;
- (b) maintained in sound condition; and
- (c) cleansed daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room.

The work-benches shall –

- (a) have a smooth surface and be maintained in sound condition, and
- (b) be cleansed daily either after being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on thereat.

6. *Use of hydrofluoric acid.* - The following provisions shall apply to rooms in which glass is treated with hydrofluoric acid: -

- (a) There shall be inlets and outlets of adequate size so as to secure and maintain efficient ventilation in all parts of the room;
- (b) The floor shall be covered with gutapercha and be light and shall slope gently down to a covered drain;
- (c) The workplaces shall be so enclosed in projecting hoods that openings required for bringing in the objects to be treated shall be as small as practicable; and
- (d) The efficient exhaust draught shall be so contrived that the gases are exhausted downwards.

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

8. *Blow-pipe.* – Every glass blower shall be provided with a separate blow-pipe bearing the distinguish mark of the person to whom it is issued and suitable facilities shall be readily available to every glass blower for sterilising his blow-pipe.

9. *Food, drinks, etc., prohibited in work rooms.* – No food, drink ‘pan’ and ‘supari’ or tobacco shall be brought into or consumed by any worker in any room or work place wherein any process specified in paragraph 3 is carried on.

10. *Protective Clothing.* – The occupier shall provide, maintain in a good repair and keep in a clean condition for the use of all persons employed in the processes specified in paragraph 3 suitable protective clothing, foot-wear and goggles according to the nature of the work and such clothing, foot-wear, etc., shall be worn by the persons concerned.

11. *Washing facilities.* – There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in the processes specified in paragraph 3: -

(a) a wash place with either -

- (i) a trough with a smooth impervious surface fitted with a waste pipe, without plug and of sufficient length to allow of at least two feet for every five such persons employed at any one time and having a constant supply of water from taps or jets above the trough at intervals of not more than 2 feet; or
- (ii) at least one wash basin for every five such person employed at any one time, fitted with a waste pipe and plug and having an adequate supply of water lard on or always readily available; and

(b) a sufficient supply of clean towels made of suitable material renewed daily with a sufficient supply of soap or other suitable cleansing material and of nail brushes; and

(c) a sufficient number of stand pipes with stairs-The number and location of such stand pipes shall be to the satisfaction of the Chief Inspector.

12. *Medical Examination.*-(a) Every person employed in any process specified in paragraph 3 shall be examined by the Certifying Surgeon within seven days preceding or following, the date of his first employment in such process and thereafter shall be examined by the Certifying Surgeon once in every calendar month or at such other intervals as may be specified in writing by the Chief Inspector on a day of which due notice shall be given to all concerned.

(b) A Health Register in **Form no. XX** containing the names of all persons employed in any process specified in paragraph 3 shall be kept.

(c) No person after suspension shall be employed in and process specified in paragraph 3 without written sanction from the Certifying Surgeon entered in or attached to the Health Register.

### **Sub-Schedule-5**

#### **Grinding or Glazing of Metals and Processes Incidental thereto**

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

(a) "Grindstone" means a grindstone composed of natural or manufactured sandstone but does not include a metal wheel or cylinder into which blocks of natural or manufactured sand stones are fitted.

(b) "Abrasive wheel" means a wheel manufactured of bonded emery or similar abrasive.

(c) "Grinding" means the abrasion, by aid of mechanical power, of metal, by means of a grindstone or abrasive wheel.

(d) "Glazing" means the abrading, polishing or finishing, by aid of mechanical power, of metal, by means of any wheel, buff, mop or similar appliance to which any abrading or polishing substance is attached or applied.

(e) "Racing" means the turning up cutting or dressing of a revolving grindstone before it is brought into use for the first time.

(f) "Hacking" means the chipping of the surface of a grindstone by hack of similar tool.

(g) "Rodding" means the dressing of the surface of a revolving grindstone by the application of a rod, bar or stip of metal to such surface.

6. *Exceptions.*-(1) Nothing in this Schedule shall apply to any factory in which only repair are carried on except any part thereof in which one or more persons are wholly or mainly employed in the grinding or glazing of metals.

(2) Nothing in this Schedule except paragraph 4 shall apply to any grinding or glazing of metals carried on intermittently and at which no person is employed for more than 12 hours in any week.

(3) The Chief Inspector cum Facilitator may, by certificate in writing, subject to such conditions as he may specify therein, relax or suspend any of the provisions of this Schedule in respect of any factory of owing to the special methods of work or otherwise such relaxation or suspension is practicable without danger to the health or safety of the persons employed.

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

(a) a hood or other appliance so constructed, arranged, placed and maintained as substantially to intercept the dust thrown off; and

(b) a dust of adequate size, air tight and so arranged as to be capable of carrying away the dust, which dust shall be kept free from obstruction and shall be provided with proper means of access for

inspection and cleaning, and where practicable, with a connection at the end remote from the fan to enable the Inspector to attach thereto any instrument necessary for ascertaining the pressure of air in the said duct; and

(c) a fan or other efficient means of producing a draught sufficient to extract the dust:

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

4. *Restriction on employment on grinding operations.*-Not more than one person shall at any time perform the actual processes of grinding or glazing

upon a grindstone, abrasive wheel or glazing appliance:

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

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

6. *Hacking and rodding.*-Hacking or rodding shall not be done unless during the process either (a) an adequate supply of water is laid on at the upper surface of the grindstone or (b) adequate appliance for the interception of dust are provided in accordance with the requirements of paragraph 3.

7. *Examination of dust equipment.*-(a) All equipments for the extraction or suppression of dust shall at least once in every six months be examined and tested by a competent person, and any defect disclosed by such examination and test shall be rectified as soon as practicable.

(b) A register containing particulars of such examination and test shall be kept in a form approved by the Chief Inspector.

**8. Medical facilities and examination by the medical officer** - (1)The occupier of every factory in which glazing of metal and processes are carried on shall-

(a) make arrangements of a qualified medical practitioner for medical surveillance of the workers employed therein; and

(b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause(a).

(2)Every worker employed in the Grinding or Glazing of Metal and Processes incidental thereto shall be examined by a medical officer. He shall issue fitness on **Form XIX** .

(3) If at any time, the medical officer is of the opinion that a worker is no longer fit for employment in the Grinding or Glazing processes on the ground, that continuance therein would involve danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the said process. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the medical officer, in that case the person affected shall be suitably rehabilitated.

(4) No person who has been found unfit to work as said in sub-paragraph (6) 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.

(5) The record of the examinations shall be maintained and kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

**Sub-Schedule-6****Manufacture and Treatment of Lead and Certain Compounds of Lead.**

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

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

(a) "Lead Compound" means any compound of lead other than galena which when treated in the manner described below, yield to an aqueous solution of hydrochloric acid and, a quantity of soluble lead compound exceeding, when calculated as lead monoxide, five per cent of the dry weight of the portion taken for analysis, in the case of paints and similar products and other mixtures containing oil or fat the "dry weight" means the dry weight of the material remaining after the substance has been thoroughly mixed and treated with suitable solvents to remove, oil facts, varnish or other media.

The method of treatment shall be as follows: -

A weighed quantity of the material which has been dried at 100°C and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 per cent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate.

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

3. *Application.*- This Schedule shall apply to all factories or parts of factories in which any of the following operations are carried on: -

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

4. *Prohibition relating to women and young persons.*-No woman or young person shall be employed or permitted to work in any of the operation specified in paragraph 3.

5. *Requirements to be observed.*-No person shall be employed or permitted to work in any process involving the use of lead 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 6 to 14 are complied with.

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

7. *Certificate of fitness.*-A person medically examined under paragraph 8 and found fit for employment shall be granted by a Certifying Surgeon a certificate of fitness in **Form XXI** and such certificate shall be in the custody of the Manager of the Factory. The certificate shall be kept readily

available for inspection by any Inspector and the person granted such a certificate shall carry with him; while at a work a token giving reference to such certificate.

8. *Medical Examination.*-(1) The person so employed shall be medically examined by a Certifying Surgeon within 14 days of his first employment in such process and thereafter shall be examined by the Certifying Surgeon at intervals of not more than three months, and a record of such examination shall be entered by the Certifying Surgeon on the special certificate of fitness granted under paragraph 7.

(2) If at any time the Certifying Surgeon is of opinion that any person is no longer fit for employment on the grounds that continuance therein would involve special danger to health, he shall cancel the special certificate of fitness of that person.

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

9. *Food, drinks, etc., prohibited in work-rooms.* – No food, drink, ‘pan’ and ‘supari’ or tobacco shall be brought into or consumed by any worker in any workroom in which the process is carried on and no person shall remain in any such room during intervals for meals or rest.

10. *Protective clothing.* – Suitable protective overalls and head coverings shall be provided, maintained and kept clean by the factory occupier and such overalls and head coverings shall be worn by the person employed.

11. *Cleanliness of work-rooms, tools, etc.* – The rooms in which the persons are employed and all tools and apparatus used by them shall be kept in a clean state.

12. *Washing facilities.* – (1) The occupier shall provide and maintain for the use of all persons employed suitable washing facilities consisting of –

(a) a trough with a smooth impervious surface fitted with a waste pipe without plug and of sufficient length to allow at least two feet for every ten persons employed at any one time, and having a constant supply of clean water from taps or jets above the trough at intervals of not more than two feet; or

(b) at least one wash-basin for every ten persons employed at any one time, fitted within a waste pipe and plug and having a constant supply of clean water;

Together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material or clean towels.

(2) The facilities so provided shall be placed under the charge of a responsible person and shall be kept clean.

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

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

### **Generating Petrol Gas from Petrol**

1. *Prohibition relating to women and young person.* – No woman or young person shall be employed or permitted to work in or shall be allowed to enter any building in which the generating of petrol gas from petrol is carried on.
2. *Flame traps.*– The plant or generating of petrol gas from petrol 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 generating petrol gas from petrol erected after the coming into force of the provisions specified in this Schedule, shall be erected outside the factory building proper in a separate well ventilated building (hereinafter referred to as the “generating building”). In the case of such plant erected before the coming into force of the provisions specified in this Schedule there shall be no direct communication between the rooms where such plants are erected (hereinafter referred to as “the generating room”) and the remainder of the factory building. So far as practicable, all such generating rooms shall be constructed of the fire resisting materials.
4. *Fire extinguishers.*–An efficient means of extinguishing petrol fires shall be maintained in an easily accessible position near the plant for generating petrol gas from petrol.
5. *Plant to be approved by Chief Inspector.*– Petrol gas shall not be manufactured except in a plant for generating petrol gas the design and construction of which has been approved by the Chief Inspector.
6. *Escape of petrol.*–Effective steps shall be taken to prevent petrol from escaping into any drain or sewer.
7. *Prohibition relating to smoking.*–No person shall smoke or carry matches, fire or naked light or other means of producing a naked light or spark in the generating room or building or in the vicinity thereof and a warning notice in the language understood by the majority of the workers shall be posted in the factory prohibiting smoking and the carrying of matches, fire or naked light or other means of producing and 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 unauthorised person shall have access to any petrol or to a vessel containing or having actually contained petrol.
9. *Electric fittings.*–All electric fittings shall be of flame proof construction and all electrical conductors shall either be enclosed in metal conduits or be lead sheathed.
10. *Construction of doors.*–All doors in the generating room or building shall be constructed to open outwards or to slide and no door shall be locked or obstructed or fastened in such a manner that it cannot be easily and immediately opened from the inside while gas is being generated and any person is working in the generating room or building.
11. *Repair of containers.*–No vessel that has contained petrol shall be repaired in a generating room or building and no repairs to any such vessel shall be undertaken unless live steam has been blown into the vessel and until the interior is thoroughly steamed out or other equally effective steps have been taken to ensure that it has been rendered free from petrol or inflammable vapour.
12. Unless there be anything repugnant in the subject or context, the word 'petrol' wherever used in this Schedule includes 'dangerous petroleum' as defined in the Petroleum Act, 1934.
13. The Chief Inspector may, with the previous approval of the State Government, exempt any factory or plant from any of the provisions of this Schedule subject to such conditions as may be specified in writing by the Chief Inspector. The exemption granted may, with the like approval, be revoked at any time.

**14. Medical examination by the medical officer** - (1) Every worker employed in generating petrol gas from petrol processes shall be examined by a medical officer. He shall issue fitness on **Form XIX**.

(1) If at any time the medical officer is of the opinion that a worker is no longer fit for employment in the processes on the ground that continuance therein would involve danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register on **Form XX**. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the said processes. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the medical officer, in that case the person affected shall be suitably rehabilitated.

(2) No person who has been found unfit to work 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.

(3) The record of the examinations shall be maintained and kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

### **Sub-Schedule-8**

#### **High Flammable Liquids and Flammable Compressed Gases**

**1. Application.** - This schedule shall apply to all factories where high flammable liquids or flammable compressed gases are manufactured, stored, handled or used.

**2. Definition.** - For the purpose of this Schedule-

(a) "highly flammable liquid" means the liquid including its solution, a emulsion or suspension which when tested in a manner specified by Sections 14 and 15 of the Petroleum Act, 1934 gives off flammable vapour at a temperature less than 32 degree celsius;

(b) "Flammable compressed gas" means flammable compressed gas defined in Rule 2 of the Static and Mobile Pressure Vessels (Unfired) Rules, 1981 framed under the Explosives Act, 1948 (No. IV of 1948).

**3. Storage.** - (1) Every flammable liquid or flammable compressed gas used in every factory shall be stored in suitable fixed storage tank, or in suitable closed vessel located in a safe position under the ground, in the open or in a store room of adequate fire resistant construction.

(2) Except as necessary for use, operation or maintenance every vessel or tank which contains or had contained a highly flammable liquid or flammable compressed gas shall be always kept closed and all reasonably practicable steps shall be taken to contain or immediately drain off to a suitable container any spill or leak that may occur.

(3) Every container, vessel, tank, cylinder or store room used for storing highly flammable liquid or flammable compressed gas shall be clearly and in bold letters marked "Danger-Highly Flammable Liquid" or "Danger-Flammable Compressed Gas."

**4. Enclosed systems for Conveying Highly Flammable Liquids.** - Where it is reasonably practicable, highly flammable liquids shall be conveyed within a factory in totally enclosed systems consisting of pipe lines, pumps and similar appliances from the storage tank or vessels to the point of use. Such enclosed systems shall be so designed installed, operated and maintained as to avoid leakage or the risk of spilling.

**5. Preventing Formation of Flammable Mixture with Air.** - Where there is possibility for leakage or spill of highly flammable liquid or flammable compressed gas from an equipment, pipe line, valve

joint or other part of a system, all practicable measures shall be taken to contain, drain off or dilute such spills or leakage as to prevent formation of flammable mixture with air.

**6. Prevention of Ignition.** - (1) In every room work place or other location where highly flammable liquid or flammable combustible is stored, conveyed, handled or used or where there is danger of fire of explosion from a accumulation of highly flammable liquid or flammable compressed gas in air all practicable measure shall be taken to exclude the sources of ignition. Such precautions shall include the following :-

- (a) all electrical apparatus shall either be excluded from the area of risk or they shall be of such construction and so installed and maintained as to prevent the danger of their being a source of ignition;
- (b) effective measures shall be adopted for prevention of accumulation of static charge to a dangerous extent;
- (c) no person shall wear or be allowed to wear any foot wear having iron or steel nails or any other exposed ferrous materials which is likely to cause sparks by friction;
- (d) smoking, lighting or carrying of matches, lighters or smoking materials shall be prohibited;
- (e) transmission belts with iron fasteners shall not be used;
- (f) all other precautions, as are reasonably practicable, shall be taken to prevent initiation of ignition from all other possible sources such as open flames, frictional sparks, overheated surfaces of machinery or plant, chemical or physical-chemical reaction and radiant, heat.

**7. Prohibition of smoking.** - No person shall smoke in any place where highly flammable liquid or flammable compressed gas is present in circumstances that smoking would give rise to a risk of fire. The occupier shall take all practicable measures to ensure compliance with this requirements including display of a bold notice indicating prohibition of smoking at every place where this requirement applies.

**8. Fire Fighting.** - In every factory where highly flammable liquid or flammable compressed gas is manufactured, stored, handled or used an appropriate and adequate means of fighting a fire shall be provided. The adequate and suitability of such means which expression includes the fixed and portable fire extinguishing systems, extinguishing materials, procedures and the process of fire fighting shall be to the standards and levels prescribed in the rules.

**9. Medical examination by the medical officer** - (1) Every worker employed in processes where high flammable liquids or flammable compressed gases are manufactured, stored, handled or used shall be examined by a medical officer. He shall issue fitness on **Form XIX**.

(1) If at any time the medical officer is of the opinion that a worker is no longer fit for employment in the processes on the ground, that continuance therein would involve danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register on **Form XX**. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the said processes. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the medical officer, in that case the person affected shall be suitably rehabilitated.

(2) No person who has been found unfit to work as said in sub-paragraph (6) 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.

(3) The record of the examinations shall be maintained and kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

**10. Exemptions.** - If in respect of any factory the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the

provisions of this schedule is not necessary for protection of the workers in the factory the Chief Inspector may by a certificate in writing, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

### **Sub-Schedule-9**

#### **Lining and Tanning of Raw Hides and Skins and Processes Incidental thereto.**

1. *Cautionary notices.*- (1) Cautionary notices as to anthrax in the form specified by the Chief Inspector shall be affixed in prominent position in the factory where they may easily and conveniently be read by the persons employed.

(2) A copy of warning notice as to anthrax in the form specified by the Chief Inspector shall be given to each person employed when he is engaged and subsequently if still employed, on the first day of each calendar year.

(3) Cautionary notices as to the effect of chrome on the skin shall be affixed in prominent position in every factory in which chrome solutions are used and such notices shall be so placed as to be easily and conveniently read by the persons employed.

(4) Notices shall be affixed in prominent places in the factory stating the position of "First Aid" box or cupboard and the name of the person in charge of such box or cupboard.

(5) If any person employed in the factory is illiterate, effective steps shall be taken to explain carefully to such illiterate person the contents of the notices specified in paragraphs 1, 2 and 4 and if chrome solutions are used in the factory, the contents of the notice specified in 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 rubber gloves for persons employed in processes involving contact with chrome solutions including the preparation of such solutions;

(b) protective footwear, aprons and gloves for persons employed in the handling of hides or skins other than in processes specified in clause (a):

Provided that gloves shall not be required for persons fleshing by hand or where there is no risk of contact with lime, sodium sulphide or other caustic liquor.

3. *Washing facilities, mess-room and cloak-room.*-There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed-

(a) a trough with a smooth impervious surface fitted with a wastepipe without plug, and of sufficient length to allow at least two feet for every ten persons employed at any one time and having a constant supply of water from taps or jets above the trough at intervals of not more than two feet; or

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

(c) a suitable mess-room adequate for the number remaining on the premises during the meal intervals, which shall be furnished with (1) sufficient tables and benches and (2) adequate means for warming food and for boiling water.

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

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

4. *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 workroom or shed in which hides or skins are stored, treated or manipulated.

5. *First aid arrangements.*-The occupier shall –

(a) arrange for an inspection of the hands of all persons coming into contact with chrome solution to be made twice a week by a responsible person;

(b) provide and maintain a sufficient supply of suitable ointment and impermeable waterproof plaster in a box readily accessible to the workers and used solely for the purpose of keeping the ointment and plaster.

### **Sub-Schedule-10**

#### **Printing Presses and Type Foundries- Certain Lead Progress Carried Therein**

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

2. *Definition.*- In these regulations.-

"Lead Material"-means material containing not less than 5 per cent of lead.

"Lead process" means. –

(a) the melting of lead or any lead material for casting and mechanical composing; and

(b) the re-charging of machines with used lead material or

(c) any other work including removal of dross from melting pots, cleaning of plungers;

(d) manipulation, movement or other treatment of lead material.

"Efficient exhaust draught" means localised ventilation effected by heat or mechanical means, for the removal of gas, vapour, fume or dust at the point where they originate.

3. "*Exhaust draught*".- None of the following processes shall be carried on except with the efficient exhaust draught: -

(a) melting lead material, or slugs;

(b) Heating and material, so that vapour containing lead is given off;

unless carried on in such a manner as to prevent free escape of gas, vapour, fume or dust into any place in which the work is carried on; or

Unless carried on in electrically heated and thermostatic controlled melting pots. Such exhaust draught shall be effected by mechanical means and as contrived as to operate on the dust, fume, gas or vapour given off as closely as may be at its point of origin.

4. *Prohibition relating to women and young persons.*-No woman or young persons shall be employed or permitted to work in any lead process.

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

(a) melting of lead or any lead material;

(b) casting of lead ingots;

(c) mechanical composing.

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

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

(a) of cement or of similar material so as to be smooth and impervious to water.

(b) maintained in sound condition; and

(c) cleaned throughout daily after being thoroughly damped with water at a time no other work is being carried on at the place.

8. *Mess-room*.—There shall be provided and maintained for the employees in a lead process and remaining on the premises during the meal intervals, a suitable mess-room, which shall be furnished with sufficient tables and benches.

9. *Washing facilities*.—There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in a lead process –

(a) (i) a trough with a smooth impervious surface, fitted with a water-pipe without plug, and of sufficient length to allow at least two feet for every five such persons employed at any one time and having a constant supply of water from taps or jets above the trough at intervals of not more than 2 feet; or

(ii) at least one wash-basin for every five such persons employed at any one time, fitted with a waste-pipe and plug and having an adequate supply of water laid on or always readily available; or

(b) a sufficient supply of clean towels made of suitable material, renewed daily with a sufficient supply of soap or other suitable cleansing material.

**10 Medical facilities and Examination** -(1) The occupier of every factory to which this schedule applies, shall-

(a) make arrangement a qualified medical practitioner for medical surveillance of the workers employed therein; and

(b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause(a).

(2) Every worker employed in a lead process shall be examined by a medical officer within 15 days of his first employment. Such examination shall include tests of lead in urine and blood. ALA in urine haemoglobin, stippling of cells and steadiness 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 medical officer.

(3) Every worker employed in the said processes shall be re-examined by a Medical officer at least once in every six calendar months. Such re-examination shall, wherever the Medical officer considers appropriate, include tests as specified in sub-paragraph (1)

(4) Every worker employed in lead processes carried in Printing Presses and type Foundries processes shall be examined by a medical officer. He shall issue fitness on form XXI.

(5) If at any time the medical officer is of the opinion that a worker is no longer fit for employment in the processes on the ground that continuance therein would involve danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register on **Form XX**. The entry of his findings in those documents shall also include the period for which he considers that the

said person is unfit for work in the said process. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the medical officer, in that case the person affected shall be suitably rehabilitated.

(6) No person who has been found unfit to work 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.

(7) The record of the examinations **Form XIX** and **Form XX**, shall be maintained and kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

11. *Food, drinks, etc., prohibited in work-room.*- No food, drink, 'pan' and 'suparai' or tobacco shall be consumed or brought by any worker into any workroom in which any lead process is carried on.

### **Sub-Schedule -11**

#### **PART I**

#### **Chemical Works**

1. *Application*- This schedule shall apply to all manufacture and processes incidental thereto carried on in chemical works.

2. *Definitions*.-In this Schedule, unless there is anything repugnant in the subject or context: -

(i) "Chemical works" means any factory or part of any factory in which any Chemical process is carried on;

(ii) "Chemical process" means manufacture, recovery, handling or storing of chemicals or any other process in which any chemical is used;

(iii) "Breathing apparatus" means a helmet or face-piece with necessary connections by means of which, a person using it in a poisonous, asphyxiating or irritant atmosphere breathes ordinary air, or any other suitable apparatus approved in writing by the Chief Inspector;

(iv) "Life belt" means a belt made of leather or other suitable materials 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, and the stresses caused due to the impact caused by the fall of a man;

(v) "Efficient exhaust draught" means localised ventilation effected by mechanical or other means, for the removal of gas, vapour, dust or fumes so as to prevent it from escaping into the air of any place in which work is carried on. No arrangement or device shall be deemed efficient which fails to remove effectively the gas, vapour dust or fumes generated at the point where it originates, and which permits the substance removed to escape into or re-enter the same or any other work place either directly or indirectly;

(vi) "Surgeon" means a Certifying Surgeon appointed under section 10 of the Factories Act, 1948.

(vii) "Suspension" means suspension by written certificate in the Health Register, signed by the Surgeon, from employment in any process mentioned in the certificate;

(viii) "Bleaching powder" means the bleaching powder commonly called chloride of lime.

(ix) "Chlorate" means chlorate or perchlorate;

- (x) "Caustic" means hydroxide of potassium or sodium;
- (xi) "Caustic pot" means a metal pot fixed over a furnace or flue used for concentrating or boiling caustic liquor or any other liquor;
- (xii) "Chrome process" means manufacture of chromate or bichromate or potassium, or sodium, or the manipulation, movement or other treatment of these substances in connection with their manufacture and use;
- (xiii) "Nitro or Amino process" means the manufacture of nitro or amino derivatives of phenol and of benzene or its homologues, and the making of explosive with the use of any of these substances.
- (xiv) "*the term 'permit to work' system*" means the compliance with the procedures laid down under para 20 of Part II;
- (xv) "*toxic substances*" means all those substances which when they enter into the human body, through inhalation or ingestion or absorption through skin, in sufficient quantities cause fatality or exert serious affliction of health or chronic harmful effects on the health of persons exposed to it due to its inherent chemical or biological effects. In respect of substances whose TLV exceeding the concentration specified therein in the rules would make the substance toxic;
- (xvi) "*emergency*" means a situation or condition leading to a circumstance or set of circumstances in which there is danger to the life or health of persons or which could result in big fire or explosion or pollution to the work and outside environment, affecting the workers or neighbourhood in a serious manner, demanding immediate action;
- (xvii) "*dangerous chemical reactions*" means high speed reactions, runaway 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.
- (xviii) "*manipulation*" means mixing, blending, filling, emptying, grinding sieving, drying, packing, sweeping, handling, using etc.
- (ix) "*approved personal protective equipment*" means items of personal protective equipment conforming to the relevant ISI specifications or in the absence of it, personal protective equipment approved by the Chief Inspector cum Facilitator;
- (xx) "*appropriate personal protective equipment*" means that when the protective equipment is used by the worker, he shall have no risk to his life or health or body; and
- (xxi) "*confined space*" means any space by reason of its construction as well as in relation to the nature of the work carried therein and hazards to the persons entering into or working inside exist or are likely to develop during working.

3. *Exception.*- If the Chief Inspector is satisfied in respect of any factory or any process that, owing to the special conditions or special methods of works, or for any other reason all or any of the requirements of this Schedule are not necessary for the protection of persons employed in any factory or process, he may by an order in writing exempt such factory or process from all or any of the provisions of this Schedule, subject to such conditions as he may by such order specify. He may in his discretion at any time revoke whole or part of such order.

4. *Register and records.*- All registers and records required to be maintained under this Schedule shall be maintained in the factory in a suitable form or in such form as may be prescribed or directed by the Chief Inspector and shall be produced before an Inspector, whenever required to do so.

## PART II

### General

5. The provisions of Part II of this Schedule shall apply to all chemical works specified in Appendix I attached to the Schedule.

6. *House keeping.*-(a) Every part of the ways, works, machinery and plant shall be maintained in a clean and tidy condition.

(b) Any spillage of materials shall be cleaned up without delay.

(c) Floors, platforms, stairways, passage and gangways shall be kept free from any obstruction whether permanent or temporary.

(d) There shall be provided easy means of access to all parts of the plant and adequate and proper implements to facilitate cleaning, maintenance and repair.

7. *Improper use of chemicals.*-(a) No chemical or solvent shall be used by any worker for any purpose other than the process for which it is supplied.

(b) Workers shall be instructed on the possible dangers arising from such misuse. These instructions shall further be displayed in bold letters in prominent places in the different sections of the works.

8. *Storage and use of food and testing of materials used in any chemical process.*-(a) No food, drink, tobacco, "pan" or "Supari" or similar article shall be stored or consumed on or near any place where any chemical process is carried on.

(b) Workers shall be instructed on the possible dangers arising from testing of any material used in chemical process or of the use for drinking purposes of any vessel or container used in, or in connection with any chemical process. These instructions shall further be displayed in bold letters prominent places in the different sections of the work.

9. *Process hazards.*-(a) Before commencing any experimental work pilot project, or any new chemical process, adequate steps shall be taken to ascertain definitely all the hazards involved, both in actual operation and in the chemical reactions. The properties of the raw materials used, the final products to be made, the middle products and any bye-products arising shall be carefully studied and adequate precautions shall be taken for dealing with any hazards including effects thereof on the workers. In the design and layout of the buildings and plants, adequate provisions shall be made to guard against any hazards.

(b) The Chief Inspector shall be informed in writing about the commencement of the operation of any pilot or experimental plant or process, and safety of persons exposed to the hazards likely to arise therefrom mentioned in sub-clause (a) shall be ensured, and where necessary advice shall be obtained from the Chief Inspector on measures to be taken in this regard.

10. *Unauthorised personnel.*-(a) Unauthorised persons shall not be permitted to enter any section of a chemical works where there is any special danger.

(b) Visitors shall be provided, where necessary, with suitable safety equipments and shall be accompanied round dangerous plants by a responsible person of the factory.

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

12. *Cocks and valves.*-Suitable and easily accessible valves shall be provided in all service lines at sufficiently short intervals for convenience in blanking off etc. All cocks and valves shall be operated

at least once in a month and tested periodically by a competent person, and records of these tests shall be kept in a register. A plan of all service installations shall be kept readily available.

13. *Man-holes*.- No man-holes shall be opened for entry until effective fencing has been erected round it.

14. *Emergency instructions*.- Special instructions in simple language shall be framed to ensure that effective measures may be carried out in cases of emergency, to deal with escape of inflammable poisonous or deleterious gases, vapours, liquids or dust. These instructions shall be further displayed in bold letters at prominent places in the different section of the works. All workers shall be trained and instructed in the action to be taken in such emergencies.

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

16. *Electrical apparatus*.-Electrical plant, fittings and conductors shall, if exposed to a damp or corrosive atmosphere, be adequately protected. Periodic tests shall be carried out on all electrical circuits to detect any defect or fault and any defect or fault detected shall be removed immediately.

17. *Place of work*.- (a) Workers shall be allowed only in those places in which they have been given orders to work.

(b) In dangerous sections of a factory the number of workers shall be kept to a minimum compatible with the process.

18. *Packing, storage and transport of chemicals*.- (a) Chemical shall be packed and stored in containers suitable for the purpose and of adequate strength for storage or transport. All such container shall be stored and transported in such a manner as to insure that, in the event of a spillage they will neither produce a reacting mixture, nor cause the development of toxic or fire risk in contact with other materials in its vicinity, or with walls, floors or dust therein.

(b) No corrosive chemical or substance shall be stored or transported except in containers of a suitable material upon which the corrosive substance may have no chemical action, of adequate strength and of suitable design and construction and no such container shall be transported, carried or moved from one place to other except in crates or receptacles of adequate strength and suitable design and construction.

(c) Crates or receptacles for containers with a capacity of 11 .5 litres (2.5 gallons) or more and containing any corrosive substance shall be transported or moved from one place to other on suitable rubber wheeled-trucks -or trolleys or any other device approved by the Inspector:

Provided that such containers, crates and receptacles may be carried manually by not less than two persons, at a height below the waist-line of the persons carrying and by means of a suitable and adequate device designed and constructed for the purpose.

(d) On every container containing any chemical substance a label shall be securely affixed and attached mentioning clearly and legibly in bold letters the name of chemical:

Provided that if there is any Indian standard of labeling of such containers the same shall be adopted.

(e) If in the opinion of an Inspector the system of storage and transport of any chemical is not safe, he may direct such system and devices to be used as he may consider safe and desirable.

**4. Cautionary Notice and Instructions.** - (1) Cautionary notices in a language understood by the majority of workers shall be prominently displayed in all hazardous areas as drawing the attention of all workers about the hazards to health, hazards involving fire and explosion and any other hazard such as consequences of testing of material or substances used in the process or using any contaminated container for drinking or eating, to which the workers' attention should be drawn for ensuring their safety and health.

(2) In addition to the above cautionary notice, arrangement shall be made to instruct and educate all the process including the specific hazards to which they may be exposed to, in the normal course of their work. Such instructions and education should also deal with the hazards involved in unauthorized and unsafe practices including the properties of substances used in the process under normal conditions as well as abnormal conditions and the precautions to be observed against each and every hazard. Further an undertaking from the workers shall be obtained within one month of their employment and for old workers employed, within one month of coming into operation of the rules, to the effect that they have read the contents of the cautionary notices and instructions, understood them and would abide by them. The training and instructions to all workers and all supervisory personnel shall include the significance of different types of symbols and colours used on the labels stuck or painted on the various types of containers and pipe lines.

**5. Evaluation and provision of safeguards before the commencement of process.** - (1) Before commencing any process or any experimental work, or any new manufacture covered under Appendix 'A', the occupier shall take all possible steps to ascertain definitely all the hazards involved both from the actual operations and the chemical reactions including the dangerous chemical reactions. The properties of raw materials, used the final products to be made, and any by-products derived during manufacturing, shall be carefully studied and provisions shall be made for dealing with any hazards including effects on workers, which may occur during manufacture.

(2) Information in writing giving details of the process, its hazards and the steps taken or proposed to be taken from the design stage to disposal stage for ensuring the safety as in sub-para (1) above should be sent to the Chief Inspector cum facilitator and the Industrial Hygiene laboratory of State Government at the earliest, but in no case less than 15 days before commencing manufacture, handling, or storage of any of item covered under Appendix 'A', whether on experimental basis, or as pilot plant or as trial production, or as large scale manufacture.

(3) The design, construction, installation, operation, maintenance and disposal of the buildings, plant and facilities shall take into consideration effective safeguards against all the safety and health hazards so evaluated.

(4) The requirements under the sub-para (1) to (3) shall not act in lieu of or in derogation to, any other provisions contained in any Act governing the work.

**6. Authorised entry.** - Authorised persons only shall be permitted to enter any section of the factory or plant where any dangerous operations or processes are being carried on or where dangerous chemical reactions are taking place or where hazardous chemicals are stored.

**7. Examination of instruments and safety devices.** - (1) All instruments and safety devices used in the process shall be tested before taking into use and after carrying out any repair to them examined once in a month by a competent person. Records of such tests and examinations shall be maintained in a register.

(2) All instruments and safety devices used in the process shall be operated daily or as often as it is necessary, to ensure its effective and efficient working at all times.

**8. Electrical installations.** - All electrical installations used in the process covered in Appendix 'A' shall be of an appropriate type to ensure safety against the hazard prevalent in that area such as suitability against dust, dampness, corrosion, flammability and explosivity etc. and shall conform to the relevant ISI specifications governing their construction and use for that area.

**9. Handling and storage of chemicals.** - (1) The containers for handling and storage of chemicals shall be 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 to the respective ISI standards. The instructions given in the label shall be strictly adhered to. Damaged containers shall be handled only under supervision of knowledgeable and responsible person and spillage shall be rendered innocuous in safe manner using appropriate means.

(2) The arrangements for the storage of chemicals including charging of chemicals in reactions 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 specific in Rule.

(3) Without prejudice to the generality of the requirements in sub-para (2) above, the arrangements shall have suitable ventilation facilities and shall enable the maintenance of safe levels in vessels and containers. Such arrangements shall also be taken into consideration, the type of flooring and the capacity of flooring and the compatibility requirements of substances with other chemicals stored nearby.

(4) (a) Storage of chemicals and intermediate product which are highly unstable or reactive or explosive shall be limited to the quantities required for two months use.

(b) Where the quantities laid down in the above clause (a) are to be exceeded, the permission of the Chief Inspector cum Facilitator shall be obtained.

(c) Notwithstanding anything contained in clauses (a) and (b) above, the Chief Inspector cum facilitator may direct any factory carrying out processes covered in Appendix 'A' to further limit the storage of hazardous substances to quantities less than two months on consideration of safety.

(5) Standby arrangements equal to the biggest container shall always be available to transfer the toxic substances quickly into the stand by storage facility if any defect develops in any of the container resulting in the release of toxic substances.

(6) Any storage facility constructed using non-metallic material such as Fibre glass Reinforced Plastics (FRP) all glass vessels etc., shall have adequate strength to withstand and stress, if any, exerted by the contents and shall be properly anchored, working platforms, access ladders, pine-lines etc. used in such storage facility shall not have any support on the structure of the storage facility and shall be independently supported.

**10. Facility for isolation.** - The plant and equipment shall be so constructed and maintained as to enable quick isolation of plant or part of plant or equipment, with appropriate indication. One copy of the layout plan indicating the isolation facilities shall always be available with the security personnel, the maintenance and the health and safety personnel and these isolating facilities shall be checked for its effectiveness once in a month.

**11. Personal protective equipment.** - (1) All workers exposed to the hazards in the processes covered by this Schedule shall be provided with appropriate and approved type of personal protective equipment. Such equipment shall be in a clean, and hygienic condition before issue.

(2) The occupier shall arrange to inform, educate and supervise all the workers in the use of personal protective equipment while carrying out the job.

(3) As regards any doubt regarding the appropriateness of any personal protective equipment, the decision of the Chief Inspector cum Facilitator will be final.

**12. Alarm systems.** - (1) Suitable and effective alarm systems giving audible and visible indications, shall be installed at the control room as well as in all strategic locations where process control arrangements are available so as to enable corrective action to be taken before the operational parameters exceed the predetermined safe levels or lead to conditions conducive for an outbreak of fire or explosion to occur. Such alarm systems shall be checked daily and tested every month at least once to ensure its performance efficiency at all times.

(2) The Chief Inspector cum Facilitator may direct such system to be installed in case of plants or processes where toxic materials are being used and spillage or leakage of which may cause wide spread poisoning in or around the plant.

**13. Control of escape of substances into the work atmosphere.** - (1) Effective arrangements such as, enclosure, or by pass, or efficient exhaust draught, maintenance of negative pressure etc., shall be provided in all plants, containers, vessels, sewers, drains, flues, ducts, culverts, and 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.

(2) In the event of the failure of the arrangements for control resulting in the escape of substances in the work atmosphere immediate steps shall be taken to control the process in such a manner, that further escape is brought down to the safe level.

(3) The substances that would have escaped into the work atmosphere before taking immediate steps as required in sub-para (2), shall be rendered innocuous by diluting with air or water or any other suitable agent or by suitable treating the substances.

**14. Control of dangerous chemical reactions.** - Suitable provisions, such as automatic and/or remote control arrangement shall be made for controlling the effects of dangerous chemical reactions. In the event of failure of control arrangement shall come into operation.

**15. Testing, examination and repair of plant and equipments.** - (1) All parts of plant, equipment and machinery used in the process which in the likely event of their failure may give rise to an emergent situation shall be tested by a competent person before commencing process and retested at an interval of two years or after carrying out repairs to it. The competent person shall identify the parts of the plant, equipment and machinery required to be tested as aforesaid and evolve a suitable testing procedures. In carrying out the test as mentioned above in respect of pressure vessels or reaction vessels the following precautions shall be observed, namely :-

(a) before the test is carried out, each vessel shall be thoroughly cleaned and examined externally, and as far as practicable, internally also for surface defects, corrosion and foreign matter. During the process of cleaning and removal of sludge, if any, all due precautions shall be taken against fire or explosion, if such sludge is of pyrophoric nature or contains spontaneously combustible chemicals;

(b) as soon as the test is completed, the vessel shall be thoroughly dried internally and shall be clearly stamped with the marks and figures indicting the person by whom testing has been done and the date of test; and

(c) any vessel which fails to pass the test of 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.

(2) 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.

(3) Records of testing and examination referred to in paragraphs (1) and (2) shall be maintained as long as that part of the plant, equipment and machinery are in use.

(4) 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 person doing the work. When repairs or modification is done on pipelines, and joints are required to be welded but welding of joints are required to be welded, the responsible person shall regulate the aforesaid work through a 'permit to work system'.

**16. Staging.** - (1) All staging that is erected for the purpose of maintenance work or repair work or for work connected with entry into confined spaces and used in the processes included in Appendix 'A' shall be stable, rigid and constructed out of substantial material of adequate strength. Such staging shall conform to the respective Indian Standard specifications.

(2) Staging shall not be erected over any closed or open vessel unless the vessel is so constructed and ventilated to prevent exposure or persons working on the stages.

(3) All the staging constructed for the purpose of this work shall have appropriate access which are safe and shall be fitted with proper hand rails to a height of one metre and toe-board.

**17. Seating arrangements.** - The seating arrangements provided for the operating personnel working in processes covered in Appendix 'A' shall be located in a safe manner as to prevent the risk of exposure to toxic, flammable and explosive substances evolved in the work environment in the course of manufacture or repair of maintenance, either due to failure of plant and equipment or due to the substances which are under pressure, escaping into the atmosphere.

**18. Entry into or work in confined spaces.** - (1) The occupier of every factory to which the provisions of this schedule apply, shall ensure the observance of the following precautions before permitting any person to enter or work inside the confined spaces :-

(a) identify all confined spaces and the nature of hazards that are encountered in such spaces, normally, or abnormally, and arrange to develop the most appropriate safeguards for ensuring the safety and health of persons entering into or working inside, the confined spaces;

(b) regulate the entry or work inside the confined spaces through a 'permit to work system' which should include the safeguards so developed as required under sub-clause (a) above;

(c) before testing the confined space for entry into or work, the place shall be rendered safer by washing or cleaning with neutralizing agents or purging with steam or inert gases and making adequate forced ventilation arrangements or such measure which will render the confined space safe;

(d) shall arrange to carry out such tests as are necessary for the purposes by a competent person and ensure that the confined space is safe for the person to enter or work. Such testing shall be carried out as often as is necessary during the course of work to ensure its continued safety;

(e) shall arrange to educate and train the personnel who would be required to work in confined spaces about the hazards involved in the work. He shall also keep in readiness the appropriate and approved personal protective equipment including arrangements for rescue, resuscitation and first aid, and shall arrange supervision of the work at all times by a responsible and knowledgeable person.

(2) The manager shall maintain a log of all entry into a work-in, confined spaces and such record shall contain the details of persons assigned for the work, the location of the work and such other details that would have a bearing on the safety and health of the persons assigned for this work. The log book so maintained shall be retained as long as the concerned workers are in service and produced to the inspector cum facilitator when demanded.

**19. Maintenance work etc.** - (1) All the work connected with the maintenance of plants and equipment including cleaning of empty containers which have held hazardous substances used in the processes covered in this Schedule, shall be carried out under 'permit to work system' employment trained personnel and under the supervision of responsible person having knowledge of the hazards and precautions required to deal with them.

(2) Maintenance work shall be carried out in such a manner that there is no risk to persons in the vicinity or to persons who pass by. If necessary, the place of such work shall be cordoned off or the presence of unconnected persons effectively controlled.

**20. Permit to work system.** - The permit to work system shall *inter alia* include the observance of the following precautions while carrying out an specified work to be subjected to the permit to work system :-

(a) all work subject to the permit to work system shall be carried out under the supervision of a knowledgeable and responsible person;

(b) all sorts of plant or machinery or equipment on which permit to work system is carried out, shall remain isolated from other parts throughout the period of permit to work and the place of work including the parts of plant, machinery shall be rendered safe by cleaning, purging, washing, etc.;

(c) all work subject to the permit to work system shall have predetermined work procedures which integrate safety with the work. Such procedures shall be reviewed whenever any change occurs in material or equipment so that continued safe/safety is ensured;

(d) persons who are assigned to carry out the permit to work system shall be physically fit in all respects taking into consideration the demands and nature, of the work before entering into the confined space. Such person shall be adequately informed about the correct work procedures as well as the precautions to be observed while carrying out the permit to work system;

(e) adequate rescue arrangements wherever considered necessary and adequate first aid, rescue and resuscitation arrangements shall be available in good working condition near the place of work while carrying out the permit to work system, for use in emergency;

(f) appropriate and approval personal protective equipment shall be used 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 for persons assigned for collecting sample by instructing them on the safe procedure. Such personnel shall be provided with proper and approval personnel protection 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 could result in explosion, are not permitted to be build up in the work environment.

**23. Procedures for meeting emergencies.** - (1) The occupier of every factory carrying out the works covered in Appendix 'A', shall arrange to identify all types of possible emergencies that could occur in the processes during the course of work or while carrying out maintenance work or repair work. The emergencies so identified shall be reviewed every year.

(2) The occupier shall formulate a detailed plant to meet all such identified emergencies including arrangements for summoning outside help for rescue and firefighting and arrangements for making available urgent medical facilities.

- (3) The occupier shall send the list of emergencies and the details of procedures and plans formulated to meet the emergencies, to the Chief Inspector cum facilitator
- (4) The occupier shall arrange to install distinctive and recognizable warning arrangements to caution all persons inside plant as well as the neighboring community, if necessary, to enable evacuation of persons and to enable the observance of emergency procedures by the persons who are assigned emergency duties. All concerned must be well informed about the warning arrangements and their meaning. The arrangements must be checked for its effectiveness every month.
- (5) Alternate power supply arrangements shall be made and interlocked with the normal power supply system so as to ensure constant supply of power to the facilities and equipment meant for compliance with requirements of paragraphs 10, 11, 12, 13,14, 18, 22 and this paragraph of Part II, Part III, Part IV and Part V of this Schedule.
- (6) The occupier shall arrange to suspend the further process work in a place where emergency is established and shall forthwith evacuate all persons in that area except workers who have been assigned emergency duties.
- (7) All the employees of the factory shall be trained about the action to be taken by them including evacuation procedures during emergencies.
- (8) All emergency procedures must be rehearsed every three months and deficiencies, if any, in the achievement of the objectives shall suitably be corrected.
- (9) The occupier shall arrange to have ten per cent of the workers trained in the use of first aid fire fighting appliances and in rendering of specific first aid measure taking into consideration the special hazards of the particular process.
- (10) The occupier shall furnish immediately on request the specific chemical identity of the hazardous substance to the treating physician when the information is needed to administer proper emergency or first-aid treatment to exposed.

**24. Danger due to effluents.** - (1) 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.

(2) Effluents which contain or give rise in the presence of other effluents to poisonous gases shall be provided with independent drainage system to ensure that they may be trapped and rendered safe.

### **Fire and Explosion Risk**

**25. Isolation of building and site and fire resistance.**- (a) Buildings and plants shall be sited with due regards to the dangers which may arise from the processes involved and in particular shall be spaced at distance which are deemed safe for the fire and explosion risk connected with the processes in adjacent buildings. Consideration shall be given to the effect of any process carried out in adjacent factories or plants.

(b) Where special dangers exist separate buildings shall be used for the different parts of a process. They shall be spaced at sufficient distances apart and shielded to prevent damage to each other on the event of fire or explosion, and shall be safe-guarded by the provision of suitable blow-out panel roofs. Where the risk of fire or explosion is considerable, the building shall be divided by blast or protective screen walls.

(c) No combustible materials shall be used in the erection of working buildings, unless there are special reasons necessitating their use, in which case they shall be of light fire resistant construction, and

floors shall be of impervious fire-resistant material and shall be regularly maintained in such conditions.

26. *Dangers of ignition (including lighting installation).*- (a) No internal combustion engine, and no electric motor or other electric equipment, capable of generating sparks or otherwise causing combustion shall be installed or used in a building or danger zone. Electric conductor shall be encased in screwed steel conduit.

(b) All hot exhaust pipe shall be installed outside a building and other hot pipes inside the plant be suitably protected.

(c) Portable electric lamps shall not be used, unless of an intrinsically safe type, and portable electric tools connected by flexible wires shall not be used except of the flame proof type.

(d) Where an inflammable atmosphere may occur, the sole of foot-wear worn by workers shall have no metal on them, and the wheels of trucks, or conveyors shall be of a material which shall be a good conductor and non-sparking. Adequate precautions shall be taken to prevent the ignition of explosive or inflammable substances by sparks emitted from locomotives or other vehicles operated in the factory or on public lines.

(e) No electric lamp or naked light, fixed or portable, shall be used, and no person shall have in his possession any match or any apparatus of any kind for producing a naked light or spark in, or on, or about any part of the factory, where there is any likelihood of fire or explosion from inflammable gas, vapour or dust, and all incandescent electric lights in such parts shall be in double air light glass covers.

(f) Prominent notice in the language understood by the majority of the workers and legible by day and by night, prohibiting smoking, the use of naked lights and the carrying of matches or any apparatus for producing a naked light or spark, shall be affixed at the entrance of every room or place where there is any risk of fire or explosion from inflammable gas, vapour or dust. In the case of illiterate workers the contents of the notices shall be fully and carefully explained to them when they commence work in the factory for the first time and again when they have completed one week at the factory.

(g) A sufficient supply of spades, scrapers and pails made from non-sparking materials shall be provided for the use of persons employed in cleaning out or removing residue from any chamber, still tank or any other vessel wherein there may be risk of ignition or explosion, or in cleaning or removing any substance which may cause evolution of arseniuretted hydrogen or any other substance which may be inflammable or likely to cause explosion, and in no case any tool other than non-sparking tool shall be used on any such work or, while undertaking any repair or maintenance work at any such place or plant.

*Note.*- The risk is not always obvious and may arise, for example through the production of hydrogen or other explosive substances in acid tanks.

27. *Static electricity and tightening protection.*- (a) All pipe lines and belts and other machinery and plants on which static electricity is likely to accumulate, shall be effectively earthed. Receptacles for inflammable liquids shall have metallic connections to the earthed supply tanks to prevent sparking of static electricity. Where necessary humidity shall be controlled.

(b) Mobile tank wagons shall be earthed during filling and discharge, and precautions shall be taken to ensure that earthing is effective before such filling or discharge takes place.

(c) Lightning protection apparatus shall be fitted where necessary, and shall be maintained in good condition.

28. *Process heating.*-The method of providing heat for a process shall be as safe as possible and where the use of naked flame is unavoidable the plant shall be so constructed as to prevent any escaping inflammable gas, vapour, or dust coming into contact with the flame, or exhaust gases, or other hot agency likely to cause ignition and, unless impracticable, the heating medium shall be automatically controlled at a pre-determined temperature below the danger temperature.

29. *Escape of materials.*-(a) Provision shall be made in all plants, sewers drains flues, ducts culverts and buried pipes to prevent the escape and spread of any liquid, gas, vapour, fume or dust likely to give rise to fire or explosion, during normal working, cleaning or overhauling or in the event of accident or emergency.

(b) If escape occurs, such substances shall be removed expeditiously and efficiently at the point of liberation. The effluent shall be trapped and rendered safe outside the danger area.

30. *Leakage of inflammable or dangerous liquids.*-Provision shall be made to confine by means of bund, walls, sumps, etc., possible leakages from vessels containing inflammable or dangerous liquids.

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

31. *Cleaning of empty containers and storage of combustible materials.*- (a) All empty containers which have held any inflammable or poisonous material and metal containers which have held sulphuric acid shall be rendered permanently and completely safe and shall not be repaired, or destroyed; until their cleaning in such manner as to make them completely and permanently safe has been completed.

(b) Combustible and inflammable materials shall not be stored in close proximity to chemicals which are liable to cause ignition.

(c) Rubbish shall be removed from buildings without delay and placed in special metal containers provided with close fitting lids. The contents shall be removed daily and suitably dealt with. Waste products containing inflammable or explosive materials shall not be placed on rubbish heaps but shall be destroyed in an appropriate manner.

32. *Installing of pipe lines for inflammable liquids.*- All pipe lines for the transport of inflammable liquids shall be protected against damage or breakage shall be arranged so that there is no risk of mechanical damage from vehicles and shall be so laid that, they drain throughout without the collection of deposits at any part. All flanged joints, bends and other connections shall be regularly inspected. Cocks and valves shall be so constructed that explosive residues cannot collect therein. The open and closed positions of all cocks and valves shall be clearly indicated on the outside.

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

34. *Safety valves.*- Every still and every closed vessel in which gas is evolved or into which gas is passed, and in which the pressure is likely to rise to a dangerous degree, shall have attached to it a pressure gauge and a proper safety valve or other equally efficient means to relieve the pressure

maintained in good condition. But this will not apply to metal bottles or cylinders used for the transport of compressed gases.

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

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

37. *Alarm systems.*- (a) Gravity or pressure-feed systems for supplying inflammable materials to the various parts of the buildings or plant shall be fitted with alarm systems automatic cut-offs of other devices to prevent overcharging or otherwise endangering the plant.

(b) The amount of inflammable material taken into a building in bulk containers shall be kept as low as practicable at any one time.

(c) Adequate steps shall be taken to prevent the escape of inflammable and explosive vapours from any container into the atmosphere of any building:

#### **Gas, Vapour, Fume or Dust Risks.**

38. *Escape of gases, etc.*-(a) Effective steps shall be taken to prevent the escape of dangerous gases, vapours, fumes or dust from any part of the plant, by total enclosure of the process involved or by provision of efficient exhaust draught. Effective arrangements shall be made to ensure that in the event of failure of the control measure provided in compliance of the foregoing, the process shall stop immediately.

(b) In the event of any such escape, provision shall be made to trap the materials and render them safe.

39. *Danger due to effluents.*-(a) Adequate precautions shall be taken to prevent the mixing of effluents which may cause dangerous or poisonous gases to be evolved.

(b) Effluents which may contain or give rise to such gases in the presence of other effluents shall be provided with independent drainage system to ensure that they may be trapped and rendered safe.

40. *Staging.*-(a) Staging shall not be erected over any open vessel unless the vessel is so constructed and ventilated as to prevent the emission of vapour or fumes about such staging.

(b) Where such staging is provided to give access to higher level in large plants, effective means shall be provided at all levels with direct means of access to the outside of the room or building and thence to ground level.

(c) Such staging shall be fitted with suitable hand-rails and toe-boards and the floors and staging shall be impervious and easily cleanable.

41. *Instruction as regards risk.*-Before commencing work, every worker shall be fully instructed on the properties of the materials they have to handle and of the dangers arising from any gas, fumes, vapour or dust which may be evolved during the process. Workers shall also be instructed in the measures to be taken to deal with the escape of such gas, fumes or vapours in the event of emergency.

42. *Breathing apparatus.*- (a) There shall be provided in every factory where dangerous gas of fume is liable to escape a sufficient supply of –

- (i) Breathing apparatus of an approved make for the hazards involved,
- (ii) Oxygen and suitable means of its administration, and
- (iii) Life-belts.

The breathing apparatus and other appliances required by this clause shall be maintained in good order and kept in an ambulance-room or in some other suitable place; which shall be within easy approach, and inspected once in every month by a competent person, appointed in writing by the occupier and a record of their condition shall be entered in a register provided for that purpose:

Provided that the Inspector of Factories may direct to keep the breathing apparatus and other appliances at such convenient place as he may consider suitable.

(b) Worker shall be trained, and given a periodic refresher course, at least once in every five months in the use of breathing apparatus and respirators.

Respirators shall be kept properly labelled in clean dry light proof cabinets, and if liable to be affected by fumes, shall be protected by suitable containers. Respirators shall be dried and cleaned after use and shall be periodically disinfected.

43. *Treatment of persons.*-In every room or place where there is any danger of gassing and burns, there shall be a fixed official cautionary notice regarding gassing and burns. Such notices shall be legible by day and by night and shall be printed in the language understood by the majority of the workers.

44. *Personnel protection equipment.*- (a) Suitable protective clothing shall be provided for the use of operatives:

(i) when operating valves or cocks controlling fluids which by their nature, pressure or temperature would be dangerous if a blow-out occurred or when cleaning chokes in systems containing such fluids if pressure is likely to exist behind the chokes.

(ii) when there is danger of injury by absorption through the skin during the performance of normal duties or the event of emergency.

(iii) when there is any risk of injury while handling corrosive substances, hot or cold articles, or sharp or rough object, and

(b) There shall be provided for the use of persons employed in the processes specified in Appendix II of this Schedule an adequate supply of such suitable protective equipments as indicated in the said appendix.

Respirators shall be of a type suitable for the process for which they are to be used, provided that the Inspector may, by an order in writing, direct that a particular type of respirator or any other equipment shall be used for a particular process.

(c) Protective equipments shall be provided and stored in an appropriate place and in a manner so that they may, be easily accessible and readily available without any unnecessary delay, whether for normal use or for use during abnormal conditions and emergencies.

(d) Arrangements shall be made for the proper and efficient cleaning of all such protective equipments.

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

working clothes. The rooms provided shall be placed in the charge of an attendant and shall be kept clean.

46. *Special bathing accommodation.*- There shall be provided and maintained by the occupier for the use of persons employed in the processes specified in Appendix III to this Schedule, specifically allocated washing and bathing facilities. The washing and bathing facilities shall satisfy the following requirements: -

(a) Basins and trough shall have smooth impervious upper surface and be fitted with waste pipe and plug and shall have supply of running water laid on and available at all times. Every trough shall have a supply of running water laid on at points above the trough at intervals of not less than two feet and available at all times.

(b) Basins and troughs shall be sufficient in number to provide at least one unit for every ten workers. For calculating the number of units required the remainder left after dividing the number of workers by ten shall be counted as ten. For the purposes of this clause a unit means one basin or two feet of length of a trough or in the case of circular or oval troughs two feet of the circumference of a trough.

(c) There shall be at least one enclosed bath room with a tap on a stand pipe or shower with soap and towel for every ten persons and the running water supply shall be capable of yielding at least ten gallons a day for each person, which shall be available at all times.

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

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

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

### **Corrosive or Deleterious Substances Risks**

50. *Buildings.*-All buildings and plants shall be sited with due regard to possible dangers from accidental liberation or splashing of corrosive and deleterious liquids, and shall be so designed as to facilitate through washing and cleaning. The construction of staging and other parts of buildings shall be carried out with materials impervious and resistant to corrosion so far as practicable.

51. *Leakage.*-(a) All plants shall be so designed and constructed as to obviate the escape of corrosive liquid, where necessary, separate buildings, rooms or protective structures shall be used for the dangerous stages of the process and the buildings shall be so designed as to localise any escape of liquids.

(b) Catch pits and bund walls shall be provided or other suitable precautions shall be taken to restrict the serious effects of such leakages. Catchpits shall be placed below joints in pipe-lines where there is danger involved to maintenance and other workers from such leakage.

(c) Passages and work-stations shall not be situated directly below any part of plant where there is risk of escape of dangerous liquid. Access to such parts shall so far as practicable, be prohibited, and danger notices shall be affixed at suitable points.

52. *Precautions against escape.*- Adequate precautions shall be taken to prevent the escape of corrosive or deleterious substances and means shall be provided for rendering safe any such escape.

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

54. *Covering of vessels.*- (a) No worker shall be allowed to climb over any fixed vessel or structure containing any dangerous material, which is not so covered as to eliminate any risk of accidental immersion in it of any portion of the body of a worker. Such vessels and structures shall be so constructed that there is no foothold on the top or the sides.

(b) Such vessel, shall unless its edge is at least three feet above the adjoining ground or platform, be securely fenced to a height of at least three feet above such adjoining ground or platform.

(c) No plank or gangway shall be placed across or inside any such vessel, unless such plank or gangway is at least 18 inches wide and is securely fenced on both sides by rails spaced 9 inches apart to a height of at least three feet, or by other equally efficient means.

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

Provided that sub-clause (b) of this clause 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.

55. *Ventilation.*- Adequate ventilation shall be provided and maintained at all times in rooms or buildings where dangerous gas, vapour, fume or dust may be evolved.

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

57. *Treatment of personnel.*-In all places where strong acids or other corrosive liquids are used

(a) there shall be provided for use in an emergency –

(i) adequate and readily accessible means of drenching with cold water persons, and the clothing of persons, who may get splashed with such liquid;

(ii) adequate and special arrangements to deal with any person who has been splashed with poisonous material that can be absorbed through the skin;

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

(b) Except where the manipulation of such corrosive liquids is so carried on as to prevent risk of personal injury from splashing or otherwise, there shall be provided for those who have to manipulate such liquids sufficient and suitable goggles and gloves or other suitable protection for the eyes and hands. If gloves are provided they shall be collected, examined, and cleansed at the close of the day's work and shall be repaired or renewed whenever necessary

58. *Maintenance*.- (a) Before any examination or repair is carried out on a plant or a pipe-line a competent person shall issue a clearance certificate permitting such examination or repair.

(b) Adequate precautions shall be taken to liberate any pockets of gas or liquid which may have been formed in pipe-lines, and which may cause spray of the gas or the liquid at the point where dismantling takes place.

58A. *Permissible levels in work environment*.- 'Permissible levels of certain chemical substances in work environment'. With prejudice to the requirements in any other provisions in the Act or the rules, the following requirements with respect to permissible levels of certain chemical substances in work environment shall apply to all chemical work:

(i) *Definitions*.-For the purpose of this clause –

(a) "mg/m<sup>3</sup>" means milligrams of a substance per cubic meter of air;

(b) "mppcm" means million particles of a substance per cubic meter of air;

(c) "ppm" means parts of a substance per million parts of air volume at 25°C and 760 mm.of mercury pressure;

(d) "time weighted average concentration" means the average concentration of a substance in the air at any work location in a factory computed from evaluation of adequate number of air samples taken at that location, spread over the entire shift on any day, after giving weightage to the duration for which each such sample is collected and the concentration prevailing at the time of taking the sample.

The weighted average concentration

CT+	CT+	CT
11	12	nn
T+	T+	T+
2	2	m

Where C/1 represents the concentration of the substance for duration T/1 (in hours).

C/2 represents the concentration of the substance for duration T/2 (in hours); and C/n represents the concentration of the substance for duration T/n (in hours).

(e) "Work location" means a location in a factory at which a worker works or may be required to work at any time during any shift on any day.

(ii) *Limits of concentrations of substances at work locations*.-The time weighted average concentration of any substance listed in Table 1 or 2 of the clause, at any work vacation in a factory during any shift

on any day shall not exceed the limit of the permissible time weighted average concentration specified in respect of that substance;

(iii) In the case of substance mentioned in Table 1 in respect of which a Limit in form of short term maximum concentration is indicated, the concentration of such a substance may exceed the permissible limit of the time weighted average concentration for the substance for short periods not exceeding 15 minutes at time, subject to the condition that –

(a) Such periods during which the concentration exceeds the prescribed time weighted average concentration are restricted to not more than 4 per shift;

(b) the time interval between any two such periods of higher exposure shall not be less than 60 minutes; and

(c) at no time, the concentration of the substance in the air shall exceed the limit of short term maximum concentration.

(iv) In the case of any substance given in Table 3, the concentration of the substance at any work location in factory at any time during any day shall not exceed the limit of exposure for substance specified in the table.

(v) In the cases where the word "skin" has been indicated against certain substances mentioned in Tables 1 and 3 appropriate measures shall be taken to prevent absorption through cutaneous routes particularly skin, mucous, membranes, and eyes as the limits specified in these. Tables are for conditions where the exposure is only through respiratory tract.

(vi) In case, the air at any work location contains a mixture of such substance mentioned in Tables 1, 2 and 3 which have similar toxic properties, the time weighted concentration of each of these substances during the shift should be such, that when these time weighted concentration divided by the respective permissible time weighted average concentration specified in the above mentioned tables, are added together, the total shall not exceed unity.

$C_1 + C_2 + \dots + C_m$  shall not exceed unity when  $C_1, C_2, \dots, L_1, \dots, L_2, \dots, L_n, \dots, C_n$  are the time weighted concentration of toxics, substances 1, 2, ... and respectively determined after measurement at work location. And  $L_1, L_2, \dots, L_n$  are the permissible time weighted average concentration of the toxic substances 1, 2, ... and respectively.

(vii) In the case the air at any work location contains a mixture of substances, mentioned in Tables 1, 2 and 3 and these do not have similar toxic properties, then the time weighted concentration of each of these substances shall not exceed the permissible time weighted average concentration specified in the above mentioned tables, for that particular substances:

Provided that the requirements in sub-clauses (vi) and (vii) shall be in addition to the requirements in sub-clauses (ii), (iii) and (iv).

(viii) *Sampling and evaluation procedures.*-(a) Notwithstanding provisions in any other paragraphs, the sampling and evaluation procedures to be adopted for checking compliance with the provisions in the clause shall be as per standard procedures in vogue from time to time or as approved by the Chief Inspector.

(b) Notwithstanding any other provisions the following conditions regarding the sampling and evaluation procedures relevant to checking compliance with the provisions in the clause are specified: -

(A) For determination samples of the number of particles per cubic meter samples are to be collected by standard or midge impinger and the counts made by light-field technique.

(B) The percentage of quartz in the 3 formula given in item 1 (a) (i) of Table 2 is to be determined from air borne samples.

(C) For determination of number of fibres as specified in item 2 (a) of Table 2, the membranes filter method at 430 x phase contrast should be used.

(D) Both for determination of concentration and percentage of quartz for use of the formula given in item 1 (a) (i) (2) of Table 2, the fraction passing through a size selector with the following characteristic should only be considered.

<b>Aerodynamic diameter (Unit density sphere).</b>	<b>Percentage allowed by Size-selector.</b>
2.0	90
2.5	75
3.5	50
5.0	25
10.0	0

(ix) *Power to require assessment of concentration of substance.*-(a) An Inspector may by an order in writing direct the occupiers or manager of factory to get before any specified date, the assessment of the time weighted average concentration at any work location at any of the substances mentioned in Tables 1, 2 or 3 carried out.

(b) The results of such assessment as well as the method followed for air sampling and analysis for such assessment shall be sent to the Inspector within 3 days from the date of completion of such assessment and also a record of the same maintained in the bound register and kept readily available for inspection by an Inspector.

(x) *Exemption.*- If in respect of any factory or a part of factory, the Chief Inspector is satisfied that by virtue of the pattern of working time of the workers at different work locations or on account of other circumstances no worker exposed, in the air at the work locations, to a substance or substances specified in Tables 1, 2 or 3 to such an extent as is likely to be injurious to his health, he (the Chief Inspector) may by an order in writing exempt the factory or part of the factory from such requirements, subject to such conditions, if any, as he may specify therein.

**Table 1.**

<b>Substance</b>	<b>Permissible limit of exposure</b>			
	<b>Time weighted average concentration</b>		<b>Short – term maximum concentration</b>	
	<b>ppm</b>	<b>mg/m<sup>3</sup></b>	<b>ppm</b>	<b>mg/m<sup>3</sup></b>
<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>
Acetic acid	10	25	15	7
Acrolein	0.1	0.25	0.3	0.8

Aldrin (Skin)	...	0.25	...	0.75
Ammonia	25	18	35	27
Anilink (skin)	2	10	5	20
Anilidine (Opisomers Skin)	0.1	0.5	...	...
Arsenic& Compounds (as As)	...	0.2	...	...
Benzene	10	30	...	...
Bromine	0.1	0.7	0.5	2
2 Butanone (Mothylethy Ketone MEK)	200	590	300	885
n-Butyle acetate	150	710	200	950
Sectert. Butyl acetate	200	950	250	1190
Cadmium dust and salts (as CD)	...	0.05	...	0.2
Calcium Oxide	...	2	...	...
Carbaryl (Sevin)	...	5	...	...
Carbofuran (Furadan)	...	0.1	...	10
Carbon disulfide (Skin)	20	60	30	...
Carbon monoxide	50	55	400	90
Carbon tetrachloride (Skin)	10	65	20	440
Carbonyl chloride (phosgene)	0.1	0.4	...	130
Chlordance (Skin)	...	0.5	...	...
Chlorobenzene (onochlors-benzene)	75	350	...	2
Chlorine	1	3	3	...
bis-chloromethyl ether	0.001	...	...	9
Chromic acid and chromites (as Cr.)	...	0.05	...	...
Chromium, Sel. Chromic Chromous	...	0.5	...	...
Salts (as Cr.)	...	...	...	...

Copper Fume	...	0.2	...	...
Cotton dust raw	...	0.2	...	0.6
Cresol, all isomers (Skin)	5 22	...	...	
Cyanides (as Ch)-(Skin)	...	5	...	...
Cyanogen	10	20	...	...
DDT (Dichloridiphenyl trichloroethane)	...	1	...	3
Demeton skin	...	0.1	0.02	0.3
<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>
Diazinon-skin	...	0.1	...	0.3
Dibutyle Phthalate	...	5		10
Dichlorves (DD VP)-skin	0.1	1	...	3
Dield-rin-skin	...	0.25	...	0.75
Dinitre benzene (all isomer-skin)	0.15	1	0.3	3
Dinitootoluene-skin	...	1.5	...	4
Diphenyl	0.2	1.5	0.5	4
Endrin-skin	...	0.1	0.6	0.3
Ethyl acetate	400	1000	0.6	...
Ethyl amine	10	18	...	...
Ethyl amine	10	18	...	...
Ethyl alchohal	1000	1900	...	...
Fluorides (as F)	...	2.5	...	...
Fluorine	1	2	2	4
Hydrogen cyanide-skin	10	1	15	16
Hydrogen sulfide	10	15	15	27
Iron oxide from (FE <sub>2</sub> O <sub>3</sub> as Fe)	...	5	...	10
Isommyl acetate	100	525	125	655
Isobutyl alcohol	50	150	75	225
Isoamyl alcohol	100	360	125	450

Lead, inorg, fumes and dust (as Pb)	...	0.15	...	0.15
Linda-he-skin	...	0.5	...	1.5
Malathoion-skin	...	10	...	...
Manganese fume (as Mn)	...	...	1	3
Mercury (as Hg)	...	0.05	...	0.15
Mercury (aidyl compounds skin) (as Hg)	0.001	0.01	0.003	0.03
Methyl alcohol (methanol) skin	200	260	250	310
Methyl collosove-skin (2-methoxy ethanol)	25	80	35	120
Methyl isobutyl Ketone-skin	100	410	125	510
Napthalene	10	50	15	75
Nickel corbony (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

01	02	03	04	05
Phorate (Thimet)- skin	...	0.65	...	...
Phosgene (Carbonyl chloride)	0.1	0.4	...	...
Phosphine	0.3	0.4	1	1
Phosphorus (Yellow)	...	0.1	...	0.3
Phosphorus pentachloride	...	1	...	3

Phosphorus trichloride	0.5	3	...	...
Picric acid-skin	...	0.1	...	0.3
Peyridine	5	15	10	30
Sili-ne (Silicon tetrahydrine)	0.5	0.7	1	1.5
Styrene, monomer (pheny, othylene)	100	420	125	525
Sulfer dioxide	5	15	...	...
Sulphuric acid	...	1	...	...
Toluene (toulo) skin	100	375	1545	560
O-Toludine	5	22	10	44
Trichloroethylene	100	535	150	800
Vinyl chloride	5	10	...	...
Welding Fumes (NOC)	...	5	...	...
Xylene (o-m-p-isomers) skin	100	435	150	655

**Table 2**

Substance	1	2	Permissible time-weighted average concentration.
1.Silica –			
(a) Crystalline –			
(i) Quartz –			
(1) In terms of dust court			$\frac{1060}{\% \text{ Quartz}+10}$ mppcm
(2) In terms of respirable dust			$\frac{10}{\% \text{ respirable quartz}+2}$ Mg/m <sup>3</sup>
(3) In terms of total dust			$\frac{30}{\% \text{ quartz}-3}$ Mg/m <sup>3</sup>
(ii) Cristobalite	...		Half the limits given against quartz.
(iii) Tridymite	...		Half the limits given against quartz.

(iv) Silica fused	...	Same limit as for quartz.
(v) Tripoli	...	Same limit as in formula in item 2 given against quartz.
	...	750mppcm
2.Silicate having less than 1% free silica by weight –	...	
(a) Asbestos- fibres longer than 5 mucrons –	...	0.5 fibre/cubic centimeter.
(i) Amosite	...	2 fibres/cubic centimeter.
(ii) Chrysolite	...	0.2 fibres/cubic centimeter.
(iii) Crocidolite	...	2 fibres/cubic centimeter.
(iv) Other form	...	705 mppcm.
(b) Mica	...	10 mg/m <sup>3</sup>
(c) Mineral wool fibre	...	1060 mppcm.
(d) Porlite	...	1060 mppcm.
(e) Portland cement	...	705 mppcm.
(f) Soap stone	...	705 mppcm.
(g) Talc (non-abosti form)	...	Same limit as for asbestos.
(h) Talc (fibrous)	...	Same limit as for asbestos.
(i) Tromolite	...	
3. Coal dust –		5% silicon dioxide by weight.
(1) For air born dust having less than – 2 mg/m <sup>3</sup>		Same limit as prescribed by formula item (2) against quartz.
(2) For air-borne dust having over 5% silicon dioxide.		

**Table 3**

Substance	Permissible limit of exposure.	
	PPM	mg/m <sup>3</sup>
1	2	3

Acetic an-hydride	5	20
O-Dichlorobenzene	50	300
Formaldehyde	2	3
Hydrogen Chloride	5	7
Manganese 1 Compounds (as Mn)	...	5
Nitrogen-dioxide	5	9
Nitroglycerin-skin	02	2
Potassium hydroxide	...	2
Sodium hydroxide	...	2
2, 4, 6 – Trinitrotoluent (TNT)	...	0.5

### Welfare

59. *Washing facilities.*-(a) There shall be provided and maintained in every chemical works for the use of employed persons adequate and suitable facilities for washing which shall include soap and nail brushes or other suitable means of cleaning and the facilities shall be conveniently accessible and shall be kept in a clean and orderly condition.

(b) If female workers are employed, separate washing facilities shall be provided and so enclosed or screened that the interiors are not visible from any place where persons of the other sex work or pass. The entrance to such facilities shall bear conspicuous notice in the language understood by the majority of the workers "For woman only" and shall also be indicated pictorially.

(c) *Lunch room facilities.*- In every chemical works there shall be provided and maintained for the use of those remaining on the premises during the rest intervals, suitable and adequate lunch room which shall be adequately furnished and shall have sufficient drinking water supply.

(60) *Medical Examination.*-(a) The provisions of sub-clauses (b), (c), (d) and (e) shall apply in respect of the following processes: -

(i) Manufacture, processing, handling, or use of hexa ethyl tetra phosphate, Tetra ethyl pyro phosphate, Mercury derivatives, o.o. Diethyl o. p-nitrophenyl, Thiophosphate (parathion), Nicotine, Nicotine sulphate, Methyl bromide, Cyanides Arsenical derivatives.

(ii) Chrome processes.

(iii) Nitro or Amino processes.

### DUTIES OF WORKERS.

(b) Every person employed in any process specified in sub-clause (a) of this clause shall be examined by the Certifying Surgeon once in every three months on a date or dates of which due notice shall be given to all concerned and records of such examinations shall be maintained in the Health Register.

(c) No person shall be allowed to work unless a certificate of fitness has been granted after examination by the Certifying Surgeon and a signed entry made in the Health-Register.

(d) Every person so employed shall present himself at the appointed time for examination by the Certifying Surgeon as provided in clause (b) of this rule.

(e) If the Certifying Surgeon finds as a result of his examination that any person employed in such process is no longer fit for medical reasons to work in that process, he shall suspend such person from working in that process, for such time as he may think fit and no person after suspension shall be employed in that process without the written sanction of the Certifying Surgeon in the Health Register.

61. Duties of workers.- (i) Every person employed shall –

(a) report to his Foreman any defect in any fencing, breathing apparatus, appliances or other requisite provided in pursuance of this Schedule, as soon as he becomes aware of such defect;

(b) use the articles, appliances or accommodation required by this Schedule for the purpose for which they are provided;

(c) Wear the breathing apparatus and life-belt where required under this Schedule.

(ii) No person shall, -

(a) remove any fencing provided, unless duly authorised,

(b) stand on the edge or on the side of any vessel to which clause 48 applies;

(c) pass or attempt to pass any barrier erected in pursuance of clause 48;

(d) place across or inside any vessel to which clause 48 applies any plank of gangway which does not comply with the schedule or make use of any such plank or gangway while in such position;

(e) take a naked light or any lamp or matches or any apparatus for producing a naked light or spark into, or smoke in any part of the works where there is likelihood of explosion or fire from inflammable gas, vapour or dust;

(f) use a metal spade scraper or pail which is not non-sparking when cleaning out or removing the residues from any chamber, still tank or other vessel which has contained sulphuric acid or hydrochloric acid or other substance which may cause evolution of arseniurated hydrogen; or in which there is risk of ignition or explosion;

(g) remove from a First-Aid box or cupboard or from the Ambulance room any First-Aid appliance or dressing, except for the treatment of injuries in the works.

### **PART III**

62. The provisions of Part III shall apply to all chemical works and parts thereof in which –

(i) caustic pots are used; or

(ii) chlorate or bleaching powder is manufactured; or

(iii) (a) gas tar or coal-tar is distilled, handled or used in any process of chemical manufacture; or (b) a nitro or amino process is carried on; or

(c) a chrome process is carried on; or

(iv) crude shell-oil is refined or processes incidental thereto are carried on; or

(v) nitric acid is used in the manufacture of nitro compounds; or

(vi) evaporation of brine in open pans and the stoving of salt are carried on; or

(vii) manufacture or recovery of hydro-chloric acid or any of its salts is carried on; or

(viii) work at a furnace is carried on where the treatment of zinc ores is done; or

(ix) insecticides mentioned in Appendix I are manufactured, mixed, blended or packed.

63(i) *Entry in gas tar or coal-tar still.*- Before any person enters a gas tar or coal-tar still for any purpose, except that of rescue it shall be completely isolated from adjoining tar stills, either by disconnecting-

- (a) the pipe leading from the swan-neck to the condenser worm, or
- (b) the waste gas pipe fixed to the worm and/or receiver. In addition, blank flanges shall be inserted between the disconnected parts, and the patch discharge pipe or cock at the bottom of the still shall be disconnected.

(ii) *Entry into bleaching powder chamber.*-No person shall enter a chamber for the purpose of withdrawing the charge of bleaching powder unless and until-

- (a) the chamber is efficiently ventilated; and
- (b) air in the chamber has been tested and found to contain not more than 2.5 grains of free chlorine gas per cubic foot of air.

A register containing details of all such tests shall be kept in a suitable form or in a form approved by the Chief Inspector.

63 (iii) *Special precautions for nitro processes.*- In a nitro or amino process –

(a) if crystallised substances are broken or any liquor agitated by hand, means shall be taken to prevent as far as practicable, the escape of dust or fume into the air of any place in which any person is employed. The handles, of all implements used in the operations shall be cleaned daily;

(b) cartridges shall not be filled by hand, except by means of a suitable scoop;

(c) every drying stove shall be efficiently ventilated to the outside air in such a manner that hot air from the stove shall not be drawn into any work-room.

(d) no persons shall enter a stove to remove the contents, until a free current of air has been passed through it;

(e) every vessel containing nitro or amino derivatives of phenol or of benzene or its homologues shall, if steam is passed into or around it, or if the temperature of the contents be at or above the temperature of boiling water, be covered in such a way that steam or vapour shall be discharged into the open air at a height of not less than 25 feet from the ground or the working platform, and at a point from where it cannot be blown back again into the workroom.

64 *Precautions during caustic grinding, etc.*- Every machine used for grinding or crushing caustic shall be enclosed; and an efficient exhaust draught shall be provided where any of the following processes are carried on: -

- (i) Grinding or crushing of caustic;
- (ii) packing of ground caustic
- (iii) grinding, sieving, evaporating or packing in chrome processes;
- (iv) crushing, grinding or mixing of material or cartridge filling in a nitre or amino process.

65 *Chloride manufacture.*- (a) Chlorate shall not be crystallised, ground or packed, except in a room or place not used for any other purpose, the floor of which room or place shall be of cement or other smooth, impervious and incombustible material, and shall be thoroughly cleaned daily.

(b) wooden vessels shall not be used for the crystallisation chlorate, or contain crystallised or ground chlorate; provided that this shall not prohibit the packing of chlorate for sale into wooden casks or other wooden vessels.

66. *Restrictions on the employment of young persons and women.*- (a) Persons under 18 years of age and women shall not be employed in any process in which hydrofluoric acid fumes or ammoniacal vapours are given off or in any of the following operations:-

- (i) evaporation of brine in open pans;
- (ii) stoving of salt;
- (iii) work at furnace where the treatment of zinc ores is carried on; and
- (iv) cleaning of work-room where the process mentioned in (iii) is carried on.

(b) No person under 18 years of age shall be employed in a chrome process or in a nitro or amino process or in a process in which the carbon bi-sulphide, chlorides of sulphur, benzene, carbon chlorine compound or any mixture containing any of such materials are used or where the vapour of such materials is given off.

67. *Duties of employees.*-(a) Every worker shall use and wear the protective clothing, foot-wear, respirators, goggles, gloves or other protective appliances provided under this Schedule and shall deposit the overalls or suits or working clothings so provided, as well as clothings put off during working hours, at the place provided under clause 39.

(b) Every worker employed in any process to which clause 40 applies shall carefully wash his hands and face before partaking of any food or leaving the premises.

### Appendix I

All chemical works in which –

1. Chemical processes relating to the following are carried on: -

(a) Carbonates, chromates, chlorates, oxides or hydroxides of potassium, sodium, iron, aluminium, cobalt, nickel, arsenic, antimony, zinc or magnesium,

<sup>1</sup>[(ia) Cadmium and salts, carbon disulphide, chlorides and chlorine and compounds, copper, cyanides, flourine and compounds, lead, Manganese, Mercury, Phosphorous and compounds,

(ib) Oxides of calcium, Iron, Nitrogen, Sulphur and Carbon and Silica, Asbestos, Mica  
Mineral Wool Prolite, Portland Cement, Soap Stone, Talcum, Tromolite, Coal.

(b) Ammonia and the hydroxide and salts of ammonium,

(c) Sulphurous, sulphuric, nitric, hydrochloric, hydrofluoric, hydroiodic, hydrosulphuric, boric, phosphoric, oxalic, arsenious, arsenic, lactic, acetic, tartaric or citric acids and their

metallic or organic salts, and

(d) Cynogen compounds.

2. A wet process for the extraction of metal from ore or from any biproduct or residual material is carried on.

3. Electrical energy is used in any process of chemical manufacture.

4. Alkali waste or effluents therefrom is subjected to any chemical process for the recovery of sulphur, or for the utilisation of any constituent of such waste or effluent.

5. Carbon bisulphide is made or hydrogen sulphide is evolved by the decomposition of metallic sulphides or hydrogen sulphide is used in the production of such sulphides.

6. Bleaching powder is manufactured or chlorine gas is made or is used in any process of chemical manufacture.
7. (a) Gas tar or coal-tar or any compound product or residue of such tars is distilled or is used in any process of chemical manufacture.
- (b) Synthetic colouring matters or their intermediates are made.
8. Refining of crude shale oil or any process incidental thereto is carried out.
9. Nitric acid is used in the manufacture of nitro compounds.
10. Explosives are made with the use of nitro compounds.
11. Insecticides, which may be phosphorus, nicotine, mercury, naphthalene, cyanogen, arsenic fluoride, copper, benzene and ethane compounds or derivatives and methyl bromide, are manufactured, mixed, blended, and packed.
12. Viscose rayon is manufactured or processes incidental thereto are carried out.
13. Phosgene (carbonyl chloride) is manufactured, stored, handled, processed or used.
14. Aliphatic or aromatic compounds including petroleum and petroleum products and their derivatives or substituted derivatives are manufactured, processed or recovered.

## Appendix II

1. A nitro or amino process (overall suits or working clothes and protective footwear).
2. Grinding raw materials in a chrome process (overall suits).
3. The crystal department and in packing in a chrome process (protective coverings).
4. Packing in a chrome process (respirators).
5. Any room or place in which chlorate is crystallised, ground, packed (clothing of woollen material and boots or over shoes, the soles of which have no metal on them).
6. Any room in which caustic is ground or crushed to machine (goggles and gloves or other suitable protection for the eyes and hands).
7. Bleaching powder chambers, or in packing charges drawn from such chambers (suitable respirators).
8. Drawing off of molten sulphur from sulphur pots in the process of carbon disulphide manufacture (overalls, face shields, gloves and footwear of fire-proof materials).
9. (i) Manufacture, mixing, blending and packing of insecticides which are phosphorus, nicotine, naphthalene, cyanogen, arsenic, fluoride, mercury and copper compounds or derivatives and methyl bromide (rubber aprons, chemical type goggles and suitable respirators, and in addition rubber gloves and boots for phosphorus and nicotine derivatives, synthetic rubber aprons, gloves and boots when working with oil solutions, and washable working clothes laundered daily).
- (ii) Manufacture, mixing, blending and packing of insecticides which are derivatives of benzene or ethane (rubber aprons, and suitable respirators, separate work clothes laundered frequently).

## Appendix III

1. A nitro or amino process.
2. The crystal department and the packing room in a chrome process;
3. The process of distilling gas or coal-tar (other than blast furnace tar) and any process of chemical manufacture in which such tar is used.

4. The manufacture, mixing, blending and packing of insecticides mentioned in Appendix I.

### Sub-Schedule-12

#### Manufacture of Pottery

1. *Application*-This Schedule shall apply to all factories where in manufacture and decoration of pottery as hereinafter defined, and the manufactures and process, named below are carried on:-

- (a) Calcining, crushing, grinding sieving of flint or quartz;
- (b) Mixing of flint or quartz with clay or other materials in preparation of a pottery body;
- (c) Manufacture of lithographic transfers, frits or glazes for use in the manufacture or decoration of pottery; and
- (d) Processes incidental to the manufactures and processes mentioned above :

Provided that these rules shall not apply to factories in which any of the lowing articles, but no other potteries are made: -

- (i) Unglazed or salt glazed bricks and tiles; or
- (ii) Architectual tetra-cotta made from plastic clay, either unglazed or glazed with leadless glaze only:

Provided further that these rules shall be in addition to and not in derogation of any of the provisions of the Occupational Safety, Health and Working Conditions Code, 2020 or any other rules made thereunder or any other Act or Rules.

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

- (i) "Pottery" includes earthen ware, stone ware, porcelain, china tiles and any other articles made from clay or from a mixture containing clay and other materials;
- (ii) "Potter's Shop" includes all places where a pottery is formed by pressing or by any other process and all places where felting, shaping or other treatment of pottery articles prior to placing for the biscuit fire is carried on;
- (iii) "Fettling" includes scalloping, towing, sand-papering, sand-sticking and any other process of felting and cleaning of pottery;
- (iv) "Moist method" when this expression is used in relation to cleaning, means a method of cleaning in which damp saw-dust or other suitable damp material is used and which prevents dust from rising into the air during the cleaning process;
- (v) "Stopping of biscuit ware" means the filling up of cracks in ware which has been fired but to which glaze has not been applied.
- (vi) "Thimble picking" means the picking over, sorting or re-arranging for further use of thimbles, stilts, spurs, strips, saddles or any similar articles which has been used for the support of pottery articles during the process of glost firing.
- (vii) "Wedging of clay" means the treatment of clay which has not been pugged or rolled, by raising one piece of clay by hand and bringing it down upon another piece, but does not include

the process, frequently known as "slapping of clay" in which two pieces of clay each small enough to be held in one hand are slapped together;

(viii) "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, when determined in the manner as specified in the definition of "low solubility glaze"

(ix) "Low solubility glaze" means a glaze which does not yield to dilute hydrochloric acid more than five per cent of its dry weight of a soluble lead compound calculated as lead monoxide when determined in the manner described below:-

A weighed quantity of the material which has been dried at 100°C and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 per cent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate;

(x) "Ware cleaning" means the removal of surplus glaze from ware after the application of the glaze but before glaze firing and includes panel-cutting;

(xi) "Lithographic transfer making" includes the wiping of colour and subsequent brushing of transfer sheets;

(xii) "Flint or quartz milling" includes the calcining of flint and the sieving, crushing, grinding or any other manipulation of flint and quartz in, or incidental to the manufacture of ground flint or quartz;

(xiii) "Ground or powdered flint or quartz" does not include natural sands;

(xiv) "Efficient Exhaust draught" means localised ventilation effected by mechanical or other means, for the removal of gas, vapour, dust or fumes so as to prevent it from escaping into the air of any place in which work is carried on. No arrangement or device shall be deemed efficient which fails to remove effectively the gas, vapour, dust or fumes generated at the point where it originates, and which permits the substance removed to escape into or re-enter the same or any other work place either the directly or indirectly;

(xv) "Damp fettling" means fettling done either-

- (a) wholly with a wet sponge or any other suitable wet material, or
- (b) while they were being fettled is still so damp that no is given off,

(xvi) "Slip house" includes any place where plunging is carried on;

(xvii) "Flintless stoneware" means stoneware the body of which consists of natural clay to which no flint or quartz or other form of free silica has been added;

(xviii) "Flow material" means any material which contains a lead compound and which is placed in saggars with a view to its entire or a partial volatilisation during the glaze firing of the ware,

(xix) "Galena" means the native sulphide of lead containing not more than five per cent of soluble lead compound calculated as lead monoxide when determined in the manner described in the definition of low solubility glaze";

(xx) "Glaze" does not include an engobe or slip;

(xxi) "Glaze placing" includes-

- (i) the placing of ware coated with unfired glaze on to cranks or similar articles prior to their transference to saggars, trucks, ovens or kilns for glost firing,
- (ii) the placing of such ware into saggars or on to trucks or on to oven-conveyors.
- (iii) the placing of saggars containing such ware into ovens or kilns or on to trucks, and
- (iv) the removal and carrying of saggars or cranks from the oven, kiln or truck after glost firing except in the case of tunnel ovens.

3. *Exhaust Draught.*-(1) The following processes shall not be carried on without the use of an efficient exhaust draught;

- (i) all processes involving the manipulation or use of a dry and unfritted lead compound;
- (ii) fettling operation of any kind, whether on green ware or biscuit, provided that this shall not apply to the wet fettling and to the occasional finishing of pottery articles without the aid of mechanical power;
- (iii) Sifting of clay dust or any other material for making tiles or other articles by pressure, except where –
  - (a) this is done in a machine so enclosed as to effectively prevent the escape of dust; or
  - (b) the material to be sifted is so damp that no dust can be given off;
- (iv) Pressing of tiles from clay dust, an exhaust opening being connected with each press, this clause shall also apply to the pressing from clay dust of articles other than tiles, unless the material is so damp that dust is given off;
- (v) fettling of tiles made from clay dust by pressure, except where the fettling is done wholly on, or with, damp material, this clause shall apply to the fettling or other articles made from clay dust, unless the material is so damp that no dust is given off;
- (vi) process of loading and unloading of saggars where handling and manipulation of ground and powered flint, quartz, alumina or other materials are involved;
- (vii) brushing of earthen ware biscuit, unless the process is carried on in a room provided with efficient general mechanical ventilation or other ventilation which is certified by the Inspector of Factories as adequate, having regard to all the circumstances of the case;
- (viii) fettling of biscuit ware which has been fired in powered flint or quartz except where this is done in a machines so enclosed as to effectively prevent the escape of dust;
- (ix) ware cleaning after the application of glaze by dipping or other process;
- (x) crushing and dry grinding of materials for pottery bodies and saggars unless carried on in machines so enclosed as to effectively prevent the escape of dust or is so damp that no dust can be given off;
- (xi) seiving or manipulation of powered flint, quartz, clay grong, or mixture of these materials unless it is so damp that no dust can be given off;
- (xii) grinding of tiles on a power driven wheel unless an efficient water spray is used on the wheel;
- (xiii) lifting and conveying materials by elevators and conveyors unless they are effectively enclosed and so arranged as to prevent escape of dust into the air or near to any place in which persons are employed;
- (xiv) preparation or weighing out of flow material, lawning of dry colours, colour dusting and colour blowing;
- (xv) mould making unless the bins of similar receptacles used for holding plaster of paris are provided with suitable covers;

- (xvi) manipulation of calcined material unless the material has been made and remains so wet that no dust is given off;
- (xvii) fettling other than damp fettling;
- (xviii) placing of china for the biscuit fire if alumina or other powdered material is used;
- (xix) emptying of china biscuit flatware from saggars after firing in alumina or other powdered materials;
- (xx) sieving of alumina or other powdered placing material;
- (xxi) processes using alumina or other powdered substance as placing materials;
- (xxii) polishing of ware;
- (xxiii) grinding of ware on a dry sand-stone wheel;
- (xxiv) sorting of glost ware with a power driven tool;
- (xxv) ground laying or colour dusting, or the wipping off of colour after either of those processes.

(2) Every process for which an exhaust draught is required shall be carried on inside a suitable hood.

(3) Air discharged from exhaust ventilating plant used in connection with any of the processes specified in clause 3 (1) shall, whether or not it has been passed through dust collecting apparatus, be discharged directly into the open air from where it is not liable to be drawn into the air of any work-room.

4. Each of following processes shall be carried on in such a manner and under such condition 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 un-loading saggars;
- (b) all process involving the use of a dry lead compound.

5. Every slip house shall for the purpose of excluding dust be effectively separated from –

- (a) any place in which clay is dried;
- (b) any place in which clay is taken from a drier; and
- (c) any place in which the dry grinding or sieving or materials for pottery bodies is carried on.

6. Any glaze which is not a leadless glaze or low solubility glaze shall not be used in a factory in which pottery is manufactured.

7. No woman or young person shall be employed or allowed to work in any of the operations specified in clause 3 (1) or at any place where such operations are carried on in the following processes: -

- (i) the wedging of clay;
- (ii) wheel turning for a thrower or wheel turning for pressing tiles;

8. The potter's wheel (Jolly and Jigger) shall be provided with screens or so constructed as to prevent clay scapings being thrown off beyond the wheel.

9. (1) All possible measures shall be taken by damping or otherwise to prevent dust arising during cleaning of floors and wall.

(2) Damp saw dust or other suitable material shall be used to render the moist method effective in preventing dust arising into the air during the cleaning process which shall be carried out after work has ceased.

(3) All materials for timble picking which is collected from floors or work-benches shall be riddled in an enclosed receptacle before it is taken to the place where thimble picking is to be done.

(4) The following requirements shall apply to potter's shops and to any other place where clay is dried or clay dust is prepared:

All parts of beams, ledges, and fixtures, more than six feet six inches above the floor shall be cleaned at least once in every period of six months with an efficient vacuum cleaning apparatus or by some other effective and suitable method, and not by sweeping.

10. (1) The floors of potters shops, slip houses, dipping houses ware cleaning rooms, such drying stoves as are entered by work people and the floors of all places where sieving, crushing or grinding of flint and quartz is carried on shall: -

- (i) be smooth and impervious;
- (ii) be kept in good repair so that they can be properly cleaned by a moist method and so that no dust can fall through into any room below;
- (iii) be capable of being swilled or washed.

(2) All the floors shall be cleaned either: -

- (i) daily by a moist or wet method after work has ceased for the day and two hours before the hour of starting of the work the following day, or
- (ii) daily with an efficient vacuum cleaner.

11. (1) All persons employed in any process included under clause 3 shall be examined by the Certifying Surgeon within seven days preceding or following the date of their first employment in the factory in such process; thereafter all persons employed in any process included in sub-clauses (i) and (xiv) of clause 3 shall be examined by the Certifying Surgeon once in every three calendar months and those employed in any process included in sub-clauses (ii) to (xiii) and (xvi) of clause 3 once in every 12 months by the Certifying Surgeon. Records of such examinations shall be entered by the Certifying Surgeon in the Health Register.

(1A) X'ray examination of the chest of every worker employed in any process specified in sub-clauses (ii) to (xiii) and (xv) and (xvi) of clause 3 shall be carried out: -

- (i) if he is already in employment the date on which this rule comes into force, within six months of the said date, and at an interval of every three years thereafter; and
- (ii) if he is employed after the date on which this rules comes into force, within six months of the said date, and at an interval of every three years thereafter.

The result of every X'ray examination along with the X'ray plate shall be produced before the Certifying Surgeon within a month of the said examination.

(IB) Without any prejudice to the provision of sub-clause (IA) if the Certifying Surgeon during the course of the medical examination of any worker has any reason to suspect that the said worker had any reason to suspect that the said worker had been affected or was being affected by any chest diseases he may direct the manager or the occupier in writing to get the said workers X'rayed and to produce the result of the X'ray examination along with X'ray plate within a specified time.

(IC) If as a result of the general medical examination or of the X'ray examination, the Certifying Surgeon is of the opinion that any special or expert clinical or pathological or any other special examination or test is necessary to diagnose or to determine whether or not the worker had been affected or was being affected by any diseases arising out of his occupation or to protect the health of the worker, he may direct the manager or the occupier in writing to get any such examination or test carried out and to produce the report and the result thereof within a specified time.

It shall be the duty or the manager of the occupier as the case may be to carry out the direction given by the Certifying Surgeon under sub-clause (IB) and (IC)

(2). If at any time the Certifying Surgeon is of opinion that any person employed in any process specified in clause 3 is no longer fit for employment on the ground that continuance would involve damage to his health, he shall make an entry to that effect in the Health Register.

(3) Any person who has been declared unfit by the Certifying Surgeon at any time shall not be re-employed without written sanction from the Certifying Surgeon and entered in the Health Register.

(4) A worker declared unfit by the Certifying Surgeon may be employed only in such other process or works as may be specified by the Certifying Surgeon.

12. (1) The occupier shall provide and maintain suitable overalls and head coverings for all persons employed in processes included under clause 3.

(2) The occupier shall provide and maintain suitable aprons of water-proof or similar materials, which can be sponged daily, for the use of the dipper, dipper's assistants, throwers, jolly workers casters, mould makers and filter press and pug mill workers.

(3) 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 blungers without wearing a suitable and efficient dust respirator which shall be supplied by the occupier.

13. Before each meal and before the end of the day's work at least ten minutes, in addition to the regular rest interval for meals, shall be allowed for washing to each person employed in any of the processes included under clause (3)

14. No food, drink, 'pan' and 'supari', or tobacco shall be brought into, or consumed by any worker in any work-place in which any of the processes included under clause 3 are carried on and no person shall remain in any such work-place during intervals for meals or rest.

15. There shall be provided and maintained for the use of all persons employed in any of the processes included under clause 3 –

(a) a clock-room for clothing put off during working hours, it shall be outside any room in which is carried on any of the processes included under clause 3, and shall be enclosed from the general air of any such room.

(b) separate and suitable arrangements for accommodation of protective clothing and equipment provided under clause 12.

16. Every drying stove, dryer and mangle shall be so ventilated that there is no flow of hot air from the stove, dryer or mangle into any place where any person works, the drying of pottery articles shall be carried out in rooms set apart for that purpose.

17. In all potter's shops and in all drying stoves which are entered by work people, boxes shall be provided for the reception of clay scraps and broken ware.

18. *Washing facilities.*—The occupier shall provide and maintain, in a cleanly state and in good repair, for the use of all persons employed in any of the processes specified in clause 3 a wash place under cover; with either: -

(a) (i) a trough with smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow at least two feet for every five such persons employed at any one time and having a constant supply of clean water from taps or jets above the trough at intervals of not more than two feet; or

(ii) at least one tap or stand pipe for every five such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 4 feet apart; and

(b) a sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brush and soap.

19. *Mess-room.*-(1) There shall be provided and maintained for use of all persons remaining within the premises during the rest intervals, a suitable mess-room providing accommodation of 10 square feet per head furnished with.-

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

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

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

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

(2) The occupier shall provide and maintain suitable aprons of a water proof or similar material, which can be sponged daily, for the use of the dippers, assistants, throwers, jolly workers, casters, mound makers and filter press and pug mill workers.

(3) Aprons provided in pursuance of clause 11 (2) shall be thoroughly cleaned daily by the weavers by sponging or other wet process. All overalls and head covering shall be washed, cleaned and mended at least once a week and this washing, cleaning or mending shall be provided for by the occupier.

(4) No person shall be allowed to work in emptying specks of dusty materials, weighing out and mixing of dusty materials and charging of ball mills and blungers without wearing a suitable and efficient dust respirator.

### **Sub-Schedule-13**

#### **Compression of Oxygen And Hydrogen**

1. The room in which electrolyser plant is installed shall be separate from the plant for storing and compressing of oxygen and Hydrogen and also from the electric generator room.

2. The purity of Oxygen and Hydrogen shall be tested by a competent person at hourly intervals at the following points:-

- (i) In the electrolyser room,
- (ii) At the gas-holder in let, and
- (iii) At the section end of the compressor.

The figures relating to the degree of purity as obtained from the test carried out shall be recorded systematically in a register or a log book maintained only for this purpose and shall be signed by the person carrying out the test:

Provided, however, that if the electrolyser plant is fitted with an automatic device for recording the purity of the gases along with visual warning signals, it shall be sufficient if the purity of the gases is tested at hourly intervals at the suction and of the compressor only.

3. The Oxygen and Hydrogen gases shall not be compressed if their purity determined by the that carried out under clause 2 falls below 98 per cent at any time.

4. Effective negative pressure switch shall be provided adjacent to the suction main close to the gas-holder and between the gas-holder and the hydrogen compressor in such manner that the compressor is automatically stopped at a predetermined safe pressure in the gas-holder.

The negative pressure switch provided shall be tested and examined for its effective working once every shift by a competent person and records of all such examinations shall be maintained in a register signed by the Manager of the factory.

5. The bell of any gas-holder shall be permitted to go within 30 cms. (12 inches) of its lowest position when empty and a limit switch shall be provided for this purpose in the gas-holder with adequate alarm indicators both visible and audible to indicate that the gas-holder has reached the limit.

6. The water and caustic soda used for making lye shall be chemically pure within pharmaceutical limit.

7. Electrical connections at the electrolyser cells and at the electric generator terminals shall be so constructed as to preclude any possibility of any wrong connection, leading to reversal of polarity, and in addition an automatic device shall be provided to cut off power in the event of reversal of polarity owing to wrong connection either at the switch board or at the electric generator terminal.

8. Oxygen and Hydrogen gas pipes shall be painted with distinct colours so that they may be clearly and easily distinguished and in the event of any leakage at any Joint of the Hydrogen gas pipe, the pipe after reconnection shall be completely purged of air before drawing in Hydrogen gas.

9. All electrical apparatus, equipments and appliances including wirings, machines, switch-gears, light points, switches, plugs, sockets, etc., in the electrolyser room shall be of flame proof construction or enclosed in flame-proof fittings and no naked light or flame shall be allowed to be taken in or near the electrolyse, room or where compression and filling of any gas is carried on, and warning notices to such effect shall be displayed at prominent places.

10. No part of the electrolyser plant and the gas holder and compressor shall be subjected to welding, brazing, soldering or cutting until all explosive substances have been completely removed from that part so as to render the part safe for such operation and after the completion of such operation no explosive substance shall be allowed to enter that part until the metal has cooled sufficiently to eliminate any risk of explosion.

11. (a) All sources of starting an ignition or of producing a spark whether electrical or otherwise shall be eliminated from such parts of the plant or factory where there may be any risk of explosion.

(b) In all such parts of the factory or plant, shoes with nails, belts or synthetic clothes, likely to generate spark due to friction or discharge of static electricity (unstatic electricity to earth continuously) or use of tools likely to produce a spark shall not be allowed, and all such plants, parts or machines whereon static electricity may build up shall be solidly and effectively earthed.

12. No person shall be permitted to enter any place or area where there is risk of explosion, while carrying a match box or a lighter, and arrangement shall be made to collect all such articles outside before the person enters any such place or area.

13. No work of operation, repair or maintenance shall be undertaken except under the direct supervision of a person who by his training and experience possesses the knowledge of the necessary

precautions against risk of explosion and is competent to supervise such work. An electric generator connected to an electrolyser after election or repairs shall not be switched on unless the same is certified by the competent person under whose direct supervision election or repairs are carried on, to be safe, and the terminals have been checked for the polarity as required under clause 7.

14. Every part of an electrolyser plant, gas holder and compressor shall be checked and overhanded at suitable intervals regularly and every defect noticed shall be rectified forthwith.

15. Detailed instructions with regard to the operation of the plant, precautions to be taken, and the steps to be taken in case of an emergency, shall be prepared and displayed at prominent places close to the plant.

16. A register or a log book in convenient form shall be maintained in which all operations carried out in such factories and plants shall be regularly recorded and signed by the person incharge of the plant carrying out the operation as well as by the person.

17. There shall be at least two gas holders for each kind of gas and the gas holders for same gas shall not be fitted with inter-locked valves or levers and three way cocks at the junction of their outlets in such a way that no gas holder is connected to the compressor and to the electrolyser at the same time, and only one gas holder is connected to the compressor, line at any one time.

#### **Sub-Schedule -14**

#### **Cleaning for 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.**

#### *(Blasting Regulations)*

1. *Definitions.*-For the purposes of this schedule "Blasting" means cleaning, smoothing, roughening or removing of any part of the surface of any article by the use as an abrasive of a jet of sand, metal shot, or grit or other material, propelled by a blast of compressed air or steam.

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

"Blasting chamber" means a blasting enclosure in which any person may enter at any time in connection with any work or otherwise.

"Cleaning of castings" where done as an incidental or supplemental process in connection with the making of metal castings, means the freeing of the casting from adherent sand or other substance and include the removal of cores and the general smoothing of a casting but does not include the freeing of castings from scales formed during annealing or heat-treatment.

2. *Prohibition of sand blasting.*- Sand or any other substance containing free silica shall not be introduced as an abrasive into any blasting apparatus and shall not be used for blasting:

Provided that this clause shall come into force two years after coming into operation of this schedule.

3. *Prohibition of employment of women and young persons.* - No women or young person shall be employed or permitted to work at any operation of sand blasting.

4. *Precautions in connection with blasting operations:* -

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

(2) *Maintenance of blasting enclosure.* - Blasting enclosure shall always be maintained in good condition and effective measure shall be taken to prevent dust escaping from such enclosures, and from apparatus connected therewith, into the air of any room.

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

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

(4) *Provision of ventilating plant.* - There shall be provided and maintained in connection with every blasting enclosure efficient ventilating plant to extract by exhaust draught effected by mechanical means dust produced in the enclosure. The dust extracted and removed shall be disposed of by such method and in such manner that it shall not escape into the air of any room and every bag used for the settling of dust and every other filtering or setting device situated in a room in which persons are employed, other than persons attending to such bag or other filtering or setting device, shall be completely separated from the general air of that room in an enclosure ventilated to the open air.

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

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

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

6. *Provision of protective helmets, gauntlets and overalls.*- (1) There shall be provided and maintained for the use of all persons who are employed in a blasting chamber whether in blasting or in

any work connected therewith or in cleaning such a chamber, protective helmets of type approved by a certificate of the Chief Inspector, and every such person shall wear the helmet provided for this use whilst he is in the chamber and shall not remove it until he is outside the chamber.

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

(3) Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate of not less than six cubic feet per minute.

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

7. *Precaution in connection with cleaning and other work.* – (1) Where any person is engaged upon clearing of any blasting enclosure or of any apparatus or ventilating plant connected therewith or the surrounding thereof or upon any other work in connection any blasting apparatus or blasting enclosure or with any apparatus or ventilating plant connected therewith so that he is exposed to the risk of inhaling dust which has arisen from blasting all practicable measures shall be taken to prevent such inhalation.

(2) In connection with any cleaning operation referred to in clause 5, and with the removal of dust from filtering or settling devices all practicable measures shall be taken to dispose of the dust in such a manner that it does not enter the air of any room. Vacuum cleaners shall be provided and used wherever practicable for such cleaning operations.

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

9. *Maintenance and cleaning of protective wear.*-All helmets, gauntlets, overalls and other protective devices or clothing provided and worn for the purposes of this schedule shall be kept in good condition and so far as is 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, whenever practicable, be used for removing dust from such clothing and compressed air shall not be used for removing dust from any clothing.

10. *Maintenance of vacuum cleaning plant.*-Vacuum cleaning plant used for the purpose of this schedule shall be properly maintained.

11. *Restrictions in employment of young persons.*-(1) No person under 18 years of age shall be employed in blasting or assisting at blasting or in any blasting chamber or in the cleaning of any blasting apparatus or any blasting enclosure or any apparatus or ventilating plant connected therewith or be employed on maintenance or repair work at such apparatus, enclosure or plant.

(2) No person under 18 years of age shall be employed in work regularly within twenty feet of any blasting enclosure unless the enclosure is in a room and he is outside that room where he is effectively separated from any dust coming from the enclosure.

12. *Power to exempt or relax.*-(1) If the Chief Inspector is satisfied that in any factory or any class of factory, the use of sand or other substance containing free silica as an abrasive in blasting is necessary for a particular manufacture or process (other than the process incidental or supplemental to making of metal castings) and that the manufacture or process cannot be carried on without the use of such abrasive or that owing to the special condition 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 person impracticable or inappropriate, he may, with the previous sanction of the State Government, by an order in writing exempt the said factory or class of factory from such provisions of this schedule, to such an extent and subject to such conditions and for such period as may be specified in the said order.

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

### **Sub-Schedule-15**

#### **Handling and Processing of Asbestos, Manufacture of any Article of Asbestos and any other Process of Manufacture or otherwise in which Asbestos is used in any Form**

1. *Application.*-This schedule shall apply to factories in which any of the following processes is carried on:-

- (i) Breaking, crushing, disintegrating, opening, grinding, mixing or sieving of asbestos and any other processes involving handling and manipulation of asbestos incidental thereto;
- (ii) All processes in the manufacture of asbestos textiles including preparatory and finishing processes;
- (iii) making of insulation slabs or section, composed wholly or partly of asbestos, and processes incidental thereto;
- (iv) making or repairing of insulating mattresses, composed wholly or partly of asbestos, and processes incidental thereto;
- (v) manufacture of asbestos card-board and paper;
- (vi) manufacture of asbestos cement products;
- (vii) application of asbestos by spray method;
- (viii) sawing, grinding, turning, abrading and polishing, in the dry state of articles composed wholly or partly of asbestos;
- (ix) cleaning of any room, vessel, chambers, fixture or appliances for the collection or removal of asbestos dust:

Provided that if the Chief Inspector is satisfied that in respect of any factory or workshop or part thereof, by reason of the restricted use of asbestos or the method of working, of occasional nature of work, or otherwise, all or any of the provisions of this schedule, can be suspended or relaxed without danger to the health of the persons employed therein, he may by an order in writing grant suspension or relaxation subject to such conditions or for such period as he may think fit. Any such order may be revoked at any time.

2. *Definition.*-For the purpose of this Schedule: -

- (i) "asbestos" means any fibrous silicate mineral, and any admixture containing any such mineral, whether crude, crushed or opened;
- (ii) "asbestos textiles" means yarn or cloth composed of asbestos or asbestos mixed with any other material;
- (iii) "preparing" means crushing, disintegrating, and any other process in or incidental to the opening of asbestos;
- (iv) "approved" means approved for the time being in writing by the Chief Inspector;
- (v) "breathing apparatus" means a helmet or face piece with necessary connection by means of which a person using it breathes air free from dust, or any other approved apparatus.

3. An exhaust draught effected by mechanical mean which prevents the escape of asbestos dust into the air or any room in which persons work, shall be provided and maintained for –

- (a) manufacturing and conveying machinery, namely: -
  - (i) preparing, grinding or dry mixing machines;
  - (ii) carding, card-waste-end ring spinning, machines, and looms;
  - (iii) machines or other plant fed with asbestos;
  - (iv) machines used for the sawing, grinding turning abrading or polishing, in the dry state, of articles composed wholly or partly of asbestos.
- (b) cleaning and grinding of the cylinders or other part of a carding machine.
- (c) chambers, hoppers or other structures into which loose asbestos is delivered or passes.
- (d) work benches for asbestos waste sorting or for other manipulation of asbestos by hand.
- (e) work places at which the filling and emptying of sacks, skips or other portable containers, weighing or other process incidental thereto which is effected by hand, is carried on.
- (f) sack-cleaning machines.

Provided that his clause shall not apply-(i) to a machine or other plant which does not give rise to asbestos dust or is so enclosed as to prevent escape of asbestos dust into the air of any room in which persons work, or (ii) where the asbestos is so wet or so treated with grease or other materials as to prevent the evaluation of dust, or (iii) to the making or repairing of insulating mattresses, or (iv) to mixing or blending by hand of asbestos.

(1) Mixing or blending by hand of asbestos shall not be carried on except with an exhaust draught effected by mechanical means so designed and maintained as to ensure as far as practicable the suppression of dust during the processes.

(2) In premises which are constructed or reconstructed after this schedule comes in to force, the mixing or blending by hand of asbestos shall not be done except in a special room or place in which no other work is ordinarily carried on.

(3) (a) The making or repairing of insulating mattresses composed wholly or partly of asbestos shall not be carried on in any room in which any other work is done.

(b) In every room in which the making or repairing of insulating mattresses is carried on: - (i) adequate exhaust and in lost ventilation in accordance with arrangements to be approved in each case shall be provided and maintained;

(ii) on person other than those engaged in filling, beating or levelling shall be present whilst such processes are being carried on and work shall not be resumed in the room after filling, beating or levelling for at least ten minutes;

(iii) the floors and benches shall be kept damped so as to effectively prevent dust arising therefrom;

(iv) The covers shall be effectively damped immediately after being cut out and in the case of fibre filled mattresses, shall be kept damp whilst filling, beating or levelling is being carried on.

(4) (a) Storage chambers or bins for loose asbestos shall in the case of premises constructed or reconstructed after this schedule comes into force, be effectively separated from any work room and in the case other premises be effectively separated from any work room in which the asbestos is not required for the purposes carried on in the room.

(b) Chambers or apparatus for dust setting and filtering shall not be allowed in any work room.

(c) Effective arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air any work room.

(5) All machinery used in preparing, grinding of asbestos carding card roller cleaning and grinding, and sack cleaning and all card waste-end machines latrines, elevators, chutes, and conveyers shall be so constructed and maintained that dust or debris containing asbestos cannot escape from any part thereof, other than dust removed by air exhaust draught provided in accordance with clause 3 of the Schedule.

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

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

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

5. (1) In every room in which any of the requirements of this Schedule apply: -

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

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

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

6. (a) A sack which has contained asbestos shall not be cleaned by hand beating but by a machine, complying with clause 3 and sub-clause (5) of clause 4.

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

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

(b) A register containing particulars of such examination and test and the state of the plant and the repairs or alterations (if any) found to be necessary shall be kept, and shall be available for inspection by an Inspector.

8. A breathing apparatus shall be provided for every employee: -

(a) In chamber containing loose asbestos;

(b) In cleaning dust setting or filtering chambers or apparatus;

(c) In cleaning the cylinders, including the deffer cylinders, or other part of the carding machine by means of hand-strickless; and

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

9. There shall be provided and maintained for the use of all persons employed in the cleaning of dust setting and filtering chambers, tunnels and dusts, suitable overalls and head coverings.

10. No young person shall be employed in or in connection with the manufacture of insulating mattresses, in mixing or blending of asbestos by hand, in sack cleaning, in chambers, or apparatus for dust setting or filtering; in chambers containing loose asbestos, or in stripping or grinding the cylinders including the deffer cylinders or other part of a carding machine.

11. *Medical examination.*-(a) No worker shall be employed in any factory on any of the processes specified in clause I, unless he has been medically and radiologically examined and has been declared fit and has been granted a certificate of fitness in **Form no. XIX**.

(b) Every worker employed on any of the aforesaid processes on the date on which the schedule comes into force shall be medically and radiologically examined within three months of the said date.

(c) Every worker employed on any of the aforesaid processes shall be medically examined at intervals of six months after the first medical examination conducted under sub-clauses (a) and (b) and radiologically at intervals of 3 years after the first radiological examination conducted under sub-clauses (a) and (b).

(d) A worker already in employment and declared unfit by the Certifying Surgeon shall not be allowed to work on any of the processes specified in clause I, unless he has been examined again and has been certified to be cured and fit to work on the said process again.

(e) A worker declared to be unfit to work on any of the aforesaid processes, may be employed on such other work or process as may be considered safe and as may be advised by the Certifying Surgeon:

Provided that if the Certifying Surgeon declares that a worker has been completely incapacitated and he was not fit to be employed on any process, such worker shall not be allowed to continue to work on any work or process.

(f) The Certifying Surgeon may direct that a worker may be X-Rayed or he may be subject to further examination by a specialist or to any other examination, clinical, pathological or otherwise or that he should undergo a specified treatment, and it shall be the responsibility of the employer (Occupier and the Manager) to arrange for the specified examination and/or treatment and to bear all expenses thereof or in connection therewith:

Provided that in factories in which the Employees State Insurance Schemes is in Operation, the Certifying Surgeon shall refer the case of insured workers to the Medical Officer Incharge of the Employees State Insurance Dispensary with his findings and recommendation.

(g) The Certifying Surgeon shall after such examination grant a certificate in **Form no.XIX**

(h) The Manager shall maintain all the certificates before an Inspector whenever demanded.

(i) The Manager shall maintain the details of every medical examination in **Form no.XX** and the register shall be produced before an Inspector whenever demanded.

(j) The term "medical examination whenever used in this clause means "Medical Examination carried out by the Certifying Surgeon."

(k) It shall be the responsibility of the Employer (Manager and Occupier) to get the workers medically and radiologically examined and to bear the cost of such examinations.

(i) Reports of radiological (X-Ray) examination along with the X-Ray plate shall be produced before the Certifying Surgeon within 15 days of the examination, for his examination, advice and such action as he may consider necessary.

### **Sub-Schedule-16**

#### **Handling and manipulation of corrosive substances.**

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

(a) "*Corrosive operation*" means an operation of manufacturing, storing handling, processing, packing, or using any corrosive substance in a factory

(b) "*Corrosive substance*" includes sulphuric acid, nitric acid hydrochloric acid, hydrofluoric acid, carbolic acid, phosphoric acid, liquid chlorine, liquid bromine, ammonia, sodium hydroxide and potassium hydroxide and a mixture thereof and any other substance which the State Government by notification in the *Official Gazette* specify to be a corrosive substance.

2. Flooring. - The floor of every work-room 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 to often as necessary and maintained in 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 equipments shall be maintained in good order and shall be kept in clean and hygienic condition by suitable 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 person employed in any corrosive operation.

4. Water facilities. - Where any corrosive operation is carried on, there shall be provided as the close to the place of such operation as possible, a source of cleanwater at a height of 2.1 meters. from a pipe of 1.25 cm. diameter and fitted with a quick acting valve so that in case of injury to the worker by any corrosive substance, the injured part can be thoroughly flooded with water, Wherever 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 of Factories, shall be provided as the source of clean water.

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

### **Cautionary Notice**

#### **Danger**

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

6. Transport. - (a) Corrosive substances shall not be filled moved, or carried except in containers and when they are to be transported, they shall be included in crates of sound construction and sufficient strength.

(b) A container with a capacity of (11.5 litres) (2½ gallons) or more of a corrosive substances shall be placed in a receptacles or crate and then carried by more than one person, at a height below the waist line unless a suitable rubber wheeled truck is used for the purpose.

(c) Containers for corrosive substances shall be plainly labeled.

7. Devices for handling Corrosives. - (a) Suitable tiling or lifting device shall be used for emptying jars, carboys and other containers of corrosives.

(b) Corrosive substance shall not be handled by hands but by means of a suitable scoop or other devices.

8. Opening 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 chamber used for holding any corrosive substance, 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 precautions shall be taken to ensure the workers' 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 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 capacity of twenty liters or more and every pipe line, valves and fitting used for storing or carrying corrosive substances shall be thoroughly examined every year for finding out any defects, and defects shall be removed forthwith. A register shall be maintained of every such examination made and shall be produced before the Inspector whenever required.

11. Fire extinguishers and fire fighting equipment. - An adequate number of suitable type of fire extinguishers or other fire fighting equipment, depending on the nature of chemicals stored, shall be provided. Such extinguishers or other equipment shall be regularly tested and refilled. Clear instructions as to how the extinguishers or other 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. Medical Examination-(1) Every worker employed in the process of this schedule shall be examined by a medical officer. He shall issue fitness on **Form no.XIX**.

(2) 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 shall make a record of his findings in the said certificate and the health register on **Form no.XX**. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the said process. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the medical officer, in that case the person affected shall be suitably rehabilitated.

(3) No person who has been found unfit to work as said in sub-paragraph (6) 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.

(4) The record of the examinations shall be maintained and kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

13. 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 their frequency of the process or for any other reason to be recorded by him in writing, all or any of the provisions of this Schedule are not necessary for the protection of the persons employed therein, he may by a certificate in writing, which he may at any time revoke, exempt the factory from such of the provisions and subject to such conditions as he may specify therein.

**Sub-Schedule-17****Manufacture of Articles from Refractory Materials.**

1. *Application.*-This Schedule shall apply to the following processes:-

(1) handling, moving, breaking, crushing, grinding or sieving of any refractory materials, containing not less than 25 per cent total silica for the purpose of manufacture.-

- (a) of articles used in the construction of furnaces and flues;
  - (b) of crucibles; and
  - (c) of compositions or other materials used in the preparation of moulds in which metals are cast; or
- (2) any process in the manufacture of refractory bricks as hereinafter defined:-

Provided that nothing in this Schedule shall apply-

- (a) to handling, moving, mixing or sieving of natural sand; or
- (b) to the manipulation of rotten rock in the preparation of moulds used in metal foundries:

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

2. *Definitions.*- (a) "Refractory material" means any refractory material containing not less than 25 per cent total silica.

(b) "Refractory brick" means any brick or article composed of refractory material and containing not less than 25 per cent total silica.

(c) "Efficient exhaust draught" means localised ventilation by mechanical means for the removal of dust so as to prevent dust 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 the dust produced at the point where such dust originates.

3. No refractory material shall be broken in pieces by manual labour unless the process is carried out in the open air:

Provided that where it is not practicable to carry out this process in open air, the process shall be carried out under an efficient exhaust draught

4. No refractory material unless it is so wet that dust will not be produced, shall be crushed or ground in a stone crushing or a grinding machine unless such machine is provided with -

- (a) an efficient exhaust draught and efficient dust collecting appliances; or
- (b) an efficient water or steam spray:

Provided that every grinding machine wherein any refractory material is ground in dry state, shall be, totally enclosed and connected to a mechanical exhaust system so as to prevent effectively and escape of dust outside the casting of the machine by maintaining a pressure below the atmospheric pressure within the casting of the machine:

Provided further that all processes of crushing and grinding shall be effectively isolated from other processes.

5. All chutes, conveyors, elevators, screens, sieves and mixers used for manipulating refractory material shall, unless that material is so wet that dust will not be produced, be enclosed and be provided with efficient exhaust draught:

6. No refractory material so dry as to produce dust shall –

(a) be loaded into any wagon or other receptacle for transport unless it has been placed in a suitable dust-proof container so dumped as to preclude dust; or

(b) be unloaded from any wagon or other receptacle for transport unless it has been so damped as to preclude dust or unless the work is done under an efficient exhaust draught;

(c) be shovelled or raked or otherwise manipulated by means of hand tools in any manufacturing process unless it has been so damped as to preclude dust or unless the work is done under an efficient exhaust draught:

Provided that paragraph (b) of this rule shall not apply to refractory material in the form of rock or pebbles before it is manipulated in any manufacturing process.

7. (a) The floors of all places where refractory bricks are dried, other than the floors of tunnel ovens or chamber driers not normally entered by person employed shall after each lot of refractory bricks has been removed, be carefully cleaned of all debris and the part being cleaned shall be kept damp while the cleaning is being done.

(b) There shall be provided in every such place a constant supply of water laid on under adequate pressure with sufficient connections and a flexible branch pipe and sprinkler to enable water to be supplied directly part of the floor.

8. No drying stoves in which refractory bricks are baked by fires before being placed in the kilns shall be used.

9. The surface of every floor or place where persons are liable to pass shall be cleaned of debris of refractory material once at least during each daily period of employment or where shifts are worked, once during each shift. Such debris unless it is immediately required for use in the process shall be effectively damped and either be placed in covered receptacles, or be otherwise stored in such manner as to prevent the escape of dust into the air in or near to any place where any person is employed.

10. Where plates are used, whether portable or forming part of the floor, on which refractory bricks are dried, such plates shall freed from adherent material only by a wet method or by such other method as will prevent the escape of dust into the air.

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

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

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

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

13. *Medical examination.*-(a) Every worker employed on any of the processes specified in sub-paragraphs (1) and (2) of paragraph 1 shall be medically examined in such manner and at such

intervals as may be specified by any rules made under the Workmen's Compensation Act, 1923 (VIII of 1923) or if no such rules have been framed under the said Act, every such worker shall be medically examined by the Certifying Surgeon before employment on any of the aforesaid processes and at intervals not exceeding six months thereafter.

(b) Subject to sub-paragraph (c), an X'ray examination of the chest of every worker referred to in sub-paragraph (a) shall be carried out –

(i) if he is already in employment on the date of coming into force of the sub-paragraph, within six months of such date and at an interval of every three years thereafter;

(ii) if he is employed after such date within one month of the date of his employment and at an interval of every three years thereafter;

and the result of every such X'ray examination shall be produced before the Certifying Surgeon within a month of the examination.

(c) If the Certifying Surgeon, during the course of medical examination of any worker under sub-paragraph (a), has reason to suspect onset of any chest disease, he may direct the manager or the occupier to get an X'ray examination of the worker done and to produce the X'ray plate before him within a specified time and on receipt of such direction the manager or the occupier, as the case may be, shall carry out the direction.

(d) The Certifying Surgeon shall grant to each worker examined a certificate specifying therein whether or not the worker was considered fit to be employed on any of the aforesaid processes.

(e) The manager shall maintain a register in which the findings and recommendations of the Certifying Surgeon in respect of every worker and in respect of every medical examination shall be maintained duly signed by the Certifying Surgeon.

(f) A worker not declared fit shall not be employed on any of the aforesaid processes and he shall be employed on only such other process or he shall be subjected to such other examination or treatment as may be directed by the Certifying Surgeon.

(g) No fees shall be charged from any worker for the medical examination and it shall be responsibility of the occupier and the manager to comply with the provisions of this Schedule.

14. In case any existing plants or machinery needs alteration, modification or replacement or in case of any new plant is required to be installed, to comply with the requirements of this Schedule, such alteration, modification, replacement or installation of the plant or machinery shall be carried on within a period not exceeding one year from the date of publication of this rule:

Provided that the Chief Inspector of Factories in consideration of special and exceptional circumstances by an order in writing may extend this period for such reasonable length of time as he may think fit.

### **Sub-Schedule-18**

#### **Solvent Extraction Plants**

1. *Definition.*-(a) "Solvent Extraction Plant" means any plant in which the process of extracting of oil or any other substance from oil-cake, rice bran or any other articles or substances by the use of any

solvent is carried on and the word 'Plant' wheresoever used in these rules, unless otherwise specified shall be deemed to mean solvent extraction plant.

(b) "Solvent" means an inflammable liquid having flash point below 120 degree F.

(c) "Flame-proof" enclosure as applied to electrical machinery or apparatus means an enclosure that will withstand, when covers or other access doors are properly secured, the pressure of any internal explosion of any inflammable gas or vapour which may enter or which may originate inside the enclosure without suffering any damage and without any allowing internal inflammable or product of explosion to the external atmosphere.

(d) "Competent Person" means a person having a degree or equivalent diploma in Mechanical or Chemical Engineering or in Chemistry with at least 5 years experience in a chemical plant or any other person who by virtue of his other qualification and experience is considered by the Chief Inspector to be a competent person for this purpose;

Provided that no person would be deemed to be a competent person who has not obtained a certificate of competency from the Chief Inspector.

2. *Location and Lay-out.* – (a) No solvent extraction plant shall be permitted to be constructed or extended to within a distance of 30 meters from the nearest residential or office building.

(b) An adequate and continuous wire fencing at a height of at least 15 meters from the ground shall be provided around the solvent extraction plant at a minimum distance of 15 metres from any point of the buildings of the plant.

(c) No person shall be allowed to carry any match, cigarette lighter or any other similar device or any device whereby flame or fire can be generated. Any open flame or fire inside the area bound by fencing.

(d) Boiler houses and other buildings where any process involving open flame or fire is carried on shall be located at least 30 metres away from the plant.

(e) If any godown or any preparatory process is at a distance of less than 30 meters from the plant, and a continuous barrier wall of non-combustible material, at least 1.5 metres high shall be erected at a distance of not less than 15 meters from the plant.

3. *Electrical Installations.*-(a) An electrical motors, wirings, fittings. switches, switch gears and other electrical apparatus, installed or housed in or close to any solvent extraction plant, shall be of flame proof constructions, approved and certified by the Central Research Mining Station, Dhanbad, or by any other competent authority approved in writing by the Chief Inspector.

*Note.*-These rules shall be in addition to Schedule XI - Chemical Works- Rule 46 of the Jharkhand Occupational Safety, Health and Working Condition Rule 2021 or any other relevant provision of the Occupational Safety, Health and Working Condition Code 2020 and the said rules and shall be not in derogation of any of them.

(b) All metal parts of the plant and buildings, including pipes, tanks and containers where solvent is stored or is present and all parts of electrical equipment not required to be energised shall be properly bounded together and connected to effectively earth as to avoid accidental rise in the electrical potential of such parts above the earths potential and the earth connection shall at all times be maintained in an effective condition.

4. *Restriction on Smoking.*-Smoking shall be strictly prohibited within 15 metres distance from the plant. For this purpose "No Smoking" signs shall be boldly and permanently displayed and maintained in the area in such manner that it is clearly visible by day and by night.

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

(b) No machinery or equipment in solvent extraction plant shall be belt driven.

(c) No person shall be allowed to enter and work in the solvent extraction plant if wearing clothes made of Nylon or such other synthetic fibre that can static electrical charge, or wearing foot-wear which is likely to cause sparks by friction:

Devices shall be provided wherever necessary in every room of the plant for effectively discharging of body static electricity likely to be generated for wearing apparel and equipment.

6. *Fire-Fighting Apparatus.*- (a) Adequate number of portable fire extinguishers suitable for use against flammable liquid fire shall be provided in the solvent extraction plant.

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

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

8. *Magnetic separators.* -Raw materials for use in a Solvent Extraction Plant shall be fed to the extractor by a conveyer through a hopper, and an efficient magnetic separator shall be provided to remove any trace of iron from the raw materials and interlocking device shall be provided which shall stop feeding of raw materials if magnetic separator is not working.

9. *Venting.*- (a) Tanks containing solvent shall be provided with emergency vent to relieve excessive internal pressure in the event of fire.

(b) All emergency relief vents shall terminate at least 6 metres above the ground and be so located that vapours or substances vented out may not under any, circumstance so re-enter the building in which solvent extraction plant is located or in any other building.

10. *Ventilation.*-The building or shed housing the solvent extraction plant shall be well ventilated and if required the building shall be provided with mechanical ventilation with provision for at least six air changes per hour.

11. *Waste water.*- Process waste water shall be passed through flash evaporate to remove last traces of solvent before it is discharged into a sump.

12. (a) Solvent shall not be stored in an area covered by solvent extraction plant except in small quantities which shall be stored in labelled safety cans.

(b) Waste materials such as oily rags, other wastes and absorbants used to wipe of solvent and paints and oils shall be deposited in containers approved by the Inspector and removed from the premises at least once a day.

(c) Space within the solvent extraction plant and within 15 metres from the plant shall be kept free from any combustible material, and any spill of oil or solvent shall be cleaned up immediately.

13. *Examination and Repairs.*- (a) The solvent extraction plant shall be examined by a competent person to determine any weakness or corrosion or wear once in every 12 months. Report of such examination shall, be sent to the Inspector 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) Suitable facility shall be provided for <sup>1</sup>[purging] the plant with inert gas <sup>2</sup>[on steam] before opening for cleaning or repairs and before introducing solvent after repairs.

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

15. *Employment for women and young persons.*- No women or young person shall be employed in any solvent extraction plant.

16. *Vapour Detention.*-(a) A suitable type of combustible gas indicator shall be provided and maintained in good working order and a schedule of routine sampling of atmosphere at various locations as approved by the Chief Inspector shall be drawn out and entered in a register maintained for the purpose.

(b) When any solvent is removed from any batch extractor by vacuum, gauges shall be provided and tests shall be carried out to ensure that a minimum vacuum of 620 mm. (26"-0) mercury is obtained and maintained steadily for a minimum period of 30 minutes before the extractor is allowed to be opened for discharge of coke or for persons to enter or for any other purpose.

17. (a) When on opening the door of a batch extractor the extracted meal cannot be dislodged from the extractor freely, the door shall be closed and the material reheated adequately before the door is reopened;

Provided that if even after adequate reheating, tools must be used for the removal of the extracted meal only non-sparking tools shall be used.

(b) Where solvent is removed by steam heating the presence of the solvent shall be tested at the vent provided on the top of the vessel before opening the vessel.

(c) A log book of operations giving the following details and informations shall be maintained and made available on demand to the Inspector:

(i) Vacuum gauge reading for each charge.

(ii) Testing of continuity of electrical bonding and earthing system.

(iii) Loss of solvent every 24 hours or loss per ton of materials used:

Provided further that the Chief Inspector may require such further information to be maintained in the log-book as he may consider necessary.

18.(a) An emergency action plans shall be prepared and all personnel shall be properly trained.

Training should be followed by periodic emergency action drills.

(b) Emergency instructions shall be boldly displayed at suitable places in the language understood by the majority of workers.

19. (a) All persons employed in the plant shall be made fully aware of the toxic properties of the solvent being used, stored and handled.

(b) All persons exposed to any toxic solvent shall be medically examined by the Certifying Surgeon once in six months and at more frequent intervals by the Medical Officer of the factory:

Provided that the Chief Inspector may reduce the period of six months in case he considers that more frequent examination of the health of the workers is necessary to secure their health and safety.

### **Sub-Schedule-19**

#### **Carbon Disulphide Plants**

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. These Rules are in addition to and not in derogation of any of the provisions of the Act and Rules made thereunder.

2. *Construction, Installation and Operations.* - (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 open type to ensure optimum ventilation and the plant layout shall be such that only a minimum number of workers are exposed to the risk of any fire or explosion at any one time:

(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 maintained in good order 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 grounded about 60 centimeter in concrete or by other effective means.

(d) Every electric furnace shall be installed and operated according to manufacturer's instructions and these instructions shall be clearly imparted to the personnel incharge of construction and operation.

(e) The instructions regarding observations of correct furnace temperature sulphur doze, admissible current/power consumption and periodical checking of charcoal level shall be strictly complied with. These instructions shall be exhibited at conspicuous place near the furnace.

3. *Electrodes.* - (a) Where upper ring electrode(s) or straight electrodes made of steel are used in the electric furnace, they shall be of steamless tube constructed and shall have arrangement for being connected to cooling water system through a siphon-built in the electrodes or through positive pressure water pump.

(b) The arrangement for cooling water referred to in clause (a) shall be connected with automatic alarm system which will actuated in the event of interruption of cooling water in the electrodes and given visible and audible alarm signals in the control room and simultaneously stop power supply for the furnace operation and to stop the further supply of water. The alarm system and the actuating device shall be checked every day.

4. *Rapture Discs and Safety Seal.* - (a) At least two rapture discs of adequate size which shall blow off at a pressure twice the maximum operating pressure shall be provided on each furnace and shall either be mounted directly on the top of the furnace or each through an independent pipe as close as possible to the furnace.

(b) A safety water shall be provided and tapped from a point between the charcoal separator and the sulphur separator.

5. *Pyrometer and Manometers.* - (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 the temperature shall be located in this control room.

(b) Manometers or any other suitable devices shall be provided for indicating pressure:-

(i) In the off take pipe before and after the sulphur separator; and

(ii) In primary and secondary condensers.

6. *Check Valves.* - All piping carrying carbon disulphide shall be fitted with check valves at suitable position so as to prevent gas from flowing back into any electric furnace in the event it is shut down.

### **Inspection and Maintenance of Electric Furnace**

7. (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 and de-ashing or for replacing electrodes.

(b) When an electric furnace shut down for cleaning and deashing :-

(i) The brick lining shall be checked for continuity and any part found defective be removed.

(ii) After removal of any part of the lining referred to in (a) the condition of the shell be closely inspected; and

(iii) Any plates forming shell found corroded to the extent that safety of the furnace is endangered shall be replaced.

8. *Maintenance of Records.* - The following hourly records shall be maintained in a log book :

(i) Manometer reading at the points specified in (5) (b) (i) and (ii).

(ii) Gas temperature indicated by pyrometers and all other vital points near the sulphur separator and primary and second condensers.

(iii) Water temperature and flow of water through the siphon in the electrodes.

(iv) Primary and secondary voltages and energy consumed.

9. *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.

10. *Prohibition relating to Smoking.* - No person shall smoke or carry matches fire or naked light of other means of producing a naked light or spark in buildings in which carbon disulphide is refined or stored and a notice in the language understood by a majority of the workers shall be pasted in the Plant prohibiting smoking and carrying of matches, fire or naked light or spark into such rooms.

11. *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 not less than 110 cm. in width and making an angle of not more than 45 from the horizontal 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.

12. *Warning 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.

13. *Fire fighting equipments.* - (a) Adequate number of suitable fire extinguishers or other fire fighting equipment shall be kept in constant readiness for dealing with risks involved and depending on the amount and nature of material stored.

(b) Clear instructions as to how the extinguishers or other equipment should be used printed in the language which the majority of the workers employed understand shall be affixed to each extinguisher or other equipments.

(c) Adequate number of persons shall be trained in the use of fire fighting equipments.

14. *Bulk Sulphur.* - (a) Open or semi-enclosed spaces for storage of bulk sulphur shall be sited with due regard to the dangers which may arise from sparks given by locomotives etc. and precautions shall be taken to see that flames, smoking and matches, and other sources of ignition do not come in contact with the clouds of dust arising during handing 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 enclosure shall be handled in such manner as to minimize the formation of dust clouds and no flame, smoking and matches or other sources of ignition shall be allowed and non-sparking tools shall be used whenever sulphur is shoveled.

(d) No repairs involving flames, heat or use of hand or power tools shall be made in the enclosure where bulk sulphur is stored.

15. *Liquid Sulphur.* - Open flames, electric sparks and other sources of ignition including smoking and matches, shall be excluded from the vicinity of molten sulphur.

16. *Training and Supervision.* - (1) All electric furnaces and all Plants in which carbon disulphide is condensed, refined or stored shall be under adequate supervision at all times while the furnaces and plants are in operation.

(b) Workers incharge of operation and maintenance of electric furnaces and the plants shall be properly qualified and adequately trained.

17. *Washing facilities.* - 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 atleast one tap or standpipe having a constant supply of clean water for every five such person, the taps or stand-pipes being space not less 120 cm. apart with sufficient supply of soap and clean towels. All the workers employed in the sulphur storage, handling and melting operations shall be provided with nail brush.

18. *Personal Protective Equipment.* - (a) Suitable goggled 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 pots; 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.

19. *Cloak-Rooms.* - There shall be provided and maintained for the use of all persons employed in the process a suitable cloak-room for clothing put off during work hours and a suitable place separate from the cloak-room for the storage of overalls or working clothes. The accommodation so provided shall be placed in the charge of responsible person and shall be kept clean.

20. *Unauthorised Persons.*- (a) Only maintenance and repair personnel, person directly connected with plant operating and those accompanied by authorised person shall be admitted into the plant.

21. *Medical Examination.*- (1) Every worker employed in the process of this schedule shall be examined by a medical officer. He shall issue fitness on **Form no.XIX**.

(2) 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 shall make a record of his findings in the said certificate and the health register on **Form no.XX**. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the said process. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the medical officer, in that case the person affected shall be suitably rehabilitated.

(3) No person who has been found unfit to work as said in sub-paragraph (2) 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.

(4) The record of the examinations shall be maintained and kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

### **Sub-Schedule-20**

#### **Manufacture or Manipulation of Manganese and its Compounds.**

1. *Definitions.*-For the purpose 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) "First employment" means first employment in any manganese process and includes also re-employment in any manganese process following any cessation of employment for a continuous period exceeding three calendar months;

(c) "Manipulation" means mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping or otherwise handling of manganese, or a compound of manganese, or an ore or mixture containing manganese; and

(d) "Efficient exhaust ventilation" means localized ventilation effected by mechanical means for the removal of dust or fume or mist at its source of origin so as to prevent it from escaping into the atmosphere of any place where any work is carried on. No 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 work place.

2. *Application.*-This Schedule shall apply to every factor in which or in any part of which any manganese process is carried on.
3. *Exemption.*- If in respect of any factory, the Chief Inspector 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 provision of this Schedule is not necessary for the protection of the persons employed in such factory he may, by an order in writing which he may at his discretion revoke, exempt such factory from all or any of the provisions on such conditions and for such period as he may specify in the said order.
4. *Isolation or 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 process and other parts of the factory and person on other work or process may not be affected by the same.
5. *Ventilation of process.*-No process in which any dust, vapour or mist containing manganese is generated shall be carried out except under an efficient exhaust ventilation which shall be applied as near to the point of generation as practicable.
6. *Medical examination.*-(1) Every person employed in a manganese process shall be medically examined by a Certifying Surgeon within 14 days of his first employment and thereafter at intervals of not more than three months.  
(2) If a person on medical examination is found fit for employment on a manganese process, the Certifying Surgeon shall grant a certificate of fitness in **Form no.XIX** which shall be kept in the custody of the manager of the factory. The certificate shall be readily produced by the Manager whenever required by any Inspector, and the certified person shall be provided with a token made of metal with the number of the certificate inscribed thereon and the said person shall always carry the said token on his person while at work.  
(3) If a person is found unfit to work on any manganese process the Certifying Surgeon shall grant a certificate to that effect and such person shall not be allowed to work in any manganese process.  
(4) If the Certifying Surgeon finds that any worker who had been granted a certificate of fitness at a previous medical examination is no longer fit to be employed on any manganese process he may revoke the previous certificate and no person whose certificate of fitness has been revoked shall be allowed to work on any manganese process.  
The Certifying Surgeon may require such person to be produced before him for fresh medical examination after such period as he may specify in writing on the revoked certificate and the Health Register.  
(5) If the Certifying Surgeon is of the opinion that a person had become permanently unfit for employment of any manganese process, he shall make an entry to that effect in the certificate and in the Health Register and no such person shall be allowed to work in any manganese process.  
(6) If the Certifying Surgeon is of the opinion that a person had become permanently unfit for any work in any factory or any process he shall grant a certificate to that effect.  
(7) If the Certifying Surgeon is of the opinion that any special expert examination or test is necessary for a proper diagnosis in a doubtful case, he may direct the Manager and/or the occupier, to

get the worker examined by such expert, or to get such tests carried out as may be specified by him and the Manager and/or the occupier, as the case may be, shall comply with direction given within the specified time and produce the report of examination or test as the case may be before the Certifying Surgeon.

(8) If the Certifying Surgeon is of the opinion that any person is not fit for employment in any manganese process but is fit to be employed on any other work he may advise accordingly and shall grant a certificate to that effect in which case the Manager and/or the occupier may employ the said person of such other job as may be safe for him.

(9) If any person has any doubt regarding the diagnosis of the Certifying Surgeon he may make an appeal to the Chief Inspector of Factories and Chief Inspector may refer the case to the Medical Inspector of Factories or to a Medical Committee constituted by him for this purpose of which the Medical Inspector of Factories shall be a member. The decision of the Medical Inspector or the Committee as the case may be shall be final in the matter.

7. *Personal Protective Equipment:* -(1) The occupier of the factory shall provide and maintain in good and clean condition suitable overalls and head coverings for all persons employed in any manganese process and such overall and head covering shall be worn by the person while working on a manganese process.

(2) 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 a condition to be used readily.

(3) The occupier shall provide and maintain for the use of all persons employed suitable accommodation for the storage and make adequate arrangement for cleaning and maintenance of personal protective equipment.

8. *Prohibition relating to women and young persons.*-No woman or a young person shall be employed or permitted to work in any manganese process.

9. *Food drinks prohibited in the work rooms*-No food, drink, Pan, Supari or tobacco shall be allowed to be brought into or consumed by any worker in any work room in which any manganese process carried on.

10. *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.

11. *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 wash place under cover, with either –

(1) a trough with a smooth impervious surface fitted with a waste pipe without plug. The trough shall be of sufficient length to allow at least 60 centimetres for every ten such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimetres or at least one wash basin for every five such persons employed at any time, fitted with a waste pipe and plug and having a constant supply of water; or

(2) sufficient supply of soap or other suitable cleaning material and nail brushes and clean towels.

12. *Cloak room.* – If the Chief Inspector 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 arrangement for drying the cloathing.

13. *Cautionary play card and instructions.* – Cautionary notice in the following form and printed in the language of the majority of the workers employed, shall be affixed at prominent places in the factory where they can easily and conveniently read by the workers and arrangement shall be made by the occupier to instruct periodically all workers employed in a manganese process regarding the health hazards connected with their duties and the best presentive measures and methods to protect themselves. The notices shall always be maintained in a legible condition.

### CAUTIONARY NOTICE

*Manganese and Manganese Compounds.*

- (1) Dusts, fumes and mistsof manganese and compounds are toxic, when inhaled or when ingested.
- (2) Do not consume food or drink near the work place.
- (3) Take good wash before taking meals.
- (4) Keep the working area clean.
- (5) Use the protective clothing and equipment provided.
- (6) When required to work in situations where dusts, fumes, or mists are likely to be inhaled, use respiratory protective equipment provided for the purpose.
- (7) If you get severe headaches, prolonged sleeplessness or any abnormal sensations on the body, report to the Manager who would make arrangements for your examination and treatment.

### Sub schedule 21

#### **Process Involving Manufacture, Use, Storing, Handling or Manipulating of Benzene or any Substance Containing Benzene.**

1. *Application.*- This schedule shall apply in respect of all factories or to any part of any factory in which benzene is manufactured, stored; handled or otherwise used or manipulated.
2. This schedule shall be without any prejudice to and in addition to and not in derogation to any provision of the Act or other rule or of any provision of any other Act, rule or regulation.
3. *Definitions.*-For the purpose of this Schedule: -
  - (a) "Benzene" means an aromatic hydrocarbon  $C_6H_6$  benzene or all substances containing benzene shall be treated as "benzene" for the purposes of this Schedule.
  - (b) "Effective substitute" means a chemical or any other substance which can be used as a substitute to benzene and which is not toxic or the toxicity of which is so low as not to be dangerous and unsafe for the health of any human being.
  - (c) "Enclosed apparatus" means an apparatus or system fully enclosed such that it will not allow any escape of benzene vapour or fume from the apparatus into the atmosphere at any state.
  - (d) "Efficient exhaust draught" means localised ventilation effected by mechanical or other means for the removal of vapour or fumes so as to prevent the vapour or fume from escaping into the air of any place in which work is carried on. No arrangement or device shall be deemed to be efficient which

fails to remove effectively vapour or fume generated at the point where it originates, and which permits the said vapour or fume removed to escape into or re-enter the same or any other work place either directly or indirectly.

(e) "Air-line respirator" means an apparatus for supply of air of required purity at required temperature and pressure in properly laid out pipe line with facilities to draw the breathing air from those pipe lines through a hose line to the face mask for the purposes of breathing fresh and pure air.

(i) Air-line respirator shall comprise containing breathable air with facilities for necessary nose connection and shall have suitable breathing mask provided so that a person working in poisonous or irritable atmosphere is able to breath pure and fresh air from the pipe line during the period of work, without any harm or injury to health or discomfort to him.

(ii) Air-line respirator shall also include any other suitable apparatus for the purpose of breathing pure and fresh air approved in writing by the Chief Inspector.

4. *cautionary Placards.* –Cautionary notice in the form specified in appendix A attached to this schedule and in the language of majority of workers employed shall be displayed at prominent places in the area, where there may be likelihood of presence or escape of benzene, either accidentally or under normal condition.

5. *Substitution.* – (a) Use of Benzene and substances containing benzene is prohibited in the following processes: -

(i) manufacture of varnishes, paints and thinners, and

(ii) cleaning and degreasing operations.

(b) Wherever any effective substitute is available benzene shall not be used.

(c) The Chief Inspector, by an order in writing, may allow the use of benzene, if he is satisfied in respect of any factory or any process that owing to the special condition or special method or work or for any other reason it is not necessary to substitute benzene, subject to such conditions as he may specify. He may in his discretion at any time revoke the whole or part of such order.

6. *Prohibition relating to employment of women and young persons.* – No women or young person shall be employed or permitted to work in any room or place in which benzene is used.

7. *Improper use of benzene.*– (a) Worker shall be prohibited to use benzene for any purpose other than the process for which the benzene is supplied or provided.

(b) Workers shall be instructed regarding the possible dangers arising from such misuse and a cautionary notice in respect thereof shall be displayed.

8. *Instructions as regards risks.*– Every worker in his first employment shall be fully introduced on the properties of benzene which he may have to handle, of the dangers involved and the precautions that should be taken. Workers shall also be instructed on the measures to be taken to deal with any emergency:

Provided further that such instructions shall be imparted by duly qualified medical or industrial hygiene officer or by duly qualified safety officer or in smaller factories where such officers are not available, by a duly qualified person and a record thereof shall be maintained in a register which shall be signed by the instructor as well as the manager and which shall be produced for inspection on demand.

9. *Prohibition on consuming food etc., in work places.*- No worker shall store or consume food, drink, tobacco, pan or any similar article on or near any part of the work place where benzene is manufactured, handled, stored or used.

10. *Enclosure of process.*-(a) All processes involving use of benzene shall be carried out in enclosed apparatus or plant.

(b) The Chief Inspector, if he is satisfied in respect of any factory or any process that owing to special conditions or special method or work or any other reason the work or process involving the use of benzene may be carried out in an apparatus which is not fully enclosed he may by an order in writing permit such a process to be carried out otherwise subject to such conditions as he may in his order specify.

He may in his discretion at any time revoke whole or part of such order.

11. *Efficient exhaust draught.*- Where a process using benzene cannot be carried out in an apparatus or plant totally enclosed, the Inspector may permit the factory to carry out such process under efficient exhaust draught with such condition that he may specify.

12. *Floor of work room.*-The floor of every work room in which benzene is manufactured, used, stored, or handled shall be: -

- (a) made of such material which may not absorb benzene;
- (b) Smooth and impervious to water;
- (c) maintained in sound condition;
- (d) with adequate slope and provided with efficient drains; and
- (e) thoroughly washed daily by means of hose pipe and the drain water shall be led into a sewer through a closed channel.

13. *Collection of waste.*-(a) A suitable receptacle made of metal with a tightly fitting cover, shall be provided and used in each work room by depositing wastes like cloth, paper or other material soiled with benzene.

(b) All such contaminated waste material shall be destroyed by burning at a safe place either when the receptacle is full or once in a day whichever is earlier.

14. *Empty containers.*- Empty containers used for holding benzene shall be thoroughly cleaned of their contents and treated with an inactivating agent before being discarded or disposed of.

15. *Decontamination of pit, tank etc.*-(a) No part of any plant which has contained benzene shall be repaired or opened for repair, unless it has been emptied of benzene, thoroughly cleaned and decontaminated and properly tested that it does not contain any trace of benzene.

(b) Before a worker enters a tank, pit, kettle or any other confined space which has contained benzene it shall be thoroughly washed and decontaminated and tested and certified by competent person that the tank, pit, kettle, or the confined space, as the case may be, is free of benzene and safe for any person to enter.

(c) Record of such test shall be maintained in a register which shall be signed by the competent person and the register shall be made available for inspection whenever required by an Inspector provided that the Chief Inspector may direct that the said register shall be maintained in a form specified by him.

16. *Proper labelling.*-Every container containing benzene shall have a proper label which shall include the following information:-

- (a) Benzene-Poisonous.
- (b) Benzene content-Percentage.
- (c) Warning about the toxicity.
- (d) Warning about inflammability.
- (e) Appropriate symbols.

17. *Washing facilities.*-(a) At the place wherein benzene is manufactured or used, stored or handled there shall be provided and maintained in clean state and in good repair washing facilities as specified below for the use of an persons employed in the process:-

- (i) An enclosed washing place under cover, with soap and towel and with at least one tap for every 10 persons working at any one time at the place and having a constant supply of water.
  - (ii) The washing facilities shall be located in a place easily accessible to workers.
  - (iii) A clean towel shall be provided individually to each worker if so directed by the Inspector.
- (b) All workers employed in any process in which benzene is used, before taking food or leaving the factory shall have a through wash.

Proper and adequate supervision shall be maintained over the workers so that they have through wash before meals and before leaving the factory at the end of the day's work. An Inspector may by an order in writing direct that sufficient quantity of hot water for washing during winter season shall be provided.

18. *Appropriate work clothes.*- Every worker exposed to benzenes shall be provided with suitable work clothes:

Provided that the Inspector may specify the type of work clothes to be provided to the workers exposed to benzene.

19. *Cloak room.*-There shall be provided and maintained in a clean state and in good repair for the use of the workers employed in processes in which benzene is manufactured used, handled or manipulated –

- (a) a cloak room with a locker for each worker having two compartments one for street clothes and the other for work clothes, and
- (b) a place separate from the labour room and from the mess room for the storage of protective equipments.

The accommodation so provided shall be under the care of responsible person:

Provided that the Inspector may direct the factory in writing to provide suitable drying or other facilities in the cloak room.

20. *Lunch room.*-There shall be provided and maintained for the use of the workers employed in the factory and remaining on the premises during the rest or lunch intervals, a lunch room which shall be properly ventilated and furnished with tables and benches and means for warming food. The lunch room shall be placed under the charge of a responsible person and shall be kept clean and well maintained at all times.

21. *Non-sparking tools.*-No tool which is likely to produce any spark due to impact or friction shall be allowed to be used and only non-sparking tools shall be used in any areas where benzene vapour is likely to be present whether normally or accidentally.

22. *Safe limits for benzene*-(1) The concentration of benzene shall not be allowed to exceed 25 parts of vapour or gas per million parts of air by volume or 60 milligram per cubic meter of air, in any part of the factory:

Provided that the Chief Inspector by an order in writing may change this limit at any time and where he considers the same necessary.

(2) Concentration of benzene in the work environment shall be determined at least once a day by adopting suitable tests. The result of such tests shall be entered in a register approved by the Chief Inspector and shall be produced whenever required by the Inspector.

Immediate steps shall be taken to reduce the concentration if found in excess of the specified safe limit. Where for special reasons workers may be exposed for short periods to concentration which exceeds the maximum limit referred to in sub-clause (1), they shall be provided with adequate means of personal protection against the risk of inhaling benzene vapour or of absorbing benzene through the skin.

23. *Protective wear and equipment.*-(a) Sufficient quantity of the following protective wear and equipment of appropriate and good quality shall be provided for the use of workers employed on any process of manufacture, storing, using, handling or manipulating benzene and they shall be properly maintained so as to be always in a condition to be used: -

(1) Gloves, (2) Aprons, (3) Boots, (4) Goggles (5) Respirators, and (6) Self-contained breathing apparatus.

(b) The above equipment shall be inspected regularly and maintained in proper conditions:

Provided that the Inspector may direct that such additional protective wear as he may specify in writing shall be provided for the use of any particular category of workers:

Provided further that in case there is any controversy or dispute regarding supply of any protective wear or equipment the matter shall be referred to the Chief Inspector whose decision would be final.

24. *Medical facilities.*-(a) With the prior approval of the Chief Inspector a qualified medical practitioner shall be appointed in every factory in which benzene is manufactured, used, stored, handled or manipulated to be here-in-after called the Plant Medical Officer:

Provided that-

(1) This rule shall not apply to a factory to which sub-rules (1) and (2) of rule 65 are applicable; and  
(2) in a small factory or in a factory in which workers employed on process of manufacturing, storing, using, handling or manipulating of benzene the Chief Inspector may permit the employment of a part-time Plant Medical Officer or may permit the Certifying Surgeon to perform the duties of the Plant Medical Officer, subject to such conditions as he may specify.

(b) Every worker exposed to benzene shall be medically examined and necessary tests to determine the conditions of his health shall be carried out by the Plant Medical Officer once in every three months:

Provided that if such a worker suffers from cough or breathlessness, his condition of health shall be immediately examined by the Plant Medical Officer, and necessary steps will be taken for his treatment.

(c) The result of such examination and test shall be entered in a suitable register which shall be produced before the Inspector, whenever required.

(d) Adequate supply of suitable antidotes shall be maintained for treatment of acute case of poisoning.

(e) For the purpose of medical examination which the Plant Medical officer may conduct at the factory premises shall be provided for his exclusive use along with one adequately ventilated, lighted and furnished room with a screen and instruments for such examination.

25. *Medical Examination.*- (a) Every worker employed in any process of manufacturing, using, storing, handling, or manipulating benzene shall be thoroughly examined by the Certifying Surgeon within seven days following the date of his first employment in any of the said processes and thereafter shall be thoroughly examined by the Certifying Surgeon once in a year or at such shorter intervals as may be specified in writing by the Chief Inspector. The examination shall also include X-Ray of lungs and a blood test. 'First Employment' includes re-employment in the said process following cessation of employment in such process for a period exceeding three months.

(b) A health register in **Form no.XX** containing the names of all workers employed in the said processes shall be maintained.

(c) If the plant physician after examination, at any time, as per clauses 23 (a), (b) and (c) is of opinion that a person has developed signs and symptoms of benzene exposure he shall make a record of his findings in the said register and inform the manager in writing regarding the same.

(d) A worker so found exposed, shall be sent to the Certifying Surgeon with a report of the Plant Physician. The Certifying Surgeon after satisfying himself with the findings of the Plant Physician and conducting further examination if he considers the same necessary, may issue an order for temporary suspension of the person from work in the said process or may advise the worker to be employed on some other work which may be safe for him, or may declare him to be permanently unfit as the case may be.

(e) The medical examination of workers shall be arranged by the occupier and manager and the person so examined shall not bear any expense for it.

26. *Isolation of building and site and fire resistance.*- (a) Building and plant shall be sited with due regards to the dangers which may arise from the processes involved and in particular shall be spaced at distances which are deemed safe for the fire and explosion risk. Consideration shall be given to the effect of any process carried out in adjacent factories or plants.

(b) Where special dangers exist, separate building shall be used for the different parts of a process. They shall be spaced at sufficient distances apart and shielded to prevent damage to each other in the event of fire or explosion, and shall be safe guarded by the provision of suitable blow-out panels for roofs. Where the risk of fire or explosion is considerable, the buildings shall be divided by blast or protective screen walls.

(c) No combustible material shall be used in the erection of working buildings, unless there are special reasons necessitating their use, in which case they shall be used only after being rendered fire-resistant. The roof shall be of light fire resistant construction and floors impervious fire-resistant materials and shall be regularly maintained in such condition.

27. *Dangers of ignition including lighting installation.*-(a) No internal combustion engine, and no electric motor or other electric equipment capable of generating sparks or otherwise causing

combustion shall be installed or used in a building or danger zone Electric conductor shall be encased in screwed steel conduct

(b) All hot exhaust pipes shall be installed outside a building and other hot pipe inside the plant be suitably protected.

(c) Portable electric lamps shall not be used, unless of an intrinsically safe type and portable electric tools connected by flexible wires shall not be used unless of the flame proof type.

(d) Where an inflammable atmosphere may occur, the soles of foot-wear worn by workers shall have no metal on them, and the wheels of trucks, or conveyors shall be of a material which shall be a good conductor and non-sparking. Adequate precautions shall be taken to, prevent ignition by sparks emitted from locomotives or other vehicles operated in the factory or on public lines.

(e) No electric arc lamp, or naked light fixed or portable shall be used, and no person shall have in his possession any match or any apparatus of any kind for producing a naked light or spark in, or on or about any part of the factory, where there is any likelihood of fire or explosion from inflammable vapour or fume, and alt incandescent electric lights in such parts shall be in double air tight glass covers.

(f) Prominent notice in the language understood by the majority of the workers and legible by day and night prohibiting smoking, the use of naked lights, and the carrying of matches or any apparatus for producing a naked light or spark shall be affixed at the entrance of every room or place where there is any risk of fire or explosion from inflammable vapour or fume. In the case of illiterate workers, the contents of the notices shall be fully and carefully explained to them when they commence work in the factory for the first time and again when they have completed one week at the factory.

(g) A sufficient supply of spades, scrappers and pails made from non-sparking materials shall be provided for the use of persons employed in cleaning out or removing residues from any chamber, still, tank or any other vessel wherein there may be risk of ignition or explosion, and in no case any tool other than non-sparking tool shall be used on any such work or, while undertaking any repair or maintenance work at any such place or plant.

28. *Static electricity and lightning protection.*-(a) All pipe lines and belts and other machinery and plants on which static electricity is likely to accumulate shall be effectively earthed. Receptacles for inflammable liquids shall have metallic connections to the earthed supply tanks to prevent sparking of static electricity, where necessary humidity shall be controlled.

(b) Mobile tank wagons shall be earthed during filling and discharge, and precautions shall be taken to ensure that earthing is effective before such filling or discharge takes place.

(c) Lightning protection apparatus shall be fitted where necessary, and shall be maintained in good condition.

29. *Process heating.*-The method of providing heat for a process shall be safe as possible, the heating medium shall be automatically controlled at a pre-determined temperature below the danger temperature.

30. *Escape of materials.*-(a) Provision shall be made in all plants sewers, drains, flues, ducts, culverts and burried pipes to prevent the escape and spread of any liquid, vapour or fume likely to give rise to fire or explosion, during normal working, cleaning or overhauling or in the event of accident or emergency.

(b) If escape occurs, such substances shall be removed expeditiously and efficiently at the point of liberation. The effluent shall be trapped and rendered sate outside the danger area.

31. *Leakage of inflammable or dangerous liquids* -Provision shall be made to continue by means of bund, walls, sumps, etc., possible leakages from vessels containing inflammable or dangerous liquids.

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

32. *Cleaning of empty containers.*- (a) All empty containers which have held inflammable or poisonous material shall be rendered permanently and completely safe and shall not be repaired or destroyed, until their cleaning in such manner as to make them completely and permanently safe has been completed.

(b) Combustible and inflammable materials shall not be stored in close proximity to chemicals which are liable to cause ignition.

(c) Rubbish shall be removed from buildings without delay and placed in special metal containers provided with close fitting lids. The contents shall be removed daily and suitably dealt with. Waste products containing inflammable or explosive materials shall not be placed on rubbish heaps but shall be destroyed in an appropriate manner.

33. *Installing of pipe lines for inflammable liquids.*-All pipe lines for the transport of inflammable liquids shall be protected against damage or breakage, shaft be arranged so that there is no risk or mechanical damage from vehicles and shall be so laid that, they drain throughout without the collection of deposits at any part.All flanged joints, bends and other connections shall be regularly inspected. Cocks and valves shall be so constructed that explosive residues cannot collect therein. The open and closed positions of all cocks and valves shall be clearly indicated on the outside.

34. *Packing of reaction vessels.*- Packing and joining materials for reaction vessels (including covers, man-hole covers and ventilation pipes) and in pipe lines and high or low temperature insulating materials shall not contain materials which are combustible or which react with the products of the plant.

35. *Safety valves.* -Every still and every closed vessel in which vapour is evolved, and in which the pressure is likely to rise to a dangerous degree. shall have attached to it a pressure gauge and a proper safety valve or other equally efficient means to relieve the pressure maintained in good condition.

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

37. *Examination testing and repair of plant.*-Examination, testing and repair of plant parts which have been in contact with explosives and inflammable material or which is under pressure shall be carried out only by proper supervisions,

38. *Alarm system.*-(a) Gravity of pressure, feed system of supplying inflammable materials to the various parts of the buildings or plant shall be fitted with alarm systems, automatic cut-offs or other devices to prevent overcharging or otherwise endangering the plant.

(b) The amount of inflammable material taken in bulk containers shall be kept a low as practicable at any one time.

(c) Adequate steps shall be taken to prevent the escape of inflammable and explosive vapour from any container into the atmosphere of any building.

**Appendix A**

## CAUTIONARY NOTICE.

(Clause 4)

- (1) Benzene and substances containing benzene are poisonous and inflammable substance.
- (2) Handle, use and process such substances with care. In case of spills and splashes remove contaminated clothing at once and take a wash.
- (3) wear protective equipment provided and keep yourself safe.
- (4) For better safety from these chemicals, maintain good personal cleanliness.
- (5) In case of symptoms like nausea, vomiting, giddiness, nervous depression during work, report immediately to the Factory Manger who would arrange for treatment.
- (6) Keep your work place clean.
- (7) Benzene can be absorbed through skin, hence avoid direct contact.
- (8) Avoid inhalation of the toxic vapours.
- (9) Smoking and taking food, drink, chewing tobacco are prohibited in this area.
- (10) Report for clinical tests to protect your health.

**Sub schedule 22****Manufacture of Slate Pencil**

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

(a) Manufacture of slate pencils means cutting of stone with the aid of circular saw or any other means for the manufacture of slate pencils and includes incidental processes, such as, handling and slicing of stone separating the pencils at the grooves cut by saws and incidental processes, such as, counting, packing, pointing and sorting of pencils.

(b) "*Efficient exhaust draught*" means localised ventilations by mechanical means for the removal of dust so as to prevent the dust from escaping into the air of any place in which work is carried on and no draught shall be deemed to be efficient which fails to remove the dust produced at the point where such dust originates.

**2. (a)** No process of cutting the stones or making a groove in the stone with the help of saw shall be carried out unless the cutting or grooving equipment is fitted with such an efficient exhaust draught, which exhausts the dust from the place where the dust originates and carries it away from the place of work.

(b) Where the exhaust fan and the cutting or grooving equipment are driven by separate motors, these motors shall be electrically so interlocked that unless the motor of the exhaust fan is working, it shall not be possible to start the motor used for driving the cutting or grooving equipment.

3. (a) No women or adolescents shall be required or allowed to work in the machines used for cutting the stones or making grooves on the stones.

(b) The work such as packing, repacking, pointing or sorting of pencil, breaking open the grooves or similar other operations, shall not be carried out in the same shed in which the operations or cutting of stone or making grooves on them are carried out.

4. (a) No worker shall be employed on the manufacture of slate pencils, unless he has been medically and radiologically examined by a medical officer, and declared fit for such employment by grant of certificate of fitness in **Form no.XIX**.

(b) Every workers employed on the manufacture of slate pencil on the date on which this Schedule comes in force shall be medically and radiologically examined by a medical officer within 3 months of the said date.

(c) Every worker employed on the manufacture of slate pencil manufacturing shall be medically examined by a medical officer at a interval of not more than six months after the first examination conducted under the said sub-clauses (a) and (b) and shall be radiologically examined at an interval as may be directed by the medical officer.

(d) Worker already in employment and declared unfit by a medical officer shall not be allowed to work on the manufacture of slate pencils, unless he is examined again and granted a certificate of fitness.

(e) The medical officer may direct that a worker may be got radiologically examined or the may be subjected to further examination, clinical, pathological or otherwise, or that he may undergo specified treatment, and it shall be the responsibility of the occupier and the manager to arrange for the specified examination and treatment, and to bear all expenses thereof and in connection therewith.

(f) The medical officer shall, after each examination grant a certificate in **Form no.XIX**.

(g) The manager shall maintain all certificates on **Form no.XX** in a proper file and shall produce all the certificates before the Inspector cum facilitator whenever demanded.

5. No worker shall be required or allowed to work on cutting, groove making machine or any other equipment generating dust from the stone used for manufacturing slate pencils, unless he is wearing dust mask.

### Sub schedule 23

#### Manufacture and Manipulation of Dangerous Pesticides

1. Definitions.-For the purpose of this Schedule the following definitions shall apply: -

(i) 'Dangerous pesticides' means any chemical or substance used for controlling, destroying or repelling any pest or for preventing growth thereof or for mitigating effect of such growth including any of its formulations which is considered toxic under and is covered by the Insecticides Act, 1968 and the rules made thereunder, and any other substance, which may be notified from time to time by the State Government to be a dangerous pesticides.

(ii) 'Manipulation' includes mixing, blending, formulating, filling, emptying, packing or otherwise handling.

(iii) 'Efficient exhaust draught' means localized mechanical ventilation for removal of smoke gas, vapour dust, fume or mist so as to prevent the same from escaping in the air of any work place where any work is carried on. No arrangement or device shall be deemed efficient if it fails to remove the smoke fume or mist generated at the point where it originates, and which permits the substance renewed to escape into or re-enter the same or any other place of work-either directly or indirectly.

(iv) 'First Employment' shall mean first employment in any manufacturing process to which this Schedule applied and shall also include re-employment in said manufacturing process following any cessation of employment for a continuous period exceeding three calendar months.

(v) 'Suspension' means suspension from employment in any process wherein a dangerous pesticides is manipulated by a written certificate in the Health Register in **Form no.XX** signed by the Certifying Surgeon who shall be competent to suspend any person employed in such process.

2. *Application.*- (1) This Schedule shall apply in respect of all factories or any plant of any factory in which the process of manufacture or manipulation of any dangerous pesticide hereinafter referred to as the said "Manufacturing process" is carried on.

(2) These Rules shall be in addition and not in derogation to any other provision of the Act or the Rules or to the provisions of any other Act in force.

3. *Instruction of workers.*- Every worker on his first employment shall be fully instructed on the properties including dangerous property of the chemical used or handled in the said manufacturing process and the hazards involved. The worker shall also be instructed in the measures to be taken to deal with any emergency. Such instructions shall be repeated periodically.

4. *Cautionary Notice and placards.*-Cautionary notices and placards in the form specified in Appendix I of this Schedule and printed in the language of the majority of the workers shall be displayed in all work places in which the said manufacturing process is carried on so that they can be easily and conveniently read by the workers.

5. *Prohibition relating to employment of women or young persons.*- No women or young person shall be employed or permitted to work in any room in which the said manufacturing process is carried on or in any room in which any dangerous pesticide is stored.

6. *Food, drinks and smoking prohibited.*(1) No food, drink, tobacco, pan or supari shall be brought in or consumed by any worker in any work room in which the said manufacturing process is carried out.

(2) Smoking shall be prohibited in any work room in which the said manufacturing process is carried out.

7. *Medical Examination.*- (1) Every worker proposed to be employed in the said manufacturing process shall be examined by a Certifying Surgeon before his first employment and shall be employed on the said manufacturing process only, if declared fit for such employment and a certificate to this effect is granted in **Form no.XXI**.

(2) Every worker already employed on the said manufacturing process on the date on which these rules come into force shall be examined by a Certifying Surgeon within one month of the said date and shall be allowed to continue on the said manufacturing processes only, if declared fit for such employment and a certificate to this effect is granted in **Form no .XXI**.

(3) Every worker employed in the said manufacturing processes shall be re-examined by a Certifying Surgeon at least once in three calendar months and a record thereof shall be kept in **Form no.XIX**.

(4) No worker after suspension shall be employed without written sanction from the Certifying Surgeon entered in or attached to the Health Register.

8. *Medical facilities.* -A qualified medical practitioner shall be employed in which the said manufacturing processes is carried on who shall examine every worker employed on the said manufacturing process at least once in every week and when necessary treat for the effects of excessive absorption of the dangerous pesticides.

(2) Effective arrangements shall be made to ensure quick availability of a qualified medical practitioner in emergency.

(3) Necessary and adequate medicines and antedotes and other equipments required for treatment of excessive absorption of dangerous pesticides shall be provided and maintained at all times.

(4) Record of examination and treatment and tests shall be maintained in Form no. 16 and shall be made available to Inspector for inspection.

(5) The Chief Inspector may direct by an order in writing any suitable clinical tests to be carried out at specified intervals in respect of workers employed in any factory in which the said manufacturing process is carried on.

9. *Protective clothing and protective equipment.*- (1) Protective clothing consisting of long pants and shirts or overalls with long sleeves, and head covering shall be provided for all workers employed in the said manufacturing process.

(2) (a) Protective equipments 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.

(3) Protective clothing and equipment shall be worn by the worker supplied with such clothing and equipment whenever he works on the said manufacturing process.

(4) 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 as frequently as necessary, if handling other pesticides, depending upon the nature thereof.

(5) Protective clothing and equipment shall be maintained in good repair.

10. *Floors and work benches.*-(1) Floors in every work room where dangerous pesticides are manipulated shall be of cement or other impervious material giving a smooth surface.

(2) Floors shall be maintained in good repair, provided with adequate slop leading to a drain and thoroughly washed once a day with hose pipe.

(3) 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.

11. *Spillage and waste.*-(1) If a dangerous pesticides during its manipulation splashes or spills on the work benches floor or on the protective clothing worn by a Worker, immediate action shall be taken for thorough decontamination of the work-bench, floor or protective clothing as the case may be.

(2) Cloth, rag, paper or other material soaked or solid with any dangerous pesticides shall be deposited in a suitable receptacle with tight fitting cover. Contaminated waste shall be destroyed by burning at least once a week.

(3) Suitable deactivating agents, where available, shall be kept in a readily accessible place for use in attending to a spillage.

(4) Easy means of access shall be provided to all parts of the plant for cleaning, maintenance and repairs.

12. *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 destroyed or disposed of.

13. *Manual handling.*- (1) A dangerous pesticides shall not be required or allowed to be manipulated by hand except by means of a long handled scope.

(2) Direct contact of any part of the body with a dangerous pesticides shall be avoided.

14. *Ventilation.*-(1) In every work room or area where any dangerous pesticides is manipulated, adequate ventilation shall be provided at all times by the circulation of fresh air.

(2) Unless the plant and the process is completely enclosed the following operations in connection with the manipulation of a dangerous pesticides shall not be allowed to be carried out or undertaken without an efficient exhaust draught: -

(a) employing a container holding a dangerous pesticides.

(b) blending a dangerous pesticides.

(c) preparing a liquid or power formulation containing a dangerous pesticides.

(d) Changing or filling a dangerous pesticides into any container including small size container, tank hopper or machine.

(3) In the extent of a failure of the exhaust draught provided the operations mentioned in sub-rule (2) shall be stopped forthwith.

15. *Time allowed for washing.*-(1) Before each meal and before 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 any dangerous pesticide.

(2) Every worker engaged in the manipulation of dangerous pesticides shall have thorough wash before consuming any food and also at the end of the day's work.

16. *Washing and bathing facilities.*- (1) There shall be provided and maintained in clean state and in good repair for the use of the workers employed on the said manufacturing process adequate washing and bathing places having a constant supply of water under cover at the rate of one place for every such 5 workers employed at any one time:

Provided that the provisions of sub-rule (4) of rule 63 relating to persons, whose work involves contact with an injurious or noxious substance shall not apply in respect of workers employed on the said manufacturing process:

Provided further that for computation of the number of workers, maximum number of workers employed at any one time on any day shall be the basis.

(2) The washing places shall have stand pipes placed at interval of not less than one meter.

(3) Not less than one-half of the total number of washing place shall be provided with bath-room.

(4) Sufficient supply of clean towels made of suitable material shall be provided:

Provided that such towels shall be supplied individually for each worker, if so ordered by the Inspector.

(5) Sufficient supply of soap and nail brushes shall be provided.

17. *Cloak-rooms.* -There shall be provided and mentioned for the use of the workers employed in the said manufacturing process: -

(1) a cloak-room for clothings put off during working hours with adequate arrangements for drying of the clothing, if wet.

(2) Separate cupboards or some other suitable arrangement for the storage of protective clothings provided under paragraph 9.

18. *Mess-room.* –There shall be provided and maintained for the use of the workers employed in the factory in which the said manufacturing process is carried on a suitable mess-room which shall be furnished with: -

- (1) Sufficient tables and benches with back-rest;
- (2) adequate number of wash-basins; and
- (3) adequate means for warming food.

The mess room shall be placed under the charge of whole time attendance and shall be kept clean.

19. *Exemption.*- If in respect of any factory the Chief Inspector is satisfied that owing to the exceptional circumstances or Infrequency of the said manufacturing process or for any other reason which he shall record in writing all or any of the provisions of this schedule are not necessary for the protection of the workers employed in the factory, he may by an order in writing, exempt, such factory from all or any of the provisions of this schedule on such condition as he may specify therein, such order may at any time be revoked by the Chief Inspector after recording his reasons therefor.

20. *Manipulation not to be undertaken.*- Manufacture or manipulation of a pesticide shall not be started in any factory unless a certificate regarding its dangerous nature or otherwise is obtained from the Chief Inspector.

### Appendix I

#### CAUTIONARY NOTICE *Insecticides and Pesticides.*

1. Chemicals handled in this plant are poisonous.
2. Smoking, taking food or drink, chewing tobacco in this area is prohibited. No food or drink shall be brought in this area.
3. Some of these chemicals may be absorbed through skin and may cause poisoning.
4. A good wash shall be taken before every meal.
5. A good bath shall be taken at the end of the shifts.
6. Protective clothing and equipment supplied shall be used while working in this area.
7. Containers of pesticides shall not be used for keeping any food staff or drink.
8. Spillage of any chemical on any part of the body or on the floor or work bench shall be immediately washed away with water.
9. Clothing contained 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 any sickness like nausea, vomiting, giddiness, the superior officer, the manager, the Plant Medical Officer if there is any, should be informed who will make necessary arrangements for treatment.

13. All workers shall report for the prescribed medical examination and test regularly and when required to protect their own health.

#### Sub schedule 24

##### Manufacture or manipulation of Carcinogenic dye intermediates

**1. Application.** - This schedule shall apply in respect of all factories or any part thereof where processes in which the substances mentioned in paragraphs 3 and 4 formed, manufactured, handled, or used and the processes incidental thereto in the course of which these substances are formed, are carried on. The processes indicated in this paragraph shall be referred to hereinafter as "the said processes", and such a reference shall mean any or all the processes described in this paragraph.

**2. Definitions.** - For the purpose of this schedule-

(a) "*controlled substances*" means chemical substances mentioned in paragraph 4 of this schedule;

(b) "*first employment*" means first employment in the said processes and also re-employment in such processes following any cessation of employment for a continuous period exceeding three calendar months;

(c) "*efficient exhaust draught*" means localised ventilation effected by mechanical means for the removal of gas, vapour, dust or fume so as to prevent them from escaping into the air of any place in which work is carried on. No draught shall be deemed to be efficient which fails to remove smoke generated at the point where such gas, vapour, fume or dust originates; and

(d) "*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 total concentration and exceeding one per cent :

(a) beta-naphthylamine and its salts;

(b) benzidine and its salts;

(c) 4-amino diphenyl and its salts;

(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) dichlorobenzidine and its salts;
- (e) auramine; and
- (f) magnets.

**5. Prohibition of employment.** - No person shall be employed in the said processes in any factory in which any prohibited substance is formed, manufactured, processed, handled, or used except as exempted by the Chief Inspector cum facilitator as stipulated in paragraph 23.

**6. Requirements for processing or handling controlled substance.** (1) Wherever any of the controlled substances referred to in paragraph 4 are formed, manufactured, processed, handled, or used, all practical steps shall be taken to prevent inhalation, ingestion or absorption of the said controlled substance by the workers while engaged in processing that substance, and its storage or transport within the plant, or in cleaning or maintenance of the concerned equipment, plant, machinery and storage areas.

(2) As far as possible all operations shall be carried out in a totally closed system. Wherever such enclosure is not possible, efficient, exhaust draught shall be applied at the point where the controlled substances are likely to escape into the atmosphere during the process.

(3) The controlled substances shall be received in the factory in tightly closed containers and shall be kept so except when these substances are in process or in use. The controlled substance shall leave the factory only in tightly closed containers of appropriate type. All the containers shall be plainly labeled to indicate the contents.

**7. Personal protective equipment.** - (1) The following item to personal protective equipment shall be provided and issued to every worker employed in the said processes :-

- (a) long trousers and shirts or overall with full sleeves and head cover in the shirt or overall shall cover the neck completely; and
- (b) rubber gum-boots.

(2) The following item of personal protective equipment shall be provided in sufficient numbers for use by workers employed in the said processes when there is danger or injury during the performance of normal duties or in the event of emergency :-

- (a) rubber hand gloves;
- (b) rubber aprons; and
- (c) Airline respirators or other suitable respiratory protective equipment.

(3) It shall be the responsibilities of the manager to maintain all item of personal protective equipment in a clean and hygenic conditions and in good repair.

**8. Prohibition relating to employment of women and adolscent.** - No women or adolscent shall be employed or permitted to work in any room in which the said processes are carried on.

**9. Floors of work-room.** - The floor of every work-room in which the said processes are carried on shall be-

- (a) smooth and impervious to water provided that asphalt or tar shall not be used in the composition of the floor;
- (b) maintained in a state of good repair;

- (c) with suitable slope for easy cleaning and provided with gutters; and  
 (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 discharged.

**11. Manual handling.** - Controlled substances shall not be allowed to be mixed, filled, emptied or handled except by means of a scoop with a handle. Such scoop shall be thoroughly cleaned daily.

**12. Instructions regarding risk.** - Every worker on his first employment in the said processes shall be fully instructed of the properties of the toxic chemicals to which he is likely to be exposed to of the dangers involved and the precautions to be taken. Workers shall also be instructed on the measures to be taken to deal with an emergency.

**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 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 present themselves for the medical examination including exfoliative cytology of urine by the Medical officer or the qualified medical practitioner as provided for under these rules.

**15. Washing and bathing facilities.** - (1) The following washing and bathing facilities shall be provided and maintained in a clean state and in good repairs for the use of all workers employed in the said processes :-

- (a) a wash place under cover having constant supply of water and provided with clean towels, soap and nail brushes and with at least one stand pipe, for every five such workers;  
 (b) 50 per cent of the stand pipes provided under clause (a) shall be located in bath-rooms where both hot and cool water shall be made available during the working hours of the factory and for one hour thereafter.  
 (c) the washing and bathing facilities shall be in closed proximity of the area housing the said processes;  
 (d) clean towels shall be provided individually to each worker; and  
 (e) in addition to the taps mentioned under clause (a), one stand pipe, in which warm water is made available, shall be provided on each floor.

(2) 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, pan, supari or tobacco or shall smoke in any workroom in which the said processes or carried on and no worker shall remain in any such room during intervals for meals or rest.

**17. Cloak-room.** - There shall be provided and maintained in clean state and in good repair for the use of the workers employed in the said processes-(a) a cloak-room 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 shall be under the care of a responsible person and shall be kept clean.

**18. Messroom.** - There shall be provided and maintained for the use of the workers employed in the said processes who remain on the premises during the meal intervals, a messroom 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 processes. Further, atleast 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 Examination-**(1) Every worker employed in the said processes shall be examined by a medical officer within 14 days of his first employment. Such examination shall include tests which the medical officer may consider appropriate and shall include ex-foliative cytology of the urine. No worker shall be allowed to work after 14 days of his first employment in the factory unless certified fit for such employment by the medical officer.

(2) Every worker employed in the said processes shall be re-examined by a medical officer at least once in every six calendar months. Such examination shall include tests which the medical officer may consider appropriate but shall include ex-foliative cytology of the urine.

(3) A person medically examined under sub-paragraph (1) shall be granted by the medical officer certificate of fitness in **Form no.XIX**. The record of each examination carried out as referred to in sub-paragraphs (1) and (2) including the nature and the results of the tests shall be entered by the medical officer in a health register in **Form no.XX**.

(4) The certificate of the fitness and the health register shall be kept readily available for inspection by any Inspector.

(5) The occupier of every factory in which the said processes are carried on shall engage a qualified medical practitioner for medical surveillance of the workers employed in such processes. His appointment shall be subject to approval of the Chief Inspector cum Facilitator. The occupier shall provide to him all the necessary facilities for the purposes referred to in sub-paragraph (1).

(6) Every worker employed in the process of this schedule shall be examined by a medical officer. He shall issue fitness on **Form no.XIX**.

(7) 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 shall make a record of his findings in the said certificate and the health register **Form no.XX**. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the said process. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the medical officer, in that case the person affected shall be suitably rehabilitated.

(8) No person who has been found unfit to work as said in sub-paragraph (6) 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) The record of the examinations shall be maintained and kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

**22. Exemptions-Prohibited substances.-** (1) The Chief Inspector cum facilitator may by a certificate in writing (which he may at his discretion revoke at any time), subject to such conditions, if any, as may be specified therein, exempt any process in the course of which any of the prohibited substances is formed, processed, manufactured, handled, or used, from the provisions of paragraph 5 if he is satisfied that the process is carried out in a totally enclosed and hermetically sealed system in such a manner that the prohibited substance is not removed from the system except in quantities no greater than that required for the purpose of control of the process or such purposes as is necessary to ensure that the product is free from any of the prohibited substances.

(2) The Chief Inspector cum facilitator may allow the manufacture, handling or use of benzidinehydrochlorine 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 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 less than one part of water to two parts of benzidine hydrochloride at all times.

**23. Exemptions general.** - If in respect of any factory, the Chief Inspector cum facilitator is satisfied that owing to the exceptional circumstances or in frequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for the protection of the workers in the factory, the Chief Inspector may by a certificate in writing (which he may in his discretion revoke at any time), exempt such factory from all or any of such provisions subject to such conditions, if any as he may specify herein.

### Sub schedule 25

#### “Operations involving High Noise and Vibration levels

##### Part-A High Noise Levels:

1. **Application** – This part of the schedule shall apply to all operations in any manufacturing process having high noise level.

2. **Definitions-** For the purpose of this schedule –

(a) “Noise” means any unwanted sound.

(b) “High Noise level” means any noise level measured on the weighted scale is 85 dB or above.

(c) “Decibel” means one-tenth of “Bel” which is fundamental division of a logarithmic scale used to express the ratio of two specified or implied quantities, the number of “Bels” denoting such a ratio being the logarithm to the base of 10 of this ratio. The noise level (or the sound pressure level) 6 corresponds to a reference pressure of  $20 \times 10$  Newton per square meter or 0.0002 dynes per square centimetre which is the threshold of hearing, that is, the lowest sound pressure level necessary to produce the sensation of hearing in average healthy listeners.

The decibel is abbreviated for 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 sound level meter operating on the A-weighting net work with slow meter response.

(f) “A-weighting” means making graded adjustment in the intensities of sound of various frequencies for the purpose of noise measurement, so that the sound pressure level measured by an instrument reflects the actual response of the human ear to the sound measured.

### 3. Protection against noise –

(1) In every factory a suitable engineering control or administrative measures shall be taken to ensure, so far as is reasonably practicable, that no worker is exposed to sound levels exceeding the maximum permissible noise exposure levels specified in Tables 1 and 2.

**Table 1**

#### Permissible exposure in cases of continuous noise

Total time of exposure (continuous short term exposurs)	Sound pressure level in or a number of Db A per day, in hours
8	85
6	87
4	90
3	92
2	95
1 ½	97
1	100
¾	102
½	105
¼	110

Notes: 1. No exposure in excess of 110 dBA is to be permitted.

2. For any period of exposure falling in between any figure and the next higher or lower figure as indicated in column I, the permissible sound pressure level is to be determined by extrapolation on a proportionate basis.

**Table 2**

#### Permissible exposure levels of impulsive or impact noise

Peak sound pressure level in dB	Permitted number of impulses or impact per day
140	100

135	315
130	1,000
125	3,160
120	10,000

Notes: 1. No exposure in excess of 140 dB peak sound pressure level is permitted.

2. For any peak sound pressure level falling in between any figure and the next higher or lower figure as indicated in column I, the permitted number of impulses or impacts per day is to be determined by extrapolation on a proportionate basis.

(2) For the purpose of this schedule, if the variations in the noise level involve maximum intervals of one second or less, the noise is to be considered as a continuous one and the criteria given in Table I would apply. In other cases, the noise is to be considered as impulsive or impact noise and the criteria given in Table 2 would apply.

(3) When the daily exposure is composed of two or more periods of noise exposure at different levels their combined effect should be considered rather than the individual effect of each. The mixed exposure should be considered to exceed the limit value if the sum of the fractions

$$\frac{C_1}{T_1} + \frac{C_2}{T_2} + \dots + \frac{C_n}{T_n} \text{exceeds unity, -}$$

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. 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 sub-clause (1) by reasonably practicable engineering control or administrative measures the noise exposure shall be reduced to the greatest extent possible by such control measures, and each worker so exposed shall be provided with suitable ear protectors as per relevant National or International Standards so as to reduce the exposure to noise to the levels specified in sub-clause 3(1).

(4) (1) 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 as low as is reasonably practicable.

(b) After consultation with the employees concerned or their representative.

(c) To ensure the hearing protectors is full and properly fitted, periodically checked for the effectiveness, maintained in good working order and repair.

(d) Ensure that workers are given periodical training in the use, care and maintenance of the Personal hearing protectors.

(5) Where the ear protectors provided in accordance with sub-paragraph 3(4) and worn by a worker cannot still attenuate the noise reaching near his ear, as determined by subtracting the attenuation

value in dBA of the ear protectors concerned from the measured sound pressure level, to a level permissible under Table 1 or Table 2 as the case may be, the noise exposure period shall be suitably reduced to correspond to the permissible noise exposures specified in sub-paragraph (1).

(6) (a) In all cases where the prevailing sound levels exceed the permissible levels specified in sub-paragraph (1) there shall be administered an effective hearing conservation programme which shall include among other hearing conservation measures, pre-employment and periodical auditory surveys conducted on workers exposed to noise exceeding the permissible levels, and rehabilitation of such workers either by reducing the exposure to the noise levels or by transferring them to places where noise levels are relatively less or by any other suitable means.

(b) Every worker employed in areas where the noise exceeds the maximum permissible exposure levels specified in sub-clause (1) shall be subjected to any auditory examination by a Certifying Surgeon within 14 days of his first employment and thereafter, shall be re-examined at least once in every 12 months. Such initial and periodical examinations shall include tests which the Certifying Surgeon may consider appropriate and shall include determination of auditory thresholds for pure tones of 125, 250, 500, 1,000, 2,000, 4,000 and 8,000 cycles per seconds.

### **Part-B High Vibration Levels:**

#### **(1) Applications:**

This part of the Schedule shall apply to all operations in a manufacturing part of the process having high undesired vibrations.

#### **(2) Definition:**

(a) "daily exposure" means the quantity of mechanical vibration to which a worker is exposed during a working day, which takes into account the magnitude and duration of the vibration;

(b) "Vibration" means a mechanical phenomenon whereby oscillations occur about 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 clause-3.

(d) "exposure action value" means the level of daily exposure set out in clause-3 for any worker which, if reached or exceeded, requires specified action to be taken to reduce risk;

(e) "exposure limit value" means the level of daily exposure for any worker which must not exceed, as specified in sub clause-3.

(f) "hard-arm vibration" means mechanical vibration which is transmitted into the hands and arms during a work activity;

(g) "mechanical vibration" means vibration occurring in a piece of machinery or equipment or in a vehicle as a result of its operation; and

(h) "whole-body vibration" means mechanical vibration which is transmitted into the body, when seated or standing, through the supporting surface, during a work activity or as described in sub clause 3(2).

#### **(3) Exposure limit values and action values.**

(1) For hand-arm vibration-

(a) the daily exposure limit value is  $5 \text{ m/s}^2 \text{ A(8)}$ ;

(b) the daily exposure action value is  $2.5 \text{ m/s}^2 \text{ A(8)}$ ,

and daily exposure shall be ascertained on the basis set out in the relevant National/International Standards specified in table I below.

(2) For whole body vibration-

(a) the daily exposure limit value is 1.15 m/s<sup>2</sup> A(8);

(b) the daily exposure action value is 0.5/ms<sup>2</sup> A(8),

and daily exposure shall be ascertained on the basis set out in the relevant National/ International Standards

Table 1

The Threshold Limit Values (TLVs) for exposure of the hand-arm vibration in X, Y, or Z direction of axes in the three dimensional system shall be as given below:

Total Daily Exposure Duration (hours)	Maximum value of frequency weighted acceleration (in/s <sup>2</sup> ) in any direction
4 to less than 8 hours	4
2 to less than 4 hours	6
1 to less than 2 hours	8
Less than 1 hours	12

(3) (a) Assessment of vibration exposure shall be made for each applicable direction (X,Y,Z), since vibration is a vector quantity (magnitude and direction). In each direction, the magnitude of the vibration during normal operation of the power tool, machine or work piece should be expressed by the root-mean-square (RMS) value of the frequency weighted component acceleration, in units of meter per second squared (m/ s<sup>2</sup>)

(4) Assessment of risk to health due to vibration at the work place.

(a) An occupier who carries out work which is liable to expose any worker to vibration, shall make a suitable and sufficient assessment of the risk created by that work to the health and safety of those and the risk assessment shall identify the control measures that need to be taken.

(b) The risk assessment should be reviewed, whenever it is felt that the changes in the process make the earlier risk assessment no longer valid.

(5) Engineering control measures.

(1) 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.

(2) Where it is not reasonably practicable to eliminate risk at source pursuant to paragraph (a) and an exposure action value is likely to be reached or exceeded, the employer shall reduce exposure to as

low a level as is reasonably practicable by establishing and implementing a programme of engineering control measures which are appropriate to this type of activity.

(3) The occupier shall ensure that the workers are provided with the following measures:

(a) work equipment of appropriate ergonomic design which, taking account of the work to be done, produces the least possible vibration;

(b) the provision of auxiliary equipment which reduces the risk of injuries caused by vibration; and install appropriate maintenance programmes for work equipment, the work place and workplace systems;

(4) Subject to sub clause 5, the employer shall ensure that his employees are not exposed to vibration above an exposure limit value; and shall take necessary steps to identify the reasons for the limit being exceeded and take appropriate steps to reduce the exposure to vibration to below limit value.

Provided that where the exposure of an employee to vibration is usually below the exposure action value but varies markedly from time to time and may occasionally exceed the exposure limit value.

Further provided that-(a) 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 (b) risk is reduced to as low a level as is reasonably practicable, taking into account the special circumstances.

#### **(6) Medical Examination.**

(1) The occupier shall ensure that the workers who are likely to be exposed to vibration at 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 Raynaud's phenomenon.

(2) The health record of workers shall be maintained by the occupier for a period of 5 years from the date of the last test and shall be produced to the Inspector of Factories on demand.

(3) If at any time the Certifying Surgeon/Factory Medical Inspector is of the opinion that the worker is no longer fit to work in the said process on the ground that continuous working would involve danger to the health of the worker, he shall make a record of his finding in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the Certifying Surgeon in which case the person affected shall be suitably rehabilitated.

#### **(7) Personal Protective equipment.**

(1) The occupier shall ensure that the worker who are likely to be exposed to high level of vibration are provided with appropriate PPE and protective clothing conforming to 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 cold and damp.

(2) The occupier shall ensure that workers are given periodical training in the use, care and maintenance of the Personal Protective Equipment.

**(8) Administrative Control Measures.**

(1) The occupier shall ensure that as far as reasonably practicable, all necessary control measures are taken to ensure that the unwanted vibration do not affect the health of the workers employed in the process, to which this part of the schedule apply.

(2) The occupier shall provide all workers with information instruction and training, to be adopted to limit the exposure limit values and action values as set out in sub clause-3.

(3) Without prejudice to the generality of paragraph (1), the information, instruction and training provided under that paragraph shall include-

- (i) the exposure limit values and action values set out in sub clause-3.
- (ii) safe working practices to minimize exposure to vibration; and
- (iii) suitable and sufficient information and training for employees, such that work equipment may be used correctly and safely, in order to minimize their exposure to vibration;
- (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 paragraph (2) shall be updated to take account significant changes in the type of work carried out or the working methods used by the employer.

(4) The Occupier shall display pictorial cautionary notice/warning signs at conspicuous places, where there are possibilities of workers being exposed to undesired 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.

**Exemptions:** If in respect of any factory, the Chief Inspector is satisfied that owing to any exceptional circumstances, or infrequently of the process, or for any other reasons, application of all or any of the provisions of this schedule is not necessary for the protection of the persons employed in such factory, he may by an order in writing which he may at his discretion revoke, exempt such factory from all or any of the provisions on such conditions and for such period as he may specify in the said matter.”

**Sub schedule 26**

**Manufacture of Rayon by Viscose Process**

**1. Definitions.** - 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-di-sulphide;
- (d) "*dumping*" means transfer of cellulose xanthate from a dry churn to a dissolver;

(e) "*efficient exhaust draught*" means localised ventilation by mechanical means for the removal of any gas or vapour, so as to prevent it from escaping into the air of any place in which work is carried on. No draught shall be deemed to be efficient if it fails to control effectively any gas or vapour generated at the point where such gas or fume or ignites;

(f) "*fume process*" means any process in which carbon disulphide or hydrogen sulphide is produced, used or given off;

(g) "*life belt*" means 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 man;

(h) "*protective equipment*" means apron, goggles, face shields, foot wear, gloves and overalls made of suitable materials.

**2. Ventilation.** - (1) In all workrooms where a fume process is carried on, adequate ventilation by natural or mechanical means shall be provided so as to control in association with other control measures, the concentration of Carbon-di-sulphide and hydrogen sulphide in the air of every work environment within the permissible limits.

(2) Notwithstanding the requirements in sub-paragraph (1) an 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 location:-

- (a) dumping hoppers of dry churns;
- (b) spinning machines;
- (c) trio rollers and cutters used in staple fibre spinning;
- (d) hydro-extractors for yarn cakes;
- (e) after treatment processes, and
- (f) spin baths.

(3) In so far as the spinning machines and trio rollers and cutters used in staple fibre spinning are concerned, they shall be, for the purpose of ensuring the effectiveness of the exhaust draft to be provided as required in sub-paragraph (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.

(4) 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 arrangement for exhausting the vapours which shall be continued to be operated as long as the churn is kept opened.

(5) Whenever any ventilation apparatus normally required for the purpose of meeting the requirements in sub-paragraphs (2), (3) and (4) is ineffective, fails, or is stopped for any purpose whatsoever, all persons shall be required to leave the work areas where the equipment or processes specified in the above said sub-paragraphs are in use, as soon as possible, and in any case not later than 15 minutes after such an occurrence.

(6) (i) All ventilating system provided for the purposes as required in sub-paragraphs (2), (3) and (4) shall be examined and inspected once every week by a responsible person. It shall be thoroughly examined and tested by a competent person once in every period of 12 months. Any defects found by such examinations or test shall be rectified forthwith.

(ii) A register containing particulars of such examination 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 Inspectorcum facilitator.

- 3. Waste from spinning machines.** - Waste yarn from the spinning machines shall be deposited in suitable containers provided with close fitting covers. Such waste shall be disposed off as quickly as possible after decontamination.
- 4. Lining of Dry Churns.** - The inside surface of all dry churns shall be coated with anon-stickly paint so that cellulose xanthate will not stick to the surface of the churn. Such coating shall be maintained in good condition.
- 5. Air monitoring.** - (1) To 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 results so obtained shall be entered in a register specially maintained for the purposes.
- (2) For the purpose of the requirement in sub-paragraph (1), instantaneous gas detector tubes shall not be used. Samples shall be collected over a duration of not less than 10 minutes and analysed by an approved method. The locations where such monitoring is to be done shall be as directed by the Inspector cum facilitator.
- (3) If the concentration of either carbon-di-sulphide or hydrogen sulphide exceeds the permissible limits for such vapour or gas as laid down in these rules, suitable steps shall be taken for controlling the concentrations in air of such contamination. A report of such occurrence 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 adolescents.** - No adolescent shall be employed or permitted to work in any fume process or in any room in which any such process is carried on.
- 8. Protective equipment.** - (1) To occupier shall provide and maintained in good condition protective equipment as specified in the table for use of persons employed in the processes referred to therein.

Table

Process	Protective Equipment
1. Dumping gloves and footwear all made of suitable materials.	Overalls, face-shields,
2. Spinning	Suitable aprons, gloves and footwear.
3. Process involving or likely to involve contact with viscose solution.	Suitable gloves and footwear.

## 4. Handling of sulphur

Suitable chemical

goggles.

5. Any other process involving contact with hazardous chemicals Protective equipment as may be directed by the inspector by an order in writing.

(2) A suitable room, rooms or lockers shall be provided exclusively for the storage of all the protective equipment supplied to workers and no such equipment shall be stored at any place other than the room, rooms or lockers so provided.

**9. Breathing apparatus.** - (1) There shall be provided in every factory where fume process is carried on, sufficient supply of-

- (a) breathing apparatus;
- (b) oxygen and a suitable appliances for it administration; and
- (c) life belts.

(2) (i) The breathing apparatus and other appliances referred to in sub-paragraph (1) shall be maintained in good condition and kept in appropriate locations so as to be readily available.

(ii) The breathing apparatus and other appliances referred to in clauses (a) and (b) of sub-paragraph (1) shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible persons.

(iii) A record of the maintenance or the condition of the breathing apparatus and other appliances referred to in sub-clause (1) shall be entered in a register provided for that purposes which shall be readily available for inspection by an Inspector.

(3) Sufficient number of workers shall be trained and periodically retrained in the use of breathing apparatus and administering artificial respiration so that at least 2 such trained persons would be available during all the working hours in each room in which fume process is carried on.

(4) Breathing apparatus shall be kept properly labeled in clean, dry, light-proof cabinets and if liable to be affected by fumes, shall be protected by placing them in suitable containers.

(5) No person shall be employed to perform any work specified in sub-paragraph (1) for which breathing apparatus is necessary to be provided under the sub-paragraph unless he has been fully instructed in the proper use of the equipment.

(6) No breathing apparatus provided in pursuance of sub-paragraph (1) which has been worn by a person shall be worn by another person unless it has been thoroughly cleaned and disinfected since last being worn and the person has been fully instructed in the proper use of that equipment.

10. Electric fitting. - All electric fitting in any room in which carbon-di-sulphide is produced, used or given off or is likely to be given off into the work environment, other than a spinning room, shall be of flame proof construction and all electric conductors shall either be enclosed in metal conduits or be lead-sheathed.

11. Prohibition relating to smoking, etc. - No person shall smoke or carry matches, fire or naked light or other means of producing a naked light or spark in a room in which fume process is carried on. A notice in the language understood by the majority of the workers shall be posted prominent locations in the plant prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked light or spark into such rooms :

Provided that fire, naked light or other means of producing a naked light of spark maybe carried on in such room only when required for the purposes of the process itself under the direction of responsible person.

12. Washing and bathing facilities. - (1) There shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the process covered by the schedule, adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 25 persons employed.

(2) The washing places shall have standpipes places at intervals of not less than one meter.

(3) Not less than one half of the total number of washing places shall be provided with bathrooms.

(4) Sufficient supply of clean towels made of suitable material shall be provided:

Provided that such towels shall be supplied individually for each worker if so ordered by the Inspector.

(5) Sufficient supply of soap and nail brushes shall be provided.

13. **Rest room.** - (1) A rest room shall be provided for the workers engaged in doffing operations of filament yarn spinning process.

(2) Such rest room shall be provided with fresh air supply and adequate seating arrangement.

14. **Cautionary notice and instructions.** - (1) The following cautionary notice shall be prominently displayed in each fume process rooms.

**"Cautionary Notice:**

1. Carbon-di-sulphide (CS<sub>2</sub>) and Hydrogen Sulphide (H<sub>2</sub>S) which may be present in this room are hazardous to health.

2. Follow safety instructions.

3. Use protective equipment and breathing apparatus as and when required.

4. Smoking is strictly prohibited in this area."

This notice shall be in a language understood by the majority of the workers and displayed where it can be easily and conveniently read. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice sodisplayed.

(2) Arrangements shall be made to instruct each workers 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 method to protect themselves. Such instructions shall be given on his first employment and repeated periodically.

(3) Simply and special instructions shall be framed to ensure that effective measures will be carried out in case of emergency involving escape of carbon-di-sulphide and hydrogen sulphide. Those instructions shall be displayed in the concerned areas and workers shall be instructed and trained in the actions to be taken in such emergencies.

15. **Medical Examination-**(1) The occupier of each factory to which this schedule applies, shall-

- (a) make arrangements of a qualified medical practitioner for medical surveillance of the workers employed therein ;and
- (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause(a).
- (2) The record of medical examination and appropriate tests carried out by the said medical officer shall be maintained which shall be kept readily available for inspection by the Inspector.
- (3) Every worker employed in the process of this shedule shall be examined by a medical officer. He shall issue fitness on **Form no.XIX**.
- (4) If at any time the medical officer is of the opinion that a worker is no longer fit for employment in the processes on the ground,that continuance involve danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register **Form no.XX**. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the said processes.The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated inthe opinion of the medical officer, in that case the person affected shall be suitablyrehabilitated.
- (3) No person who has been found unfit to work as said in sub-paragraph (6) shall bere-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.
- (4) The record of the examinations shall be maintained and kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

**16. 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 protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any he may specify therein.

### **Sub schedule 27**

#### **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 mould, made of sand, loam, moulding composition or other mixture of materials, or by shall moulding, or by centrifugal casting and any process incidental to such production;
- (b) the production of non-ferrous castings by casting metal in moulds made of sand, loam, metal, moulding composition or other material or mixture of materials, or byshell mouldings, die-casting (including pressure diecasting), centrifugal casting or continuous casting and any process incidental to such production; and
- (c) the melting and casting of non-ferrous metal for the production of ingots, billets, slabs or other similar products, and the stripping thereof; but shall not apply with respect to-
- (a) any process with respect to the smelting and manufacture of lead and the Electric Accumulators;
- (b) any process for the purposes of a printing worker; or

- (c) any melting process in which metal is obtained by a reducing operation or any process incidental to such operation; or
- (d) the production of steel in the form of ingots; or
- (e) any process in the course of the manufacture of solder or any process incidental to such manufacture; or
- (f) the 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;
- (b) "*cupola or furnace*" includes a receiver associated therewith;
- (c) "*dressing or fettling operations*" includes stripping and other removal of adherentsand cores, runners, risers, flash and other surplus metal from a casting and the production of reasonably clean and smooth surface, but does not include-(a) the removal of metal from a casting when performed incidentally in connection with the machining or assembling of castings after they have been dressed or fettled, or (b)any operation which is a knock-out operation within the meaning of this schedule;
- (d) "*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 inthe form of ingots) is carried on by casting in moulds made of sand, loam, moulding composition or other mixture of materials, or by shell moulding or by centrifugal casting in metal moulds lined with sand, or die casting including pressure die castings, together with any part of the factory in which any of the following processes arecarried on as incidental processes in connection with and in the course of, suchproduction, namely, the preparation and mixing of materials used in foundry process,the preparation of moulds and cores knock out operations and dressing or fettingoperations;
- (e) "*knock-out operations*" means all methods of removing castings from moulds and the following operations, when done in connection therewith, namely, stripping,coring-out and the removal of runners and risers;
- (f) "*pouring aisle*" means an aisle leading from a main gangway or directly from a cupola or furnace to where metal is poured into moulds.

**3. Prohibition of use of certain materials as parting materials.** - (1) 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 per cent by weight of the dry materials :

Provided that this prohibition shall not prevent the following being used as a part ingmaterial if the material does not contain an admixture of any other silica:-

- (a) Zirconium silicate (Zirocon)
- (b) Calcined china clay
- (c) Calcined aluminous fireclay
- (d) Sillimanite
- (e) Calcined or fused alumina
- (f) Olivine
- (g) Natural sand.

(2) Dust or other matter deposited from a fettling or blasting process shall not be used as a parting materials or as a constituent in a parting material.

**4. Arrangement and storage.** - For the purposes of prompting 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 purposes of such storage.

**5. Construction of floors.** - (1) 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.

(2) 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.

(3) All parts of the surface of the floor of any such indoor workplace which are of sand shall, so far as practicable, be maintained in an even and firm condition.

**6. Cleanliness of indoor workplaces.** - (1) All accessible parts of the walls of every indoor workplace in which the processes are carried on and of everything affixed to those walls shall be effectively cleaned by a suitable method to a height of not less than 4.2 metres from the floor at least once in every period of fourteen months. A record of the carrying out of every such effective cleaning in pursuance of this paragraph including the date (which shall be not less than five months nor more than nine months after the last immediately proceeding washing, cleaning or other treatment).

(2) Effective cleaning by a suitable method shall be carried out at least once every working day of all accessible parts of the floor of every indoor workplace in which the processes are carried on, other than parts which are of sand, and the parts which are of sand shall be kept in good order.

**7. Manual operations involving molten metal.** - There shall be provided and properly maintained for all persons employed on manual operations, involving molten metal with which they are liable to be splashed, a working space for that operation :-

- (a) which is adequate for the safe performance of the work; and
  - (b) which, so far as reasonably practicable, is kept free from obstruction.
- (2) Any operation involving the carrying by hand of a container holding molten metal shall be performed on a floor and parts of which where any person walks, while engaged in the operations shall be on the same level:

Provided that, where necessary to enable the operation to be performed without undue risk, nothing in this paragraph shall prevent the occasional or exceptional use of a working space on a different level from the floor, being a space provided with a safe means of access from the floor for any person while engaged in the operation.

**8. Gangways and pouring aisels.** - (1) In every workroom to which this paragraph applies constructed, reconstructed or converted for use as such after the making of this Schedule and, so far as reasonably practicable, in every other workroom to which this paragraph applies, sufficient and clearly defined main gangways shall be provided and properly maintained which-

- (a) shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;
- (b) shall be kept, so far as reasonably practicable, free from obstruction;
- (c) if not used for carrying molten metal, shall be at least 920 millimetres in width;
- (d) if used for carrying molten metal shall be-

- (i) where truck ladles are used exclusively, atleast 600 millimetres wider than the overall width of the ladle;
- (ii) where hand shanks are carried by not more than two men, atleast 920 millimetres in width;
- (iii) where hand shanks are carried by more than two men, atleast 1.2 metres in width;and
- (iv) where used for simultaneous travel in both directions by mean carrying hand shanks, atleast 1.8 metres in width.

(2) In workroom to which this paragraph applies constructed, reconstructed or converted for use as such after the making of this Schedule, sufficient and clearly defined pouring aisles shall be provided and properly maintained which-

- (a) shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;
- (b) shall be kept so far as reasonable practicable free from obstruction;
- (c) if molten metal is carried in hand ladles or bull ladles by not more than two men per ladles, shall be atleast 460 millimetres wide, but where any moulds alongside the aisle are more than 510 millimetres above the floor of the aisle, the aisle shall be not less than 600 millimetres wide;
- (d) if molten metal is carried in hand ladles or bull ladles by more than two men per ladle, shall be at least 769 millimetres wide;
- (e) if molten metal is carried in crane, trolley or truck ladles, shall be of a width adequate for the safe performance of the work.

(3) Requirements of sub-paragraphs (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, as the case may be, that part of a workroom has to be of sand.

(4) In this paragraph "workroom to which this paragraph applies" means a part of a ferrous or non-ferrous foundry in which molten metal is transported or used, and a workroom to which this paragraph applies shall be deemed, for the purposes of this paragraph to have been constructed, reconstructed or converted for use as such after the making of this schedule if the construction, reconstruction, or conversion thereof was begun after the making of this schedule.

**9. Work near cupolas and furnaces.** - No person shall carry out any work within a distance of 4 metres from a vertical line passing through the delivery and of any spout of a cupola or furnace, being a spout used for delivering molten metal, or within a distance of 2.4 metres from a vertical line passing through the nearest part of any ladle which is in position at the end of such a spout, except, in either case, where it is necessary for the proper use or 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.** - (1) Open coal, coke or wood fires shall not be used for heating or drying ladles inside a workroom unless adequate measures are taken to prevent, so far as practicable, fumes or other impurities from entering into or remaining in the atmosphere of the workroom.

(2) No open coal, coke or wood fires shall be used for drying moulds except in circumstances in which the use of such fires is unavoidable.

(3) Mould stoves, core stoves and annealing furnaces shall be so designed constructed, maintained and worked as to prevent, so far as practicable, offensive or injurious fumes from entering into any workroom during any period when a person is employed therein.

(4) All knock out operations shall be carried out-

- (a) in a separate part of the foundry suitably partitioned off, being a room or part in which, so far as reasonably practicable, effective and suitable local exhaust ventilation and a high standard of general ventilation are provided; or
- (b) in an area of the foundry in which, so far as reasonably practicable, effective and suitable local exhaust ventilation is provided, or where compliance with this requirement is not reasonably practicable, a high standard of general ventilation is provided.
- (5) All dressing or fettling operations shall be carried out-
- (a) in a separate room or in a separate part of the foundry suitably-partitioned off; or
- (b) in an area of the foundry set apart for the purpose; and shall, so far as reasonably practicable, be carried out with effective and suitable local exhaust ventilation or other equally effective means of suppressing dust, operating as near as possible to the point of origin of the dust.

**11. Maintenance and examination of exhaust plant.** - (1) All ventilation plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be properly maintained.

(2) 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 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. Any defect found on any such examination and test shall be immediately reported in writing by the person carrying out the examination and test of the occupier or manager of the factory.

**12. Protective equipment.** - (1) The occupier shall provide and maintain suitable portable equipment specified for the protection of workers-

- (a) 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;
- (b) approved respirators for workers carrying out any operations creating a heavy dust concentration which cannot be dispelled quickly and effectively by the existing ventilation arrangements.

(2) No respirator provided for the purposes of clause (1) has been worn by a person shall be worn by another person if it has not since been thoroughly cleaned and disinfected.

(3) Persons who for any of their time :-

- (a) work at a spout of or attend to, a cupola or furnace in such circumstances that material there from may come into contact with the body being material at such a temperature that its contact with the body would cause a burn; or
- (b) are engaged in, or in assisting with, the pouring of molten metal; or
- (c) carry by hand or move by manual power any ladle or mould containing molten metal; or
- (d) are engaged in knocking out operations involving material at such a temperature that its contact with the body would cause a burn; shall be provided with suitable footwear and gaiters which worn by them prevent, so far as reasonably practicable, risk of burns to his feet and ankles.

(4) Where appropriate, suitable screens shall be provided for protection against flying (including splashes of molten metal and sparks and chips thrown off in the course of any process).

(5) The occupier, shall provide and maintain suitable accommodation for the storage and make adequate arrangement for cleaning maintaining of the protective equipment supplied in pursuance of this paragraph.

(6) Every person shall make full and proper use of the equipment provided for his protection in pursuance of sub-paragraphs (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.** - (1) There shall be provided and maintained in clean state and good repair for the use of all workers employed in the foundry-

(a) a wash place under cover with either-

(i) a trough with impervious surface fitted with a waste pipe without plug, and of sufficient length to allow atleast 60 centimetres for every 10 such persons employed at any one time and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 60 centimetres; or

(ii) atleast one tap or stand pipe for every 10 such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 1.2 metres apart; and

(b) not less than one half of the total number of washing places provided under clause (a) shall be in the form of bath rooms.

(c) a sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.

(2) The facilities provided for the purposes 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 skimmings.** - Dross and skimmings removed from molten metal or taken from a furnace shall be placed forthwith in suitable receptacles.

**15. Disposal of waste.** - Appropriate measures shall be taken for the disposal of all waste products from shell moulding (including waste burnt sand) as soon as reasonably practicable after the castings have been knocked-out.

**16. Material and equipment left out of doors.** - All material and equipment left out of doors (including material) and equipment so left only temporarily or occasionally shall be so arranged and placed as to avoid unnecessary risk. There shall be safe means of access to all such material and equipment and, so far as reasonably practicable, such access shall be by roadways or pathways which shall have a firm and even surface and shall, so far as reasonably practicable be kept free from obstruction.

**17. Medical Examination-**(1) the occupier of every factory to which the Schedule applies, shall-

(a) Make arrangements of a qualified medical practitioner for medical surveillance of the workers employed therein; and

(b) Provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).

(2) Every worker employed in the process of this shedule shall be examined by a medical officer. He shall issue Fitness on **Form no.XIX**.

(3) 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 shall make a record of his findings in the said certificate and the health register **Form no.XX**. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the said processes. The person declared unfit in such circumstances shall be provided with alternate placement facility unless he is fully incapacitated in the opinion of the medical officer, in that case the person affected shall be suitably rehabilitated.

(4) No person who has been found unfit to work as said in sub-paragraph (3) 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.

(5) The record of the examinations shall be maintained and kept readily available for inspection by the Inspector cum facilitator and Medical Inspector cum facilitator.

**18. 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 protection of the workers in the factory, the Chief Inspector cum facilitator may by a certificate in writing, exempt such factory from all or any of such provisions subject to such condition, if any, he may specify therein.

### Sub schedule 28

#### **“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:

1. Stone Crushers
2. Gem and Jewellery
3. Slate Pencil Making
4. Agate Industry
5. Cement Industry
6. Pottery
7. Glass Manufacturing
8. Quartz/ quartzite
9. Any other minerals/rocks containing free silica
10. Grinding, Pulverizing, packing, handling of any type of minerals including mica
11. Fly ash bricks and other article manufacturing and handling

**1. Application** - This Schedule shall apply to all factories or parts of factories in which the above said manufacturing activity containing free silica is carried on.

**2. Definitions** - For the purpose of this Schedule –

- (a) "Manipulation" means crushing, breaking, chipping, dressing, grinding, sieving, mixing, grading or handling of stone or any other material containing free silica or any other operation involving such stone or material;
- (b) "Stone or any other material containing free silica" means a stone or any other solid material containing not less than 5% by weight of free silica.

#### **3. Preventive Control Measures**

No manipulation shall be carried out in a factory or a part of factory unless the following preventive control measures are adopted, namely -

##### **3 (I) Engineering Control Measures**

###### **(1) Wet Methods:**

- (a) Airborne Silica Dust should be minimized or suppressed by applying water to the process or clean up;
- (b) Water should be provided for drilling or sawing of concrete or masonry;

###### **(2) Ventilation:**

- (a) An effective Local exhaust system should be provided and maintained to control/ remove silica dust from industrial processes.

- (b) Dilution/ventilation may be used to reduce free silica dust concentration to below the permissible limits in large areas.
- (c) Dust collectors/HEPA filter should be set up so that dust shall be removed from the source and all transfer points to prevent contaminating work areas.
- (d) Ventilation system should be kept in good working conditions.

**(3) Isolation:**

- (a) Containment methods should be used while carrying out sand blasting.
- (b) Cabins of vehicles or machinery cutting & drilling that might contain free silica should be enclosed and sealed.

**(4) Dust Control:**

- (a) Vacuum System with High Efficiency Particle Air (HEPA) filter shall be used to remove dust from work areas and all transfer points.
- (b) The belt conveyors transferring crushed material shall be totally enclosed throughout its length.

Provided that such control measures as above said are not necessary if the process or operation itself is such that level of dust created and prevailing does not exceed the permissible limit of exposure specified in the Second Schedule of the Act.

**3. (II) Medical Control Measures**

- (1) The occupier of every factory in which a worker employed in the processes specified in Sub Rule 1, shall ensure that every worker employed be examined by a Medical Inspector of Factories/Certifying Surgeon within 15 days of his first employment. Such medical examination shall include pulmonary function test and chest X-ray – posterior Anterior tenor (PA) view to be compared with standard ILO Radiographs on Pneumoconiosis. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
- (2) Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every twelve months. Such re-examination shall, Wherever the Certifying Surgeon considers appropriate, include all the tests, as specified in sub-paragraph (1) except chest X-ray which shall be read by a radiologist specialized/trained in the field of reading ILO Radiographs on Pneumoconiosis and the chest X-ray which shall be carried out at least once in 3 years.
- (3) Every worker, employed in any of the aforesaid processes on the date on which the schedule comes into force, shall be radiologically examined by the qualified Radiologist at the cost of the occupier using a standard size X-ray plates and the power of the X-ray machine shall be more than 300 milli ampere (mA). The report of such X-ray shall be submitted to the Medical Inspector of Factories/Certifying Surgeon/Chief Inspector within three months of the said date.
- (4) If at any time the Medical Inspector of Factories/Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said Certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities, unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.

(5) 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 Certifying Surgeon, after further examination again certifies him fit for employment in those processes.

(6) if a worker already in employment and declared unfit by the Medical Inspector of Factories/ Certifying Surgeon shall not be allowed to work on any of the Processes specified in sub rule 1 unless he has been examined again along with standard size chest X-ray plate from a qualified Radiologist, at the cost of the occupier and has been certified to be fit to work on the said processes again.

(7) For the purpose of medical supervision, by the medical practitioner/ certifying surgeon so appointed by the occupier shall be provided for his exclusive use, a room in the factory premises which shall be properly cleaned, adequately lighted, ventilated and furnished with a screen, a table with office stationary, chairs and other facilities and other instruments including X-ray arrangements for such examinations and such other equipments as may be prescribed by the Chief Inspector from time to time. The medical practitioner so appointed shall perform the following duties.

- (a) maintain health register,
  - (b) undertake medical supervision of persons employed in the factory;
  - (c) look after health, education and rehabilitation of sick, injured or affected workers;
  - (d) carry out inspection of work rooms where dangerous operations are carried out and advise the management, the measures to be adopted for the protection of health of the workers employed therein.
- (8) The Health Records of the workers exposed to silicosis, 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) The record of medical examinations and appropriate tests carried out by the said medical practitioner, a certificate of fitness and health shall be maintained in separate register approved by the Chief Inspector of Factories, Which shall be kept readily available for inspection by the Inspector and shall be produced on demand.

### 3 (III) Administrative Control Measures

**(1) Work place/Environment Monitoring:** The occupier shall ensure work place/ environment monitoring to be performed, to determine magnitude of exposure/ concentration to evaluate engineering controls, selecting respiratory protection, work practices and the need for medical surveillance.

- (a) Exposure/ concentration measurements should be made in the employee's actual breathing zone.
- (b) Total sampling time shall be at least 7 hours.
- (c) Work place/Environment Monitoring shall be repeated quarterly.
- (d) The report of dust sampling by occupier shall be made available to the public.

**(2) Training/Awareness:** Workers shall be trained in the following:-

- (a) Health effects of free silica dust exposure.
- (b) Operation and material that produce free silica dust hazards.
- (c) Engineering controls and work practice controls that reduce dust concentration.
- (d) The importance of good housekeeping and cleanliness.
- (e) Proper use of personal protective equipment such as respirators etc.
- (f) Personal hygiene practices to reduce exposure.

**(3) House Keeping: Maintenance of floors**

- a) All floors or place where fine dust is likely to scatter and whereon any person has to work or pass shall be of impervious material and maintained in such conditions that they can be thoroughly

cleaned by a moist method or any other method which would prevent dust being airborne in the process of cleaning once at least during each shift.

- b) For this purpose dry sweeping or compressed air shall be used for cleanup of dust or wet methods of vacuum system with a HEPA filter shall be used.
- c) Dust on overhead ledges and equipment should be removed before it becomes air borne due to vibration of traffic and random air current.

**(4) Change room and washing facilities:**

- (a) Washing and bathing facilities shall be conveniently located at a place easily accessible to the workers.
- (b) Cloak room with individual lockers shall be provided for employees to store uncontaminated clothing.
- (c) Workers shall take bath and change the work clothes before they leave the work site.
- (d) Work clothes shall not be cleaned by blowing or shaking.
- (e) Eating/lunch areas shall be located away from exposed areas.

**(5) Display of Notices:**

- (a) Warning signs/Posters shall be displayed conspicuously in prominent place.
- (b) The warning signs/poster shall contain the Hazards and precautions to be taken.
- (c) The display of notice shall be in the local language and also in the language understood by the majority of the workers.

**(6) Personal Protective Equipment**

The occupier of the every factory to which this schedule apply shall provide the following PPEs as per relevant National Standards or International Standards and as applicable to a given work place.

- (a) Dust respirator.
- (b) HEPA filter respirator or fume respirator.
- (c) HEPA filter respirator with full face piece.
- (d) Self contained breathing apparatus (SCBA)
- (e) Supplied air respirator with a full-face piece, helmet or hood.
- (f) SCBA with full-face piece.
- (g) Powered air-purifying respirator with a HEPA filter.

**4. Prohibition relating young person's** -No young person shall be employed or permitted to work in any of the operations involving manipulation or at any place where such operations are carried out.

**5. (1) Exemptions-** If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or in frequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may in his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

(2) The notification of Silicosis and free silica related occupational diseases by Medical Practitioner/certifying surgeon should be strictly enforced and in case of any Violation, the Medical Practitioner/certifying surgeon shall be liable to be prosecuted under Sec. 12(3) of the OSH 2021.

**TEXTILE MACHINERY EXCEPT MACHINERY USED IN JUTE MILLS.**

(1) *Application.* – The requirements of this schedule shall apply to machinery in factories engaged in the manufacture or processing of textiles other than Jute textiles. The schedule would not apply to 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. Calendars may have two or more rollers, or bowls, some of which may be heated.

(b) “Embossing calendar” means a calendar with two or more rollers, one of which is engraved for producing figure effects of various kinds on a fabric.

(c) “Card” means a machinery consisting of cylinders of various sizes and in certain cases flats covered with card clothing and set in relation to each other so that fibres in staple form may be separated into individual relationship. The speed of the cylinders and their direction of relation may vary. The finished product is delivered as a silver. Cards include the revolving flat card, the roller and clearer card, etc.

(d) “Card clothing” means the material with which the surface of the cylinder, deffer, flats, etc. of a card are covered and consists of a thick foundation material made of, either textile fabrics, through which are pressed many fine closely spaced specially bent wires, or mounted saw toothed wire.

(e) “Comber” means a machine for combing fibres of cotton, wool etc. The essential parts are a 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. All tangled fibres, short fibres and nips are removed and the long fibres are laid parallel.

(f) “Combing machine” includes a general classification of machinery including combers, silver lap machines, ribbon lap machines, and gill boxes but excluding cards.

(g) “Rotary staple cutter” means a machine consisting of one or more rotary blades used for the purpose of cutting textiles fibres into staple lengths.

(h) “Garnet machine” means any of a number of types of machines for opening hard twisted waste of wool, cotton, silk etc.

*Note.* – Essentially, such machines consists of a licker is one or more cylinders, each having a complement worker and stripper rolls; and a fancy rool and doffer. The action of such machine is some that like that a wool card, but it is much more severe in that the various rolls are covered with garnett wire instead of card clothing.

(i) “Gill box” means a machine used in the worsted system of manufacturing yarns.

*Note.* – Its function is to arrange fibres in parallel order. Essentially, it consists of a pair of feed rolls and a series of followers where the followers move at faster surface speed and perform a combing action.

(j) “In running roll” means any pair of rolls or drums between which there is a “Nip”.

(k) “Interlocking arrangement” means a device that prevents the setting in motion of dangerous part of any machine or the machine itself while the guard, cover door or other measures provided to safeguard against danger is open or unlocked or not in position.

*Note.* – Which will also hold the guard, cover or door closed and locked while the machine or the dangerous part is in motion, otherwise, dangerous part of any machine or the machine itself will stop or will not be set in motion.

(l) “Kier” means a large metal vat, usually a pressure type in which Fabrics may be boiled out, bleached, etc.

(m) “Ribbon lapper” means a machine or a part of a machine used to prepare laps for feeding a cotton comb.

**Note.** – Its purpose is to provide a uniform lap in which fibres have been straightened as much as possible.

(n) “Silver lapper” means a machine or part of 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.

(o) “Loom” means a machine for effecting the interlocking of two series of yarns crossing one another at right angles. The warp yarns are wound on a warp beam and pass through heddles and reeds. The filling is shot across in a shuttle and settled in place by reeds and slay and the fabric is wound on a cloth beam.

(p) “Starch mangle” means a mangle that is used specifically for starching cotton goods.

**Note.** – It commonly consists of two large rolls and a shallow open vat with several immersion rolls. The vat contains the starch solution.

(q) “Water mangle” means a calendar having two or more rolls used for squeezing water from fabrics before drying. Water mangles may also be used in other ways during the finishing of various fabrics.

(r) “Mule” means a type of spinning frame having a head stock and carriage as its two main sections. The head stock is stationary. The carriage is movable and it carries the spindles which draft and spin the roving into yarn. The carriage extends over the whole width of the machine and moves slowly towards and away from the head stock during the spinning operation.

(s) “Nip” is the danger zone between the rolls or drums which by virtue of their positioning and movement create a nipping hazard.

(t) “Openers and pickers” means a general classification of machinery which includes breaker pickers, intermediate pickers, finisher pickers, single process pickers, multi process pickers, willow machines, card and picker waste cleaners, thread extractors, shredding machines, roving waste openers, shoddy pickers, bale breakers feeders, vertical openers, lattice cleaner, horizontal cleaners and any similar machinery equipped with either cylinders, screen section, calendar section, rolls or beaters used for the preparation of stock for further processing.

(u) “Paddler” means a trough for solution and two more squeeze rolls between which cloth passes after being passed through a mordant or dye bath.

(v) “Planting Machine” means a machine used to pay cloth into folds of regular length for convenience of subsequent process or use.

(w) “Roller Printing Machine” means a machine used for printing fabrics consisting of a large central cylinder, of pressure bowl, around the lower part of the perimeter of which is having a color through a furnish roller, doctor blades, etc.

(x) "Continuous bleaching ranges" means a machine for bleaching of cloth in rope or open width from with the following arrangement. The cloth, after wetting out, pass through a squeeze roll into a saturator containing a solution of caustic soda and then to an enclosed J-box. A V-shaped arrangement is attached to the front part of the J-box for uniform and rapid saturation of the cloth with stem before it is packed down in the J-box. The cloth, in a single stand rope, passes over a guide roll down the first arm of the "V" and up the second. Stem is injected into the "V" at the upper end of the second arm so that the cloth is rapidly saturated with the stem at this point. The J-box capacity is such that cloth will remain hot for a sufficient time to complete the scouring action.

It then passes a series of washers with a squeeze roll in between. The cloth then passes through a second set of saturator J-box, and washer, where it is treated with peroxide solution. By sight modification of the form of the unit, the same process can be applied to open width cloth.

(y) "Mercerizing range" means a 3-bowl mangle, a tenter frame, and a number of boxes for washing and scouring. The whole set up is in a straight line and all parts operate continuously. The combination is used saturate the cloth with sodium hydroxide, stretch it while saturated, and washing out most of the caustic before releasing tension.

(z) "Sanforizing machine" means a machine consisting of a large steamheated cylinder and endless, thick woollen felt blanket which is in cloth contact with the cylinder for most of its perimeter, and an electrically heated show which presses the cloth against the blanket while the latter is in a stretched condition as it curves around feed in roll.

(aa) "Shearing machine" means a machine used for shearing cloth, Cutting action is provided by a number of steel blades spirally mounted on a roller. The roller relates in close contact with a fixed ledger blade. There may be from one to six such rollers, on a machine.

(ab) "Singing machine" means a machine which comprises heated roller, plate, or an open gas flame. The cloth or yarn is rapidly passed over the roller or the plate or through the open gas flame to remove fuzz or hairiness on yarn or cloth by burning.

(ac) "Slasher" means a machine used for applying a size misture to wrap yarn. Essentially it 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 and for winding the yarn on the loom beams.

(ad) "Tenter frame" means a machine for drying cloth under tension.

*Note.* – It essentially consists of a pair of endless travelling chains fitted with clips of the pins and carried on tracks. 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.

(ae) "Wrapper" means a machine for preparing and arranging the yarns intended for the wrap of a fabric, specifically a beam wrapper.

(3) *General Safety Requirements.* – (a) Every textile machine shall be provided with individual mechanical or electrical means for starting and stopping all such machines. Belt shifter on machines driven by belts and shafting should be provided with a belt shift lock or an equivalent suitable 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, sprocket wheels, and other dangerous moving parts of machinery which either form part of the machinery or are used in association with it shall be securely fenced by

the safe guards of substantial construction which shall be constantly maintained and kept in position while the parts of the machinery they are fencing are in motion.

(4) *Openers and pickers.* – (a) In all openers and pickers machinery, beaters and other dangerous parts shall be securely fenced by suitable guards so as to prevent contact with them. Such guards and doors or covers of openings giving access to any dangerous part of the machinery shall be provided with interlocking arrangement:

Provided that on the case of doors of opening giving access to any dangerous part, other than the beater covers, instead of the interlocking arrangement, such openings may be so fenced by guards which prevents access to any such dangerous part and which is either kept positively locked in the position of fixed in such a manner that it cannot be removed without the use of hand tools.

(b) The feed rolls on all openers and pickers machinery shall be covered with a guard designed to prevent the operator from reaching the nip while the machinery is in operation.

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

Provided that the foregoing provision shall not apply to the machines equipped with the automatic lap forming devices:

Provided further that any such machine equipped with an automatic lap forming device shall not be used unless the automatic lap forming device 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 later requirement in respect of 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 whose names have been recorded in the register prescribed in this behalf as required in sub-section (i) of section 22 of Factories Act, 1948.

(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 to dismantle the interlocking mechanism. Such an arrangement shall be used only for stripping or grinding operations.

(6) *Garnett Machine.* – (a) Garnett Maker-in shall be enclosed.

(b) Garnett fancy tools shall be enclosed by guards. These shall be installed in way that keeps workers rolls reasonably accessibly for removal or adjustment.

(c) The underside of the garnett shall be guarded by a screen mesh or other form of enclosure to prevent access.

(7) *Gill Boxes.* – (a) The feed shall be guarded so as to prevent fingers being caught in the pins of the intersecting fallers.

(b) All nips of in-running rolls shall be guarded by suitable nip guards conforming to the following specifications.

*Note.* – 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 that the fingers of any person shall not reach that point through that opening and in any circumstances, the maximum width of the opening shall not exceed the following:

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

(8) *Silver and Ribbon Lappers.* – The calendar drums and the lap school shall be provided with a guard to prevent access to the nip between the in-running rolls.

(9) *Speed Frames.* – Jack box wheels at the head stock shall be guarded and the guard shall have interlocking arrangement.

(10) *Spinning Mules.* – Wheels on spinning rule carriages shall be provided with substantial wheel guards extending to within 6 mm. of the rails.

(11) *Warpers.* – Swiveled double-bar gates shall be installed on all warpers operating in excess of 410 meters/min. These gates shall have interlocking arrangement, except for the purpose of inching or jogging:

Provided that the top and bottom bars of the gate shall be at least 1.05 and 0.53 meters high from the floor or working platforms and the gate shall be located 38 mm. from the vertical tangement to the beam head.

(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 (b).

(ii) When slashers are operated by control levers, these levers shall be connected to a horizontal bar or treadle located not more than 100 cm. above the floor to control the operation from any point.

(iii) Slashers operated by push button controls 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. If calendar rolls are used, additional buttons shall be provided at both size of the machine at points near the nips, except when slashers are equipped with an enclosed dryer.

(b) *Enclosed hot air dryer.* – (1) All open nips of the top squeezing rollers shall be guarded by nip guard conforming the requirements in clause 7 (b).

(ii) When slashers are operated by control levers, 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 on both the sides of the machines at intervals spaced not more than 1.83 meters on centers.

(13) *Looms.* – Each loom shall be equipped with suitable guards designed to minimise the danger from flying shuttle.

(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 suitable locking arrangement to enable the said person to lock the valve securely in the close 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 area 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 Machine.* – All revolving blades on shearing machines shall be guarded so that the opening between the cloth surface and the button of the guard will not exceed to 10 mm.

(16) *Continuous Bleaching Range (Cotton and Rayon).* – The nip of all in-running rolls on open width bleaching machines rolls shall be protected with a guard to prevent the worker from being caught at the nip. 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 machine frame at 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 in clause 7 (b).

(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 requirement in clause 7 (b) shall be provided to all dangerous in running-rolls.

(20) *Centrifugal Extractors.* – (a) Each extractor shall be provided with a operated brake to quickly stop the basket, and the guard shall have inter-locking 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 cut off.

(21) *Squeezer of wringer extractor, water mangle, starch mangle, back washer (worsted yarn), crabbing machines and decatizing machines.* – All in-running rolls shall be guarded with nip guards conforming the requirements in clause 7 (b).

(22) *Sanforizing and palmer machine.* – (a) Nip guards shall be provided on all accessible in-running rolls and these shall conform the requirements in clause 7 (b).

- (b) Access from the sides to the nips of in-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. It shall operate readily whether pushed or pulled. The safety trip shall not be more than 170 cm. above the level at which the operator stands and shall be readily accessible.
- (23) *Rope washers.* – (a) Splash guards shall be installed on 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. It shall operate readily whether pushed or pulled. This 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 tumber, 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 shell is open, and which will also prevent the outer door on the cases or shell from being opened without shutting off the power and the cylinder coming to a stop. This 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 on covers of the inner and outer cylinder or shell while it is being loaded or unloaded.
- (25) *Printing Machine (Roller Type).* – All in-running rolls be guarded by nip guards conforming to the requirement in clause 7 (b).
- (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) *Plaiting Machines.* – Access to the trap between the knife and card bar shall be prevented by a suitable 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 shall be so designed and so located that it will prevent the handle from travelling beyond the vertical position should be handled slip from the operators hand when the pawl has been released from the teeth of the take-up gear.
- (30) *Flat-work Ironer.* – Each flat-work or coller 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 one 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 vertical guard or 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 be not less than 1.83 metres.]

**Sub schedule 30****COTTON GINNING.**

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

**Sub schedule 31****Operation Involving Load Lifting machines, chains, ropes and lifting tackles and work on fragile roofs**

(1) In any factory the following provisions shall be complied with in respect of every lifting machine (other than a hoist and lift) and every chain, rope and lifting tackle for the purpose of raising or lowering persons, goods or materials:—

(a) “lifting machine” means a crane, crab, winch, teagle, pulley block, gin wheel, transporter or runway;

(b) “lifting tackle” means any chain sling, rope sling, hook, shackle, swivel, coupling, socket, clamp, tray or similar appliance, whether fixed or movable, used in connection with the raising or lowering of persons, or loads by use of lifting machines.

(i) all parts, including the working gear, whether fixed or movable, of every lifting machine and every chain, rope or lifting tackle shall be—

(ii) of good construction, sound material and adequate strength and free from defects; (iii) properly maintained; and (iv) thoroughly examined by a competent person at least once in every period of twelve months, or at such intervals as the Chief Inspector may specify in writing; and a register shall be kept containing the prescribed particulars of every such examination;

(c) no lifting machine and no chain, rope or lifting tackle shall, except for the purpose of test be loaded beyond the safe working load which shall be plainly marked thereon together with an identification mark and duly entered in the prescribed register; and where this is not practicable, a table showing the safe working loads of every kind and size of lifting machine or chain, rope or lifting tackle in use shall be displayed in prominent positions on the premises;

(d) while any person is employed or working on or near the wheel track of a travelling crane in any place where he would be liable to be struck by the crane, effective measures shall be taken to ensure that the crane does not approach within <sup>1</sup>[six metres] of that place.

(2) No lifting machine and no chain, rope or lifting tackle, except fibre rope or fibre rope sling shall be taken into use in any factory for the first time in that factory unless it has been tested and all parts have been thoroughly examined by a competent person and a certificate of such a test and examination specifying the safe working load or loads and signed by the person making the test and the examination, has been obtained and is kept available for inspection:

(2) (a) Every crane fitted with a derricking jib shall –

- (i) have plainly marked upon it the safe working load at various radii of the jib and the maximum radius at which the jib may be worked; and
  - (ii) be fitted with an accurate indicator, clearly visible to the driver, showing the radius of the jib at any time and the safe working load corresponding to that radius.
- (b) No jib crane having either a fixed or a derricking jib shall be used after one year of the coming into effect of this rule unless it is fitted with an accurate automatic indicator which –
- (i) indicates clearly to the driver or person operating the crane when the load being carried or lifted approaches the safe working load of the crane for the radius of the jib at which the load is being carried or lifted; and
  - (ii) gives an efficient sound signal when the load being carried or lifted is in excess of the safe working load of the crane at that radius;

Provided that if a table is showing the safe working loads at various radii of the jib is kept attached to the crane the requirements of clause (b) shall not apply to –

- (i) any guy derrick, crane, being a crane of which the mast is held upright solely by means of ropes with the necessary fittings and tightening screws;
- (ii) any hand crane used solely for dismantling another crane;
- (iii) any crane having a maximum safe working load of one ton or less.

(3) A table showing the safe working loads of every kind and size of chain, rope or lifting tackle in use, and, in the case of a multiple sling, the safe working load at different angles of the legs shall be posted in the store in which the chains, ropes or lifting tackles are kept and in prominent positions on the premises and no rope, chain or lifting tackles not shown in the table shall be used. The foregoing provisions of this paragraph shall not apply in respect of any lifting tackle if the safe working load thereof, or in the case of a multiple sling, the safe working load at different angles of the legs, is plainly marked upon it.

(4) Every travelling jib-crane on rails shall be provided with guards to remove any loose materials from the track.

(5) (a) The register to be maintained under sub rule(2) shall contain the following particulars, namely:

- (i) name of the occupier of the factory;
- (ii) address of the factory;
- (iii) distinguishing number or mark, if any; and chain, description sufficient to identify the lifting machine, rope, or the lifting tackle;
- (iv) date on which the lifting machine, chain, rope or lifting tackle was first taken into use in the factory;
- (v) date and number of the certificate relating to any test and examination made under sub-rules (iv) with the name and address of the person who issued the certificate;
- (vi) date of each periodical thorough examination and the name of the person by whom it was carried out;
- (vii) date of annealing or other heat treatment of the chain and other lifting tackle made under sub-rule (7) and the name of the person by whom it was carried out;

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

The register shall be kept readily available for inspection.

- (b) All certificates obtained under sub-rules (1) and (9) and reports of all examinations conducted under this rule shall be maintained in a register and shall be kept readily available for inspection.

- (6) All rails on which a travelling crane moves and every track on which the carriage of a transporter or runway move shall be of proper size and adequate strength and have an even running surface and every such rail or track shall be properly laid, adequately supported and properly maintained and provided with effective stops at the end.

- (7) All chains and lifting tackles, except a rope sling shall unless they have been subjected to such other heat treatment as may be approved by the Chief Inspector of Factories, be effectively annealed under the direct supervision of a competent person at the following intervals, namely: -

- (i) all chains, slings, rings, hooks, shackles and swivels used in connection with molten metal or molten slag or when they are made of half inch bar or smaller, once at least in every six months;
- (ii) all other chains, rings, hooks, shackles and swivels in general use once at least in every 12 months;

Provided that chains and lifting tickles not in frequent use shall, subject to the Chief Inspector's approval, be annealed only when necessary and particulars of such annealing shall be entered in a register prescribed under sub-rule (5).

- (8) Nothing in the foregoing sub-rule (7) shall apply to following classes of chains and lifting tackles, namely: -

- (i) chains made of malleable cast iron;
- (ii) plate link chains;
- (iii) chains, rings, hooks, shackles, and swivels made of steel or of a non-ferrous metal;
- (iv) pitched chains, working on sprocket or pocketed wheel;
- (v) rings, hooks, shackles and swivels permanently attached to pitched chains, pulley blocks, or weighing machines;
- (vi) hooks and swivels having screw threaded part or ball bearing or other case hardened parts;
- (vii) socket shackles secured to wire ropes by white metal capping;
- (viii) Bordeaux connections.

Such chains and lifting tackles shall be thoroughly examined by a competent person once at least in every twelve months, and particulars entered in the register kept in accordance with sub-rule(5).

- (9) All lifting machines, chains, ropes and lifting tackles except a fibre rope or fibre rope sling, which have been lengthened, altered or repaired by welding or otherwise, shall before again taken into use, be adequately retested and re-examined by a competent person and a certificate of such test examination be obtained and particulars entered in the register kept in accordance with sub-rule (5).

- (10) No person under eighteen years of age and no person who is not sufficiently competent and reliable shall be employed as driver of a lifting machine whether driven by mechanical power or otherwise or to give signals to a driver.
- (11) Where there are more than one lifting machines, chains, ropes and lifting tackles in a factory, each one of them should be given a distinguishing mark or number for the purpose of identification.
- (12) Where in the opinion of the State Government, compliance with any of the provisions of this rule is considered unnecessary or impracticable, the Chief Inspector may, subject to the approval of the State Government, by order in writing, exempt any lifting machine or lifting tackle there from, subject to such conditions as may be specified in the said order:

Provided that the Chief Inspector may subject to the approval of the State Government, rescind or modify any such order whenever he considers it necessary without assigning any reason.

- B.** Passage ways and clearance for over-head travelling cranes. – (1) (a) Passage-way shall be provided along and adjacent to every rail-track of every over-head travelling crane of such width that there is a clear space of not less than 50 c.m. between any part of any crane operating on the track and any column, fixture or fixed structure, so that no person working or walking over the passage-way may be struck by any part of the crane.
- (b) There should be railings at a height of at least 90 cm. from the floor of passage-way on both sides, with at least two rails and with a toe board at a height of at least 10 c.m. from the floor:

Provided that if there is a wall or sheeting on one side of the walk-way the railings may be provided on only the other side.

- (c) Safe access ladders with hand rails shall be provided at convenient places and at suitable frequent intervals so that the crane driver or any other person going up the crane or crane track may not have to walk long distances on the passage-way.
- (d) Where there are more than one cranes operating in the same way as on the same run-way, the number of access ladders shall be provided in consideration of the easy and safe accessibility to the different cranes.
- (2) For the repair of the track equipments of cranes and for greater convenience and safety in changing track wheels if there is no sufficient distance between the end of the crane and the wall of the building, special recesses or platform with safe access ladders shall be built at different places in the building.
- (3) The vertical clearance between the floors of crane bridge or trolley foot-walks or platforms on travelling cranes and over-head trusses, structural parts or any other permanent fixture shall not be less than two meters.

(4) In respect of any over-head travelling crane already in operation on the date of coming into force of this rule in any factory, the Chief Inspector may, by an order in writing, direct such measures to be taken within a specified time as he may consider practicable and necessary to prevent accidents due to the movement of cranes.

(5) The Chief Inspector may, with the approval of the State Government, exempt any over-head travelling crane in any factory from the operation of any of the provisions of this rule subject to such conditions as he may specify in writing.

**C. Fragile roofs—Provision of crawling boards, etc. –** (1) In any factory no person shall be allowed to stand, walk or do any work or go for any purpose whatsoever, on a roof or ceiling covered with or constructed of sheets, plain, corrugated or otherwise, made of cement, cement mixed with asbestos or with any other material or any other similar material in respect of which there may be danger of the sheet-breaking due to the weight of a man, and no person shall be allowed to work or go for any purpose whatsoever on a slopping roof, unless: -

- (a) suitable and sufficient safety devices like ladders, duck ladders, access boards and crawling boards securely supported and fixed are provided and used;
- (b) suitable and sufficient parapet wall or railing or any other equally effective device to prevent the person from falling from the slopping roof is provided:
- (c) a notice in bold letters warning that the roof was of fragile material and was dangerous and that no person should go on the roof unless full protective measures have been taken is displayed at such a prominent place and in such a manner as to attract immediate attention; and
- (d) a permit to work on the roof has been issued to the person by a responsible person duly authorised for this purpose by the Manager.

(2) All preparatory work like cutting, trimming, piercing, etc., of the sheets or of any other material or articles to be used on a roof shall be carried out on the ground and carrying out of any such work on the roof shall be totally prohibited and shall not be allowed.”

### **Sub schedule 32**

#### **WOOD-WORKING MACHINERY.**

1. *Definitions.* – For the purposes of this Schedule –

- (a) Wood-working machine means a circular saw, band-saw, planning machine, chain mortising machine or vertical spindle moulding machine operating on wood or cork or any other article except metal.
- (b) Circular saw means a circular saw working on a bench (including a rack bench) but does not include a pendulum or similar saw which is moved towards the wood for the purpose of cutting operation.
- (c) Band saw means a band saw, the cutting portion of which runs in a vertical direction but does not include a long saw or band resawing machine.
- (d) Planning machines means a machine for over hand planning or for thicknessing or for both operations.

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

3. *Space around machines.* – The space surrounding every wood-working machine in motion shall be kept free from obstructions.

4. *Floors.* – The floor surrounding every wood-working machine shall be maintained in good and level condition, and shall not be allowed to become slippery, and as far as practicable shall be kept free from chips or other loose materials.

5. *Training and supervision.* – (1) No person shall be employed at a wood-working machine unless he has been sufficiently trained to work that class of machine, or unless he works under the adequate supervision of a person who has a thorough knowledge of the working of the machine.

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

6. *Circular Saws.* – Every circular saw shall be fenced as follows: -

(a) Behind and in direct line with the saw there shall be a riving knife, which shall have a smooth surface, shall be strong, rigid and easily adjustable, and shall also conform to the following conditions: -

(i) The edge of the knife nearer the saw shall form an arc of a circle having a radius not exceeding the radius of the largest saw used on the bench.

(ii) The knife shall be maintained as close as practicable to the saw, having regard to the nature of the work being done at the time, and at the level of the bench table the distance between the front edge of the knife and the teeth of the saw shall not exceed half an inch.

(iii) For a saw of a diameter of less than 24 inches, the knife shall extend upwards from the bench table to within one inch of the top of the saw, and for a saw of a diameter of 24 inches or over shall extend upwards from the bench table to a height of at least 9 inches.

(b) The top of the saw shall be covered by a strong and easily adjustable guard, with a flange at the side of the saw farthest from the fence. The guard shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.

(c) The part of the saw below the bench table shall be protected by two plates of metal or other suitable material one on each side of the saw; such plates shall not be more than 6 inches apart, and shall extend from the axis of the saw outwards to a distance of not less than two inches beyond the teeth of the saw. Metal plates, if not beaded, shall be of a thickness of at least 1/10 inch, or if beaded be of a thickness of at least 1/20 inch.

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

8. *Band Saws.* – Every band saw shall be guarded as follows: -

(a) Both sides off the bottom pulley shall be completely encased by sheet or expanded metal or other suitable material.

(b) The front of the top pulley shall be covered with sheet or expanded metal or other suitable material.

- (c) All portions of the blade shall be enclosed or otherwise securely guarded except the portion of the blade between the bench table and the top guide.
9. *Planning machines.* – (1) A planning machine (other than a planning machine which is mechanically fed) shall not be used for overhand planning unless it is fitted with a cylindrical cutter block.
- (2) Every planing machine used for overhand planing shall be provided with a “bridge” guard capable of covering the full length and breadth of the cutting slot in the bench, and so constructed as to be easily adjusted both in a vertical and horizontal direction.
- (3) The feed roller of every planing machine used for thicknessing, except the combined machine for overhand planing and thicknessing, shall be provided with an efficient guard.
10. *Vertical spindle moulding machines.* – (1) The cutter of every vertical spindle moulding machine shall be guarded by the most efficient guard having regard to the nature of the work being performed.
- (2) The wood being moulded at a vertical spindle moulding machine shall, if practicable, be held in a jig or holder of such construction as to reduce as far as possible the risk of accident to the worker.
11. *Chain mortising Machines.* – The chain of every mortising machine shall be provided with a guard which shall enclose the cutters as far as practicable.
12. *Adjustment and maintenance of guards.* – The guards and other appliances required under this Schedule shall be –
- (a) maintained in an efficient state;
- (b) constantly kept in position while the machinery is in motion; and
- (c) so adjusted as to enable the work to be done without unnecessary risk.
13. *Exemptions.* – Paragraphs 6, 8, 9 and 10 shall not apply to any wood-working machine in respect of which it can be proved that other safeguards are provided, maintained and used which render the machine as safe as it would be if guarded in the manner prescribed in the Schedule.

### Sub schedule 33

#### Operation involving power presses & pressure plant

#### POWER PRESSES.

1. *Definition.* – For the purpose of this schedule power press means a machine used in metal or other industries for moulding, pressing, blanking, raising, drawing and similar processes.
2. *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 setting, etc.
3. *Protection of tool and die.* – (a) Each press shall be provided with a fixed guard with a slip plate on the underside enclosing the front and 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 articles falls to the rear of the press.
- (c) The design, construction and mutual position of the guards referred to in (a) and (b) 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 die guard, but a wider aperture may be permitted for second or subsequent operations if feeding is done through a chute.
- (e) Notwithstanding anything contained in sub-clauses (a) and (b) an automatic or inter-locked guard may be used in place of a fixed guard, but where such guards are used they shall be maintained in an efficient working condition and if any guard develops a defect, the power press shall not be operated unless the defect of the guard is removed.

**Pressure Plant.** – (1) Every plant or machinery used in a factory and operated at a pressure greater than atmospheric pressure shall be –

- (a) of good construction, sound material, adequate strength and free from any patent defect;
- (b) properly maintained in a safe condition;
- (c) fitted with –
- (i) a suitable safety valve or other effective device to ensure that a maximum permissible working pressure of the vessel shall not be exceeded;
- (ii) a suitable pressure gauge easily visible and designed to show at all times the correct internal pressure in lbs. per square inch, or in kilogram per square centimetre, and marked with a prominent red mark at the safe working pressure; and
- (iii) a suitable stop valve or valves by which the vessel may be isolated from other vessels or source of supply of pressure; and
- (iv) a suitable drain cock or valves at the lowest part of the vessel for the discharge of collected liquid.
- (d) thoroughly examined by a competent person: -
- (i) externally once in every period of six months;
- (ii) internally, once in every period of twelve months:

Provided that if by reason of design, construction and use of the vessel a thorough internal examination is not possible, this examination may be replaced by a hydraulic test which shall be carried out once in every two years in case of vessels not in continuous processes and once in every four years in case of vessels in continuous processes; and

- (iii) Hydraulically tested at intervals of not more than four years:

Provided that in respect of pressure vessels with thin walls such as, sizing cylinders made of copper or any other non-ferrous metal periodic hydraulic test may be dispensed with on condition that the requirements laid down in sub-rule (5) are fulfilled:

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

(2) The requirements of this rule shall be in addition to and not in derogation of the requirements of any other Act, rules or regulations in force.

(3) Nothing in this rule shall apply to –

- (a) any vessel which comes within the scope of the Indian Boiler Act, 1923 (V of 1923).
- (b) metal bottles or cylinders used for the storage or transport of compressed gases or liquefied or dissolved gases under pressure covered by the Gas Cylinder Rules, 1940 framed under the Indian Explosives Act, 1884 (IV of 1884)
- (c) feed pumps, steam traps, turbine casings, compressor, cylinders, cylinders of prime-movers, steam separators or dryers, steam strainers, steam de-super heater, oil separators, air receivers for fire sprinklers installations, air receivers of monotype machines, provided the maximum working pressure of the air receiver does not exceed 20 lbs. per square inch and capacity, does not exceed 3 cubic feet, air receivers of electric circuit breakers, air receivers of electrical relays, air vessels on pumps, pipe coils, accessories of instruments and appliances, such as cylinders and piston assemblies used for operating relays and interlocking type of guards, vessels with liquids subject to static head only and hydraulically operating cylinders other than any communicating with an air loaded accumulator, and
- (d) Water sealed gas-holder mentioned in rule 46.

**Note.** – For the purposes of this rule, the expression – (a) “thin walled vessels,” means vessel incapable of holding weight of water;

(b) “competent person” means a person holding any qualifications exempting him from passing Parts A and B of the Associate Membership Examination of the Institution of Engineers (India) or any other person whom the Chief Inspector considers competent for any specified purpose by virtue of his experience; and

(c) “vessel” means an enclosed vessel of any capacity and include any other plant or machinery working at a pressure higher than the atmospheric pressure.

(4) (a) In respect of pressure vessels of thin walls such as sizing cylinders made up of copper or any other non-ferrous metal the safe working pressure shall be reduced at the rate of five percent of the original working pressure for every year and no such cylinder shall be continued to be used for more than twenty years after it was first taken into use.

(b) If no information as to the date of construction, thickness of walls and safe working pressure is available, the age of the sizing cylinder shall be determined by the competent person in consultation with the Chief Inspector from any other particulars available with the manager.

(c) Every new and second hand cylinders of thin walls to which repairs which may affect its safety, have been carried out, shall be tested before use to, at least one and a half times its working pressure.

(5) Every vessel operated at a pressure greater than atmospheric pressure, and not so constructed as to withstand with safety the maximum permissible working pressure at the source of supply, or the maximum pressure which can be obtained in the pipe connecting the vessel with any other source of supply shall be fitted with a suitable reducing valve or other suitable automatic device to prevent the safe working pressure of the vessel being exceeded.

(6) In a plant in which owing to the nature of the process or the action of the contents of the vessel, a pressure gauge or safety valve or both cannot work reliably, a tested and reliable working thermometer with a sufficiently large scale, on which shall be clearly marked the maximum permissible temperature in the vessel, or barometers or rupture discs in addition to the pressure gauge and safety valve shall be fitted.

(7) If during thorough examination any doubt arises as to the capacity of a vessel to work safely until the next examination, provided for in these rules, the competent person shall enter in the prescribed register his observation and remark with reasons and may authorise the vessel to work further, subject to a lowering of pressure or to more frequent inspection or subject to both these conditions.

(8) No vessel which has undergone alterations or repairs shall be put to use unless it is thoroughly examined by competent person.

(9) A report of the result of every examination, made shall be completed in **Form XXIII** and signed by the person marking the examination, and shall be kept available for perusal by an Inspector at any time while the vessel is in service.

(10) No vessel which has previously been used shall be taken into use in any factory for the first time in a factory until it has been examined and reported in accordance with these rules and no new vessel shall be taken into use unless there has been obtained from the maker of the vessel, or from a competent person, a certificate specifying the maximum permissible working pressure thereof, and stating the nature of the tests to which the vessel and its fitting (if any) have been subjected and certificate is kept available for perusal by an Inspector and vessel is so marked as to enable it to be identified with the certificate relating to the same.

(11) Where the report of any examinations under these rules specified conditions for securing the safe working of a vessel, the vessel shall not be used except in accordance with those conditions.

(12) The competent person making the report of any examination under this rule shall within seven days of the completion of examination send to the Inspector a copy of report in every case where the maximum permissible working pressure is reduced, or where the examination shows that the plan cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time.

(13) Where there are more than one pressure plants or vessels in a factory each such plant or vessel should be given a distinctive number.

(14) The Chief Inspector may, by an order in writing, exempt, subject to such conditions as he may specify, from any of the provisions of this rule any pressure vessel or pressure plant if he is satisfied that such provision need not be applied in consideration of the special nature of its construction or use of any other matter. Such orders may at any time be revoked by the Chief Inspector without assigning any reason.

#### **Gas Holder :**

(1) (a) The expression "gas-holder" for the purpose of the rule, means "water sealed gas- holder.

(b) This rule shall apply to only such gas-holders as have a storage capacity of not less than 141-6 cubic metres (5,000 c.ft).

(2) Every gas-holder shall be thoroughly of good and sound construction and sound material, and of adequate strength, shall be free from defects patent or otherwise and shall be properly maintained.

(3) Where there are more than one gas-holder in a factory every gas-holder shall be given a distinguishing number and the numbers shall be marked on the respective gas-holders in bold letter and in a conspicuous position.

(4) Every gas-holder shall be thoroughly examined externally by a competent person at least once in every period of twelve months.

(5) No gas-holder, any lift of which has been in use for ten years, shall be used unless the internal condition to the sheeting is thoroughly examined by a competent person, by means of an electronic device or by a similar accurate device approved by the Chief Inspector and in case of any, gas-holder any lift of which has already been in use for ten years or more on the date on which this rule comes into force, such examination shall be carried out within the period of one year from the said date but, in exceptional cases such a period may be extended up to two years by the Chief Inspector. This examination shall be Extended up to two years by the Chief Inspector. This examination shall be repeated once in every four years after the above mentioned first examination:

Provided that if the Chief Inspector is satisfied that the device mentioned in this sub-rule are not available, he may permit the examination to be carried out by cutting out samples from the crown and the sides of the gas-holder or other method approved by him:

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

(6) (a) After every examination conducted in accordance with sub-rule (1) and (5), the manager or the occupier shall obtain report from the person carrying out the examination in **Form No. XXIV** and shall take immediately steps to rectify the defects if any, pointed out in the report and carry out such repairs or take such steps as may be recommended or suggested in the report.

Entries in respect of such steps shall be made in the form of the report as well as in the register in **Form no. XXIII**.

(b) All reports in **Form No. XXIV** shall be kept and mentioned in a bound register or in such other manner as may be convenient and shall be produced before an Inspector whenever acquired to do so.

(7) All possible steps shall be taken and device applied to prevent ingress of any impurity in gas-holders.

(8) No gas-holder shall be repaired or demolished except under the direct supervision of a person who by his training and experience and by his knowledge of the necessary precautions against risk of explosions and gassing, is competent to supervise such work.

(9) All samples cut under sub-rule (5) shall be kept readily available for inspection by the Inspector.

(10) A permanent bound register in **Form No. XXIII** duly signed by the occupier or manager shall be maintained and shall be produced before the Inspector whenever required to do so.

**Explanation.** – A competent person for the purposes of this rule means a person having a Degree in Diploma in Mechanical or Chemical Engineering with at least three year's practical experience of operation, maintenance or repairs of such gas-plants, or any other person with at least ten years experience thereof if he does not possess any such degree.

#### Sub schedule 34

#### **RUBBER MILLS INCLUDING TYRE RETREADING.**

1. *Installation of machines.* – Mills for breaking down, cracking, granting, mixing, refining and warming rubber compounds shall be so installed that the top of the front roll is not less than 46 inches above the floor or working level. Provided that in existing installations where the top of the front roll is below this height a strong rigid distance bar guards shall be fitted across the front of the machine in such a position that the operator cannot reach the nip of the rolls.

2. *Safety devices.* – (1) Rubber mills shall be equipped with –

(a) hoppers so constructed or guarded that it is impossible for the operators to come into contact in any manner with the nip of the rolls; and

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

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

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

### **Sub schedule 35**

### **JUTE TEXTILES.**

1. *Fencing of machinery.* – The occupier shall provide and maintain in good order fencing guards or safety device in respect of each individual machine as prescribed.

2. *Softening machines.* – (a) A safety stopping device comprising a breast plate in front of the feed table to operate the belt striking gear by releasing an unbalanced weight.

No device departing from the unbalanced weight principle will be deemed to conform to this rule unless it has been approved in writing by the Inspector. In the case of machines provided with an individual electric drive the device shall be arranged to act on a switch inserted in the no-volt release circuit.

(b) The feed table shall not be less than 6' in length, measured from the centre of the first cloth roller to the centre of the first pair of cast iron rollers. The table shall be provided with side guards reaching a height of not less than 4'6" from the floor, and extending at the height, not less than 3'6" from the centre of the first pair of rollers; the height of the rest of the side guards shall not be less than 4' from the floor.

(c) The starting and stopping gear shall be arranged to comply with the following –

(i) Provision for stopping the machine at both the feed and delivery ends.

(ii) Provision for starting the machine at the feed end only, design shall be such that an operator at the feed end cannot start the machine without the co-operation of an operator at the delivery end.

(iii) When a machine is stopped for clearing a jam or attention otherwise the starting gear shall be secured in "off" position at least by a lock operated by a removable key in possession of the person attending the machine.

(iv) The lever operating the unbalanced weight, shall be securely fenced.

(d) Sheet steel casings completely enclosing the side shafts, i.e. the shafts and gears shall not be exposed on the underside. The casings shall be locked or secured by a device which will ensure (i) that they cannot be opened while the machine is in motion and (ii) that it will not be possible to start the machine unless they are closed.

3. *Carding machines.* – (a) The underframe shall be guarded in such a manner that it will not be possible to operatives to obtain access underneath the machine until the cylinder has ceased to revolve. The lowest cross member of the frame shall come down to a point not more than 10" from the floor and all openings above this, large enough to permit of access underneath, shall be filled in with sheet steel or fitted with bars or rods spaced not more than 6" apart. Any part of this protection may be in the form of a door but all such doors shall be controlled by a device which will ensure that they cannot be opened until the cylinder has come to rest and that the machine cannot be restarted until the doors are closed:

Provided that in the case of machines installed before the commencement of this rule rigidity secured panels filling the underframe will be deemed to comply with it.

(b) A guard with panels and sliding doors of sheet steel or closely spaced bars or rods enclosing the side gears; there shall be no opening at the underside of this protection for access to the gears. The sliding doors shall be controlled by a device which will ensure that they cannot be opened until the cylinder has come to rest, and that the machine cannot be started up until the doors are closed.

(c) A sheet steel guard extending up to the centre line of the cylinder, enclosing the stripper belts and pulleys shall be provided on all machines installed after the commencement of this rule.

(d) An adequately strong and rigid set of bars or rods over the doffer roller securely bolted in position. This guard must follow the radius of the roller; the space between the rods not exceed 2"; the distance from the doffer pinpoints to the underside of the rods to be 4"; the space between the Drawing pressing roller and the first rod not to exceed 2"; and width of the guard from the first to last rod to be not less than 12".

(e) A hand or guard rail extending the full width of the Drawing pressing roller, fitted in a convenient position in front of and higher than the roller.

(f) Effective side guards to prevent operative's fingers being caught between the delivery roller and the pressing ball

(g) When a machine is stopped for clearing a jam or attention otherwise, the starting gear shall be secured in the "off" position at least by a lock operated by a removable key in possession of the person attending the machine.

4. *Drawing machine.* – (a) A sheet steel guard completely closing the space between the bend rail and the bottom of the retaining roller the opening and closing of which shall be controlled by the starting gear, and the design such that the guard cannot be opened while the machine is running. The guard plate shall swivel more or less about the centre of its height and the top edge shall swing inwards towards the gillbars as the guards opens, and outwards as the guard closes:

Provided that in the case of machines installed before the commencement of this rule, a fixed guard will be sufficient in the clearance between the top of the guard and the underside of the retaining roller does not exceed 3/8:

Provided further, that in the case of machines with individual electric drive it will be sufficient if the guard is of the swivelling type and inter-linked with the driving mechanism so that silver cannot be fed into the gills, or the guard opened, before the machine is stopped, and that the machine cannot be started up unless the guard is closed.

(b) Sheet steel or cast iron guards completely enclosing the end gears, the design to be such that access to the gears is possible only by removing the guard in its entirety. If doors or movable panels are provided they shall be controlled by a locking device, operated by the starting gear, which will ensure that the machine cannot be started unless the guard is completely closed and that no movable part can be opened whilst the machine is in motion:

Provided that in the case of machines installed before the commencement of this rule a guard securely held in position by automatic catches to prevent opening by vibration but without the inter-locking arrangement will be deemed to comply with it.

(c) An efficient guard which will prevent operative's fingers or hands being caught between the delivery roller and the pressing ball.

(d) Starting and stopping gear so designed that the machine can be stopped by operatives on the feed and delivery sides; can be started by only an operative on the feed side but with the co-operation of the operative on the delivery side and cannot be started by an operative on the delivery side. The device necessitating co-operation shall be engaged before the machine stops.

(e) Shear pins driving the individual carriages shall be fitted to the pinion on the main back shaft and not to the pinion on the carriage back shaft.

5. *Roving machines.* – (a) Started and stopping gear designed to embody the following: -

- (i) Provision for stopping the machine on both the feed and delivery sides.
- (ii) Provision for starting the machine on the delivery side only.
- (iii) A device on the delivery side which will automatically lock the belt striking gear in the "off" position. This device shall be such that the machine will not stop before the lock is engaged nor start before it is disengaged by a worker on the delivery side.

(b) Sheet steel or cast iron guards, completely enclosing the end gears, the design to be such that access to the gears is possible only by removing the guard in its entirety. If doors or movable panels are provided they shall be controlled by a locking device operated by the starting gear, which will ensure that the machine cannot be started unless the guard is completely closed and that no movable part can be opened whilst the machine is in motion:

Provided that in the case of machines installed before the commencement of this rule a guard securely held in position by automatic catches to prevent opening by vibration, but without the inter-locking arrangement, will be deemed to comply with it.

(c) Shear pins driving individual carriages shall be fitted to the pinion on the main back shaft and not to the pinion on the carriage back shaft.

6. *Spinning frames.* – (a) Access between the driving cylinders whilst in motion shall be prevented by providing a door at the pass end so inter-connected with the starting gear that neither side of the frame can be set in motion whilst the door is open and conversely, the door cannot be opened whilst either or both sides of the frame is/or are running:

Provided that in the case of machines installed before the commencement of this rule hinged and well secured doors will be deemed to comply with it.

(b) Sheet steel or cast iron guards completely enclosing the end gears, the design to be such that access to the gears is possible only by removing the guard in its entirety. If doors or movable panels are provided they shall be controlled by a locking device operated by the starting gear which will ensure that the machine cannot be started unless the guard is completely closed and that no movable part can be opened whilst the machine is in motion:

Provided that in the case of machines installed before the commencement of this rule a guard securely held in position by automatic catches to prevent opening by vibration, but without the interlocking arrangement, will be deemed to comply with it.

7. *Cop Winding machines.* – (a) Effective guard covering the driving end gears. Hinged doors or panels will not be deemed to comply with this rule unless securely held in the closed position by automatic catches to prevent opening by vibration.

(b) Guards covering the spindle driving gears of such design that it will not be possible to remove them from position whilst the machine is in motion:

Provided that in the case of machines installed before the commencement of this rule, guards rigidly secured by bolts or screws, will be deemed to comply with it.

8. *Roll Winding machines.* – Effective guard for traverse or other gears and cams; Hinged doors and panels will not be deemed to comply with this rule unless securely held in the closed position by automatic catches to prevent opening by vibration.

9. *Beaming and dressing machines.* – (a) The flywheel shall be of the disc type.

(b) Cross and side shafts driving the starch rollers shall be enclosed in protecting tubes.

(c) A guard securely anchored in position and protecting the nip between the top and bottom starch rollers. It shall have an aperture large enough to pass the yarn through but not the operative's hand. A hinged guard will not be deemed to be compliance with this rule.

(d) A guard protecting the nip between the yarn beam pressing roller and the outer top weight roller, i.e., the top weight roller on the side at which the beam is inserted and removed.

(e) The space between any yarn guide roller and its adjacent steam cylinder must be not less than 3.

10. *Looms.* – (a) Sheet steel or cast iron guards protecting the crank and wiper shaft spur gears shall be provided.

(b) The minimum clearance between the sley and the breast beam shall not be less than 2'.

(c) Not later than six months after the commencement of this rule yarn beams shall be placed on the looms by mechanical or other means. Lifting into position by hand alone will not be deemed to comply with this rule.

11. *Cropping machines.* – (a) Sheet steel guards protecting the spirals shall be provided.

12. *Calendaring machines.* – (a) A strong and rigid guard, securely fixed in position, in front of the nip between the bottom cast iron roller and the paper roller on top of same. This guard shall be constructed

in such a manner that it will be impossible for fingers of an operative to reach the nip through the aperture in the guard.

(b) *Safety rollers protecting the nip of the upper-rollers.* – These rollers must be made of steel or wrought iron tube, as light as possible, and not more than 2 ½” external diameter. The safety roller shall ride on the under-roller, and be free to lift. It shall be set in such a manner that the peripheral clearance between it and the upper-roller, and between it and the under-roller when the safety roller is fully raised, will not permit of an operative’s fingers reaching the nip.

(c) Sheet steel panels shall be fitted on the machine gable to prevent access through same to the large spur wheel.

(d) Lever weights shall be lowered into strong and rigid guards.

13. *Cloth cutting machines.* – A guard preventing access to the knife from the front, top or side shall be provided. On the underside the knife shall be protected up to the maximum limit without interfering with the machine operation.

14. *Lapping machine.* – (a) *Provision for starting the machine at the feed end only.* – The design shall be such that an operator at the feed end cannot start the machine without the co-operation of an operator at the delivery end and that he cannot interfere with the device necessitating co-operation.

(b) A “sight panel” fitted to the feed table in such position that operator on either side of the machine can see through to the other side.

(c) The hand wheel on the driving shaft shall be of the disc type and it shall be located at sufficient distance from the machine gable to permit of fencing being constructed between it and the lever mechanism operating the folder.

(d) The treadle mechanism shall be such as to allow extraction of the maximum cloth lapped and no worker shall be required to go up on the machine table to force it down.

15. *Sewing machines.* – An apron plate shall be fitted in front of the feed chain and the plate shall be without holes or openings except for slots for the jockey pulleys.

16. *Press pits.* – When the press table is levelled with the floor the clearance between it and the floor shall not be less than 4”.

### Sub schedule 36

#### Process which involve risk of injury to the eyes

**Protection of eyes.** – Effective screens or suitable goggles shall be provided for the protection of persons employed in or in the vicinity of the processes specified in the schedule annexed hereto being processes which involve risk of injury to the eyes from particles or fragments thrown in the course of the process and also by reason of exposure to light.

#### Schedule

1. Breaking, cutting, pressing or curving of bricks, stone, concrete, slag or similar material by means of hammer chisel pick, or any other hand tools, or by means of a portable tool driven by power, and dry grinding of surfaces of any such material by means of a wheel or disc driven by power.

2. Dry grinding of surface of metal or any articles of metal by applying the same by band to a wheel disc or band driven by power, or by means of a portable tool driven by power.
3. Dividing into separate parts of metal, or any article of metal brick, stone concrete or similar materials by means of a saw driven by power or by means of an abrasive cutting wheel or disc driven by power.
4. Turning of metal or any article metal.
5. Drilling by means of portable tool.
6. Welding and cutting of metal or any article of metal by means of an electric, oxy-acetylene or similar process.
7. Hot fettling of steel casting by means of a flux injected burner or air torch and de-seaming of metal.
8. Fettling of metal casting; involving removal of metal, including runners, gates and risers and removal of any other material during the course of such fettling.
9. Chipping of metal or any article of metal, and chipping, knocking out cutting out or cutting of cold river, bolt, nut lug, pin, collar or similar articles from any structure of plant or form part of any structure of plant by means of a hammer, chisel, punch, or similar hand tools, or by means of a portable tool driven by power.
10. Chipping or scurfing of paint, scale, slag, rust or other corrosion from the surface of metal or other hard material by means of a hand tool or by a portable tool driven by power.
11. Breaking of scrap metal by means of a hammer or by means of a tool driven by power.
12. Routing of metal.
13. Work on drop hammer and power hammer and work by any person not working on such hammer but whose working is carried on in such circumstance and in such a position that particles or fragments are liable to be thrown off towards him.
14. Work at furnace where there is risk to eyes from molten metal.
15. Pouring or skimming of molten metal.
16. Working involving risk to the eyes from heat being thrown off.
17. Truing or dressing of abrasive wheel.
18. Handling in open vessel or manipulation of strong acid or dangerous corrosive liquid or material, and operation, maintenance or dismantling of plant or any part of plant, being plant or part of plant which contains or has contained such acid, liquid or material unless the plant or part of plant has been so prepared by isolation, reduction of pressure, or otherwise, treated, or designed and constructed as to prevent risk of injury.
19. Any other process wherein there is any risk of injury to eyes from particles or fragment thrown off during the course of the process.

**20** In every factory a register shall be maintained in **Form no. XXV** in which the name of every worker (along with such other particulars as are required to be furnished in the said register) shall be recorded, who may be employed or may be required to perform the work and no worker shall be allowed to carry out any such duty unless his name with full particulars has been recorded in the said register. This register shall be produced forthwith before an Inspector whenever demanded by him.

**21** (1) No young person shall be allowed to work in any operations specified in Rule 46 or any other plant, machine or process in which there may be any hazard of fire, explosion, or of injury to health unless (a) he has been fully instructed as to the dangers arising therefrom and the precautions to be observed, and (b) has received sufficient training in work at the machine, plant or process, or is under the direct and adequate supervision of a person who has a thorough knowledge and experience thereof.

(2) Before any young person is allowed to work on any machine, plant or process specified in sub-rule (2) the Manager or any other responsible person duly authorised by the Manager, shall give a certificate in **Form no. XXVI** and every such certificate shall be kept and maintained in the form of a bound book and the said register shall be produced before an Inspector forthwith whenever demanded by him.

(3) This rule is without any prejudice to and in addition to and not in derogation to any provision of any other rule or of the Act.

**22 Examination of eye sight of certain workers.** – (1) No person shall be employed to operate a crane, locomotive fork-lift truck, pay loaders Dumpers or other automobiles or to give signals to a Crane or Locomotive operator unless his eye-sight and colour vision have been examined by a qualified ophthalmologist, approved by the Inspector and declare fit to work whether with or without the use of corrective glasses.

(2) The eye-sight and colour vision of the person employed as referred to in sub-rule (1) shall be examined at least once in every period of 12 months up to the age of 45 years and once in every six months beyond that age.

(3) Any fee payable for an examination or any cost involved for corrective glasses under sub-rules (1) and (2) shall be paid by the occupier and shall not be recoverable from that person.

(4) The record of examination and re-examination carried out as required in sub-rule (1) and (2) above shall be maintained in **Form no. XXVII** appended to this and a copy thereof be sent to the Inspector within fifteen days from the date of examination.]

**69. Site Appraisal Committee under sub-section (1) of section 83. (i) Constitution:-**

(1) The following provision shall govern the functioning of the Site Appraisal Committee, hereinafter the referred to as the “Committee” in these rules:

(a) The State Government may constitute a Site Appraisal Committee and reconstitute the committee as and when necessary by notification as follows:

(b) The State Government may appoint a senior official of the Factories Inspectorate, preferably with qualification in Chemical Engineering to be the Secretary of the Committee.

(1) Chief Inspector-Cum-facilitator – Chairman,

(2) A representative of the Fire Service Organisation of the State Government:

(3) A representative of the State Department of Industries;

(4) A representative of the Director General of Factory Advice Service and Labour Institutes, Bombay or Regional Labour Institute, Calcutta;

(5) A representative of Department of Forest, Environment and Climate Change

(6) A representative of Jharkhand State Pollution Control Board.

(7) Inspector-Cum-Facilitator of Concerned area- Member

- (b) The committee may co-opt a representative of District Administration during the site visit.
- (2) No member unless, required to do so by a Court of Law, shall disclose otherwise than in connection with the purposes of the Act, at any time any information relating to manufacturing of commercial business or any working process which may come to his knowledge during his tenure as the member of a Committee.
- (3) Applications for appraisal sites: -
- (a) Applications as prescribed in Rule 72(i) for appraisal of sites in respect of the factories covered under section 2 (za) of the code shall be submitted to the Chairman of the State Appraisal Committee.
- (b) The application for site appraisal along with 15 copies thereof shall be submitted to the Chief Inspector-Cum-Facilitator. The Committee may dispense with furnishing information on any particular item in the Application Form if it considers the same to be not relevant to the application under consideration. A summary examination of the documents needed for site appraisal shall be done by the office of Chief Inspector-Cum-Facilitator within 7 days and the applicant shall be informed online regarding deficiency, if any. In case the documents provided are complete, the acknowledgement shall mention the same.
- (c) The applicant may submit an application under section 79(1) concerning approval of plans for factory together with the application under section 83(1) and the same shall be considered as the application for approval of site plan. If application is complete and correct in all respect in such case approval of site plan shall be given together with approval of Site Appraisal Committee.
- (4) Functions of the Committee: -
- (a) The Secretary shall arrange to register the applications received for appraisal of site in a separate register and acknowledge the same within a period of 7 days.
- (b) The Secretary shall fix up meeting in such a manner that all the applications received and registered are referred to the Committee within a period of one month from the date of their receipt.
- (c) The committee may adopt a procedure for its working keeping in view the need for expeditious disposal of applications.
- (d) The committee shall examine the application for appraisal of a site with reference to the prohibitions and restrictions of the location of industry and the carrying on of processes and operations in different areas as per the provisions of Rule 5 of the Environment (Protection) Rules, 1986 framed under the Environment Protection Act, 1986.
- (e) The committee may call for documents, examining experts, inspect the site if necessary and take other steps for formulating its view in regard to the suitability of the site.
- (f) Wherever the proposed site requires a clearance by the Ministry of Industry or the Ministry of Environment and Forests, the application for Site Appraisal will be considered by the Site Appraisal Committee only after such clearance has been received.

**69. (i) Format of Application To The Site Appraisal Committee under sub-section (2) of section 83-**

**1. Name and address of the applicant:**

**2. Site ownership data:**

2.1. Revenue details of site such as Survey no. Plot no. etc.

2.2. Whether the site is classified as forest and if, so, whether approval of the Central Government under section 5 of the Indian Forests Act, 1927 has been taken.

2.3. Whether the proposed site attracts the provisions of section 3 (2) (v) of the E.P. Act, 1986, if so, the nature of the restrictions.

2.4. Local authority under whose jurisdiction the site is located.

**3. Site plan:**

3.1. Site plan with clear identification of boundaries and total area proposed to be occupied and showing the following details near by the proposed site.

(a) Historical monument, if any, in the vicinity.

(b) Names of neighbouring manufacturing units and human habitants, educational and training institutions, petrol installations, storages of LPG and other hazardous substance in the vicinity and their distances from the proposed unit.

(c) Water sources (rivers, streams, canals, dams, water filtration plants' etc.) in the vicinity.

(d) Nearest hospitals, fire-stations, civil defence stations and police stations and their distances.

(e) High tension electrical transmission lines, pipe lines for water, oil, gas or sewerage railway line, roads, stations, jatties and other similar installations.

3.2. Details of soil conditions and depth of which hard starts obtained.

3.3. Contour map of the area showing nearby hillocks and difference in levels.

3.4. Plot plan of the factory showing the entry and exit points, roads within, water drains etc.

**4. Project Report:**

4.1. A summary of the salient features of the Project.

4.2. Status of the organisation (Government, semi-Government) Public or Private etc.

4.3. Maximum number of person likely to be working in the factory.

4.4. Maximum amount of power and water requirements and source of their supply.

4.5. Block diagrams of the buildings and installations in the proposed supply.

4.6. Details of housing colony, Hospital, School, and other infrastructural facilities proposed.

**5. Organisation structure of the proposed manufacturing Unit Factory.**

### 5.1. organisation diagrams of

- Proposed enterprise in general

- Health Safety and Environment protection departments and their linkage to operation and technical departments.

### 5.2. Proposed Health and Safety Policy.

5.3. Area allocated for treatment of wastes and effluent.

5.4. Percentage outlay on safety, health and environment protection measures.

## 6. Metrological data relating to the site:

6.1. Average, minimum and maximum of

- Temperature

- Humidity

-Wind velocities

during the previous ten years.

6.2. Seasonal variations of wind direction.

6.3. Highest water level reached during the floods in the area recorded so far.

6.4. Lightening and seismic data of the area.

## 7. Communication Links:

7.1. Availability of telephone/telex/wireless and other Communication facilities for outside communication.

7.2. Internal Communication facilities proposed.

## 8. Manufacturing process information:

8.1. Process flow diagram.

8.2. Brief write up on process and technology.

8.3. Critical process perimeters such as pressure build up temperature rise and runaway reactions.

8.4. Other external effects critical to the process having safety implications, such as ingress of moisture or water, contact with incompatible substances, sudden power failure.

8.5. Highlights of the build in safety/pollution control devices or measure/incorporated in the manufacturing technology.

## 9. Information of Hazardous materials:

9.1. Raw materials, intermediate, products and by-products and their quantities (Enclose Materials Safety Data Sheet in respect of each hazardous substance).

9.2. Main and intermediate storages proposed for raw materials, intermediate/products/by-products (maximum quantities to be stores at any time).

9.3. Transportation methods to be used for materials inflow and outflow their quantities and likely recutes to be followed.

9.4. Safety measures proposed for:

- Handling of materials

- Internal and external transportations, and

- Disposal (packing and forwarding of finished products)

#### **10. Information on Dispersal/Disposal of waters and pollutants.**

10.1. Major pollutants (gas, liquid, solid, their characteristics and quantities (average and at peak loads).

10.2. Quality and quantity of solid wastes generated, method of their treatment and disposal.

10.3. Air, water and Soil pollution problems anticipated and the proposed measures to control the same, including treatment and disposal of effluents.

#### **11. Process Hazards information.**

11.1. Enclose a copy of the report on environmental impact assessment.

11.2. Enclose a copy of the report on Risk Assessment study.

11.3. Published (open or classified) reports, if any, on accident situations/occupational health hazards or similar plants elsewhere within or outside the country).

#### **12. Information of proposed Safety and Occupational Health Measures.**

12.1. Details of fire fighting facilities and minimum quantity of water, CO and/or other fire fighting measures needed to meet the emergencies.

12.2. Details of in-house medical facilities proposed.

#### **13. Information on Emergency preparedness.**

13.1. Proposed arrangements, if any, for mutual aid scheme with the group of neighbouring factories.

13.2. On-site emergency control management plan

#### **14. Any other relevant information.**

I certify that the information furnished above is correct to the best of my knowledge and nothing of importance has been concealed while furnishing it.

Name and signature of the Applicant: \_\_\_\_\_

48 (ii) The first visit of the site appraisal committee shall be done preferably within 15 days of the acknowledgement given for submission of complete document and the whole process of site inspection, site appraisal shall be completed not later than 30 days from the date of acknowledgement to the applicant. In extraordinary case where the site appraisal is not completed within 30 days the secretary of the committee shall give a report explaining the reason thereof and shall expedite clearance. On every first business day of the working week a report shall be sent to the government regarding the pendency of application and action taken.

**70. Manner of disclosing information by occupier of a factory under sub-section (1) of section 84;**

**(A) 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 materials or substances in the manufacture, transportation, storage and other processes:

- (a) Requirements of Sections 84(1) of the Code;
- (b) A list of 'hazardous processes' carried on in the factory
- (c) Location and availability of all Material Safety Data Sheets as per Schedule IV;
- (d) Physical and health hazards arising from the exposure to or handling of substances;
- (e) Measures taken by the occupier to ensure safety and control of physical and health hazards;
- (f) Measures taken by the workers to ensure safe handling, storage and transportation of hazardous substances;
- (g) Personal Protective Equipment required to be used by workers employed in 'hazardous process' or 'dangerous operations';
- (h) Meaning of various labels and markings used on the containers of hazardous substances as provided under Schedule IV;
- (i) Signs and symptoms likely to be manifested on exposure to hazardous substances and to whom to report;
- (j) Measures to be taken by the workers in case of any spillage or leakage of a hazardous substance
- (k) Role of workers vis-à-vis the emergency plan of the factory, in particular the evacuation procedures;
- (l) Any other information considered necessary by the occupier to ensure safety and health of workers.

(2) The information required by sub-rule (1) shall be compiled and made known to workers individually through supply of booklets or leaflets and display of cautionary notices at the work places.

(3) The booklets, leaflets and the cautionary notices displayed in the factory shall be in the language understood by the majority of the workers and also explained to them.

(4) The Chief Inspector may direct the occupier to supply further information to the workers as deemed necessary. Rule

**(B) DISCLOSURE OF INFORMATION TO GENERAL PUBLIC**

(1) The occupier of every factory carrying on a 'hazardous process' shall in consultation with the District Disaster Management Authority designated by the State Government, take appropriate steps to inform the general public who are likely to be in the area which might be affected by an accident. Such information shall include:

- (a) Name of the factory and address where situated;
  - (b) Identification, by name and position, of the person giving the information;
  - (c) Confirmation that the factory has approval from the Factories Inspectorate and Pollution Control Board;
  - (d) An explanation in simple terms of the hazardous process(es) carried on in the premise;
  - (e) The common names of the hazardous substances used which could give rise to an accident likely to affect them, with an indication of their principal harmful characteristics;
  - (f) Brief description of the measures to be taken to minimise the risk of such an accident in compliance with its legal obligations under relevant safety statutes;
  - (g) Salient features of the approved disaster control measures adopted in the factory;
  - (h) Details of the factory's emergency warning system for the General Public;
  - (i) General advice on the action members of the public should take on hearing the warning;
  - (j) Brief description of arrangements in the factory, including liaison with the emergency services, to deal with foreseeable accidents of such nature and to minimise their effects; and (k) Details of where further information can be obtained.
- (2) The occupier shall also supply any further information – (a) to general public as directed by the District Disaster Management Authority from time to time; (b) to the elected representatives of the general public on request.
- (3) The occupier shall endeavour to enter an agreement with the District Disaster Management Authority for the area, within whose jurisdiction the factory is situated, for the District Disaster Management Authority to take appropriate steps to inform the general public outside the factory who are likely to be affected by an accident as required in sub-rule (1).
- (4) The information prescribed in sub-rule (1) shall be in Hindi and English and shall also be displayed in big hoarding at conspicuous places around the outside boundary of the factory as well as in the habitation likely to be affected by it.

**(C) DISCLOSURE OF INFORMATION TO THE LOCAL AUTHORITY** The occupier of every factory carrying on a 'hazardous process' shall furnish the following information in writing to the local authority having jurisdiction over the area in which the factory is situated – (a) the information furnished to general public as prescribed in the Rule 49B;

(b) a statement of the names and quantities generally stored or in process of hazardous substances included in the list of chemicals prescribed under clauses (vi) and (vii) of sub-section (2) of Section 3 of the Environment (Protection) Act, 1986. Rule

(c) Disaster Control & Management Plan:

- (1) The occupier of every factory carrying on a hazardous process shall prepare a draft disaster control and management plan in respect of his factory and submit the same to the Chief inspector and the District Emergency Authority.
- (2) The District Emergency Authority on receipt of the plan shall hold consultation with the occupier, representatives of the Chief Inspector, the State Pollution Control Board, local authority as well as police, health fire brigade and other authorities concerned and finalise the plan.
- (3) The District Emergency Authority shall forward a copy of the final plan to the occupier and all authorities concerned. The occupier shall intimate the workers the contents of the plan.
- (4) The occupier in consultation with the District Emergency Authority will arrange rehearsals of the plan at least once a year.
- (5) The Chief Inspector may issue guidelines for formulation of disaster control and management

plans. The Chief Inspector as well as the District Emergency Authority may after mutual consultation also direct modifications of the disaster control and management plan in respect of a factory as may be necessary from time to time.

**(D) 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 Chief Inspector a copy of all the information furnished to the workers, local authority and general public. (2) A copy of compilation of Material Safety Data Sheets as per **Schedule IV** in respect of hazardous substances used, produced or stored in the factory shall be furnished to the Chief Inspector, and the local Inspector. (3) The occupier shall also furnish any other information asked for by the Chief Inspector-cum-Facilitator from time to time. (4) Emergency Plan: (a) The occupier of a factory carrying on a hazardous process shall prepare a draft on-site emergency plan and submit it to the Chief Inspector. The Chief Inspector may make such modification in the plan as necessary, in consultation with the occupier and approve the same. (b) The occupier will submit a copy of the approved plan to the District Emergency Authority. (c) The occupier will intimate the workers the provisions of the emergency plan and hold rehearsals of the plan periodically. He shall review the plan from time to time and make necessary changes therein under intimation to the Chief Inspector and the District Emergency Authority. (d) The Chief Inspector may issue guidelines relating to formulation of emergency plans. He may also direct modifications of the emergency plan in respect of any factory as may be necessary, from time to time.

**71. Interval of informing Chief Inspector-cum-Facilitator and the local authority about the policy with respect to the health and safety of the workers under sub-section (2) of section 84-**

- (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 – (a) covered under Section 2(w)(i) but employing less than 50 workers; (b) covered under Section 2(w)(ii) but employing less than 100 workers; are exempted from requirements of sub-rule(1): Provided that they are not covered under the First Schedule under Section 2(za) or carrying out processes of 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 required the occupiers of any of the factories or 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 set-up to carry out the declared policy clearly assigning the responsibility at different levels; and (c) arrangements for making the policy effective.
- (5) In particular, 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 a resume of health and safety performance of the factory in its Annual Report; (e) relevant techniques and methods, such as safety audits and risk assessment for periodical assessment of the status on health, safety and environment and taking all the remedial measures; (f) 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 retraining 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 annually available to the Inspector-cum-Facilitator having jurisdiction over the factory and to the Chief Inspector-cum-Facilitator and local authority;

(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 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 substances.

**72. Compulsory disclosure of information for a Factory starting hazardous process to Chief Inspector-cum-Facilitator under sub-section (5) of section 84;** The Information desired under this Rule shall be furnished electronically.

(ii) The provisions specified in the **Schedule- V** to control the major accident hazard shall apply to description of factories wherein hazardous processes or operations specified are carried on. These provisions shall supplement the other Rules regarding hazardous processes.

**73. Manner of publicising among the workers and the general public living in the vicinity of the factory the measures and disposal laid down under sub-section (7) of section 84-** (i) For the purpose of Sub-section (7) of Section 84, the occupier of a factory shall publicize measure for the handling, usage, transportation and storage of hazardous substances inside the factory premises and the disposal of such substances outside the factory premises to workers and the general public living in vicinity by print and electronic media, hoarding or any other mode of communication which is suitable for this purpose and a record thereof.

(ii) Information on industrial wastes : (1) The information furnished under Rules 73 & Rule 75 shall include the quantity of the solid and liquid wastes generated per day, their characteristics and the method of treatment such as incineration of solid wastes, chemical and biological treatment of liquid wastes, and arrangements for their final disposal. (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, electro-static precipitators or similar such arrangements made for controlling pollution of the environment. (3) The occupier shall also furnish the information prescribed in the sub-rules (1) and (2) to the State Pollution Control Board.

**74. Conditions for accessibility to the record by the workers under clause (a) of section 85;**

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

(a) One in every six months or immediately after the medical examination whichever is earlier.

(b) If the Factory Medical Officer/Civil Surgeon is of the opinion that the worker has manifested signs and symptoms of any notifiable disease as specified in the Third Schedule of the Act;

(c) If the worker leaves the employment;

(d) If any of the following authorities so direct;

-the Chief Inspector-Cum-Facilitator;

-the Health Authority of the Central or State Government;

-Competent authority of Employees Compensation under the Social Security Code, 2020;

-The Director General, Employees State Insurance Corporation;

-The Director Employees State Insurance Corporation (Medical Benefits); and

-The Director General, Factory Advice Service and Labour Institutes.

(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 plates and other medical diagnostic reports may also be made available for reference to his medical practitioner.

**75. Qualification and experience of persons handling hazardous substance and manner of providing necessary facilities for protecting the workers under clause (b) of section 85;**

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

(a)(i) A degree in Chemistry or Diploma in Chemical Engineering or Technology with 5 years experience; or

(ii) A Master's Degree in Chemistry or a Degree in Chemical Engineering or Technology with 5 years, experience.

The experience stipulated above shall be process operation and maintenance in the Chemical Industry.

(b) The Chief Inspector may require the Supervisor to undergo training in Health and Safety.

(2) The Syllabus and duration of the above training and the organisations conducting the training shall be approved by the Director General, Factory Advice Service and Labour Institutes or the State Government in accordance with the guidelines issued by the Director General, Factory Advice Service and Labour Institutes.

**76. Manner of providing for medical examination of a worker under sub-clause (ii) of clause (c) of section 85;**

(1) Workers employed in a 'hazardous process' shall be medically examined by a qualified medical practitioner in the following manner:-

- (a) Once before employment, to ascertain physical fitness of the person to do the particular job;
- (b) Once in a period of 6 months, to ascertain the health status of all the workers in respect of occupational health hazards to which they are exposed; and in cases where in the opinion of the Factory Medical Officer it is necessary to do so at a shorter interval in respect of any worker;
- (c) The details of pre employment and periodical medical examination carried out as aforesaid shall be recorded in the Health Register in **Form XX**.
- (2) No person shall be employed for the first time without a certificate of Fitness in **Form XIX** granted by the Medical Officer. If the Medical Officer declares a person that 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 Civil Surgeon of that area whose opinion shall be final in this regard.
- (3) Any findings of the Medical Officer revealing any abnormality or unsuitability of any person employed in the process shall immediately be reported to the Civil Surgeon of that area who shall in turn, examine the concerned worker and communicate his findings to the occupier within 30 days, If the Civil Surgeon is of the opinion that the worker so examined is required to be taken away from the process for health protection he will direct the occupier accordingly, who shall not employ the said worker in the same process. However, the worker so taken away be provided with alternate placement unless he is fully incapacitated, in the opinion of the Civil Surgeon, in which case the worker affected shall be suitably rehabilitated:
- (4) 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 Civil Surgeon of that area and after making entry to that effect in the Health Register.
- (5) An Inspector-Cum-Facilitator may, if he deems it necessary to do so refer worker to the Civil Surgeon of that area for medical examination as required under sub-rule (1) and the opinion of the Civil Surgeon in such a case shall be final. The fee required for this medical examination shall be paid by the occupier.
- (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 undergo such medical examination.
- (7) The worker taken away from employment in any process under sub-rule (2) may be employed again in the same process only after obtaining the Fitness Certificate from the Certifying Surgeon and after making entries to that effect in the Health Register.
- (8) 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

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

## (9) Occupational Health Centre:

(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: -

(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 rule 50-N and render medical assistance during any 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 as per the schedule annexed to this Rule.
- (ii) A part-time Factory Medical Officer shall be in overall charge of the Centre who shall visit the factory at least twice in a week and whose services shall be readily available during medical emergencies;
- (iii) One qualified and trained dresser-cum-compounder on duty throughout the working period;
- (iv) 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 upto 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.metre with floors and walls made of smooth and impervious surface and adequate illumination and ventilation as well as equipment as per the schedule annexed to this Rule.

(iii) There shall be one nurse, one dresser-cum-compounder and one sweeper-cum-ward boy through out 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 Schedule to the Indian Medical Degrees Act of 1916 or in the Schedules to the Indian Medical Council Act, 1956 and possess a Certificate of Training in Industrial Health of minimum three months duration recognised by the State Government:

Provided that –

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

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

(iii) In case of a person who has been working as a Factory Medical Officer for a period of not less than 3 years on the date of commencement of this rule, the Chief Inspector may, subject to the condition that the said person shall obtain the aforesaid certificate of training within a period of three years, relax the qualification.

(3) The syllabus of the course leading to the above certificate, and the organisations conducting the Course shall be approved by the Directorate General of Factory Advice Service and Labour Institutes or the State Government in accordance with the guidelines issued by the DGFASLI.

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

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

(b) Qualifications

(c) Experience, if any, and

(d) The sub-rule under which appointed.

## SCHEDULE

### Equipment for Occupational Health Centre in Factories

1. A glazed sink with hot and cold water always
2. A table with a smooth top at least 180 cm x 105 cm.
3. Means for sterilizing instruments
4. A cough
5. Two buckets or containers with close fitting lids
6. A kettle and spirit stove or other suitable means of boiling water
7. One bottle of spiritus ammeniac aromaticus (120 ml.)

8. Two medium size sponges
9. Two 'kidney' trays
10. Four cakes of toilet, preferably antiseptic soap
11. Two glass tumblers and two wine glasses
12. Two clinical thermometers
13. Two tea spoons
14. Two graduated (120 ml) measuring glasses
15. One wash bottle (1000 cc) for washing eyes
16. One bottle (one litre) carbolic lotion 1 to 20.
17. Three chairs
18. One screen
19. One electric hand torch
20. An adequate supply of tetanus toxoid
21. Coramine liquid (60 ml)
22. Tablets – antihistaminic, antispasmodic (25 each)
23. Syringes with needles – 2cc, 5 cc and 10 cc Two needle holders, big and small suturing needles and materials
24. Suturing needles and materials
25. One dissecting forceps
26. One dressing forceps
27. One scalpels
28. One stethoscope
29. Rubber bandage – pressure bandage
30. Oxygen cylinder with necessary attachments
31. One Blood Pressure apparatus
32. One Patellar Hammer
33. One Peak-flow meter for lung function measurement
34. One stomach wash set
35. Any other equipment recommended by the Factory Medical Officer according to specific need relating to manufacturing process
36. In addition –
  - (1) For factories employing 51 to 200 workers –
    1. Four plain wooden splints 900 mm x 100mm x 6mm
    2. Four plain wooden splints 350 mm x 75mm x 6mm
    3. Two plain wooden splints 250 mm x 50mm x 12mm
    4. One pair artery forceps
    5. Injections – morphia, pethidine, atropine, adrenaline, coramine, novocain (2 each)
    6. One surgical scissors
  - (2) For factories employing above 200 workers –

1. Eight plain wooden splints 900 mm x 100mm x 6mm
2. Eight plain wooden splints 350 mm x 75mm x 6mm
3. Four plain wooden splints 250 mm x 50mm x 12mm
4. Two pairs artery forceps
5. Injections – morphia, pethidine, atonine, adrenaline, coramine, novacan (2 each)
6. One surgical scissors

(10) 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 to the Occupational Health Centre.

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

(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; - Bed pan; - Urinal; - Glass

(b) **Safety equipment**

- Flares with life of 30 minutes; - Flood lights;
- Flash lights; -Fire extinguisher dry power type;
- Insulated gauntlets

(c) **Emergency Care Equipment**

(i) **Resuscitation**

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

**(ii) Immobilization**

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

**(iii) Dressings**

- Gauze pads – 4" x 4"; - Universal dressing 10" x 36",
- Roll of aluminum foils; - Soft roller bandages 6" x 5 yards; -Adhesive tape in 3" roll; - Safety pins;
- Bandage sheets; - Burn sheet.

**(iv) Poisoning**

- Syrup of Ipecae; - Activated Charcoal Pre packeted in dozes; - Snake bite kit;
- Drinking water

**(v) Emergency Medicines**

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

**77. Value of the maximum permissible limit of exposure of chemical and toxic substances in manufacturing process in any factory under section 88-** The Permissible Levels of exposure of Chemical Substances in manufacturing process in a factory for the purpose of Section 88 shall be as per the **Schedule I**.

**78. Appellate authority for appeal against the order of Inspector-cum-Facilitator of factory and the manner of appeal under section 90;** (1) An appeal presented under section 90 shall lie 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 and bearing court fees stamp in accordance with Article 11 of Schedule II to the Court Fees Act, 1870, and shall be accompanied by a copy of the order appealed against.

**(2) Appointment of assessors.**-On receipt of the memorandum of appeal the appellate authority shall, if it thinks fit or if the appellant has requested that the appeal should be heard with the aid of assessors, call upon the body declared under sub-rule (3) to be representatives of the industry concerned, to appoint an assessor within a period of 14 days. If an assessor is nominated by such body, the appellate authority shall appoint a second assessor itself. It shall then fix a date for the hearing of the appeal and shall give due notice of such date to the appellant and to the Inspectors whose order is appealed against, and shall call upon the two assessors to appear upon such date to assist in the hearing of the appeal.

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

(1) The Jharkhand Chamber of Commerce.

(2) The Engineering Association of India.

The body empowered to appoint the assessor shall-

- (a) if the appellant is a member of one of such bodies, be that body;
- (b) if he is a member of two such bodies, be the body which the appellant desires should appoint such assessor; and
- (c) if the appellant is not a member of the aforesaid bodies, or if he does not state in the memorandum which of such bodies he desires should appoint the assessor, be the body which the appellate body considers as the best fitted to represent the industry concerned.

**(4) Remuneration of assessors.**-An assessor appointed in accordance with the provisions of sub-rules (2) and (3) shall receive for the hearing of the appeal, **also to be fixed by the State Government**. He shall also receive the actual travelling expenses. The fees and travelling expenses shall be paid to the assessor by Government; but where assessors have been appointed at the request of the appellant and the appeal has been decided wholly or partly against him, the State Government may direct that the fees and travelling expenses of the assessor shall be paid in whole or in part by the appellant.

#### **Schedule-IV-Material Safety data sheet**

(See Rule 49)

The occupier of every factory carrying on a 'hazardous process' shall arrange to obtain or develop information in the form of Material Safety Data Sheet (MSDS) in respect of every hazardous substance or material handled in the manufacture, transportation and storage in the factory. It shall be accessible upon request to a worker for reference.

(a) 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 recognised as being aggravated by exposure to the substance;
- (vi) The primary route(s) of entry;
- (vii) The permissible limits of exposure prescribed in the Second Schedule under Section 84 of the Code, and in respect of a Chemical not covered by the said Schedule, any exposure limit used for 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;
- (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.

(b) The occupier while obtaining or developing a Material Safety Data Sheet in respect of a hazardous substance shall ensure that the information recorded accurately reflects the scientific evidence used in making the hazard determination. If he becomes newly aware of any significant evidence used in making the hazard determination. If he 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.

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

Labelling

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

- (a) the contents of the container;
- (b) the name and address of the manufacturer or importer of the hazardous substances;
- (c) the physical and health hazards; and
- (d) the recommended personal protective equipment needed to work safely with the hazardous substance.

Material Safety Data Sheet	
SECTION I – MATERIAL IDENTIFICATION AND USE	
Material Name/Identifier	
Manufacturer’s Name	Supplier’s Name
Street Address	Street Address
City State	City State
Postal Code	Postal Code
Emergency Telephone No.	Emergency Telephone No.
Chemical Name   Chemical Identity Trade Name and	
Synonyms	Product Use

SECTION II – HAZARDOUS INGREDIENTS OF MATERIAL

Hazardous Ingredients	Approximate Concentration %	C.A.S. or UN Numbers LD 50 (Specify Species and Route)	LC 50 (Specify Species and Route)	LC 50 (Specify Species and Route)

SECTION III – PHYSICAL DATA FOR MATERIAL

Physical State -- Gas -- Liquid --	Odour and Apperance	Odour Threshold	Specific Gravity
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Solid		(p.p.m)		
Vapour Pressure	Vapour density (Air=1)	Evaporation Rate	Boiling point (oC)	Freezing (oC)
Solubility in water (200C) p	pH	Density (g/ml)	Coefficient of water / oil distribution	

SECTION IV – FIRE AND EXPLOSION HAZARD OF MATERIAL

Flammability ..... Yes ..... No. .... If yes, under what conditions		
Means of Extinction		
Special Procedures		
Flash Point (oC) and Method	Upper Explosion Limit (% by Volume)	Lower Explosion Limit (% by Volume)
Anti-ignition Temperature (oC)	TDG Flammability Classification	Hazardous Combustion Products
Explosion Data-Sensitivity Chemical Impact		Sensitivity to Static Discharge

SECTION V - REACTIVITY DATA

Chemical Stability ..... Yes ..... No. .... If no, under what conditions
Incompatibility to other substances ..... Yes ..... No. .... If yes, which ones
Reactivity and under what conditions
Hazardous Decomposition Products
Material  Name / Identifier

SECTION VI – TOXICOLOGICAL PROPERTIES OF MATERIAL

Route of Entry -----Skin contact ----- Skin Absorption -----Eye Contact ----- --Inhalation Acute -----Inhalation Chronic -----Ingestion
Effects of Acute Exposure to Material

Effects of Chronic Exposure to Material	
Exposure Limit(s)	Irritancy of Material
Sensitization to Carcinogenicity, Reproductive Material Effects, Teratogenicity, Mutagenicity	
Synergistic Materials	

## SECTION VII – PREVENTIVE MEASURES

Personal Protective Equipment
Gloves (specify) Respiratory (specify) Eyes (specify)
Footwear (specify) Clothing (specify) Other (specify)
Footwear (specify) Clothing (specify) Other (specify)
Leak and Spill Procedures
Waste Disposal
Handling Procedures and Equipment
Storage Requirements
Special Shipping Information

## SECTION VIII – FIRST AID MEASURE

First Aid Measure
Sources used
Additional information

## SECTION IX – PREPARATION DATE OF M.S.D.S

Prepared by (Group, Department, etc.) (Phone No.) Date

**NOTES:**

1. CAS or UN Number – Chemical Abstract Service or United Nations (UN) Number.
2. LD 50 – Lethal Dose – 50% (LD50 – Specify species and route).
3. LC 50 – Lethal Concentration – 50% (LC50 – Specify species and route).

#### 4. TDG Flammability – Transport of Dangerous Goods Flammability Classification by United Nations.

##### Schedule- V (See Rule 51)

##### Major Industrial accident hazard control

**1. Definitions.** - For the purposes of this Schedule-unless the context otherwise requires –

(a) “hazardous chemical” mean:-

- (i) any chemical which satisfies any of the criteria laid down in part I of schedule 1 and is listed in column 2 of part II of this schedule; or
- (ii) any chemical listed in column 2 of Schedule 2; or
- (iii) any chemical listed in column 2 of Schedule 3;

(b) “Industrial activity” means –

- (i) an operation or process carried out in an industrial installation referred to in Schedule 4, involving or likely to involve one or more hazardous chemical 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.

(c) “Isolated storage ” means storage where no other manufacturing process other than pumping of hazardous chemical is carried out and that storage involves at least quantity of that chemical set out in schedule 2, but does not include associated with an installation specified in schedule 4 on the same site.

(d) “major accident” means an occurrence (including in particular’ a major emission, fire or explosion) involving one or more hazardous chemical and resulting from uncontrolled developments in the course of an industrial activity or owing to natural events, leading to a serious danger to persons, whether immediate or delayed, inside or outside the installation or damage to property or adverse effects on the environment.

(e) “pipeline” means a pipe (together with any apparatus and workers associated therewith), or system of pipes (together with any apparatus and works associated therewith) for the conveyance of a hazardous chemical, other than flammable gas as set-out in column 2 of part II of Schedule 8 at a pressure of less than 8 bars absolute.

(f) “schedule” means schedule appended to these (Rules)

(g) “site” means any location where hazardous chemical are manufactured or processes, stored, handled, used, disposed of and includes the whole of an area under the control of occupier.

(h) Words and expressions not defined in these Rule but defined or used in the Factories Act, 1948 and the Rules but Defined or used in the Factories Act, 1948 and the Rules made there under have the same meaning as assigned therein.

**3. Collection, development and dissemination of information** – (1) This Rules shall apply to an industrial activity in which a hazardous chemical which satisfies any of the criteria laid down in part I of Schedule 1 and is listed in Column 2 of Part II of this Schedule or may be involved.

(2) An occupier, who has control of an industrial activity in terms of sub- rule (1) of this Rule, shall arrange to obtain or develop detailed information on hazardous chemical in the form of a material safety data sheet as indicated in Schedule 5. The information shall be accessible to work upon request for reference.

(3) The occupier while obtaining or developing a material safety data sheet as indicated in Schedule 5 in respects of hazardous chemical handed by him shall ensure that the information is recorded accurately and reflects the scientific evidence used in making the hazard determination. In case, any significant information regarding hazard of a chemical available, It shall be added to the material safety data sheet as indicated in Schedule 5 as soon as practicable.

(4) Every container of a hazardous chemical shall be clearly labeled or marked to identify –

- (a) the contents of the container;
- (b) the name and address of the manufacturer or importer of the hazardous chemical; and
- (c) the physical, chemical and toxicological data of the hazardous chemical.

(5) In terms of sub-rule (4) of this Rule where it is impractical to label a chemical in view of the size of the container or the nature of the package, provision should be made for other effective means like tagging or accompanying documents.

**4. General responsibility of the occupiers -** (1) This Rule shall apply to –

(a) an industrial activity other than isolated storage, in which a hazardous chemical which satisfies any of the criteria laid in Part I of Schedule 1 and is listed in column 2 of part II of this Schedule therein is or may involved; and

(b) Isolated storage in which there is involved a quantity of hazardous chemical listed in column 2 of Schedule 2 which is equal to or more than the quantity specified in the Schedule for that chemical in Column 3 thereof.

(2) An occupier who has control of an industrial activity in terms of sub – rule (1) of this Rule shall provide evidence to show that he has :-

- (a) indentified the major accident hazardous; and
- (b) taken adequate steps to –
  - (i) prevent such major accident and to limit their consequences to person and the environment; and
  - (ii) provided the person working on the site the information, training and equipment including antidotes necessary to ensure their safety.

**5. Notification of Major accidents –** (1) Where a major accident occurs on a site, the occupier shall forthwith notify the inspector and the Chief Inspector of that accident, and furnish thereafter to the Chief Inspector a report relating to the accident in instalments, if necessary in Schedule 6.

(2) The Chief Inspector shall on receipt of the report in according with Sub-rule (1) of this Rule, shall undertake a full analysis of the major accident and send the requisite information to the Directors General Factory Advice Service and Labour Institutes (DGFASLI) and the Ministry of Labour through appropriate channel.

**6. Industrial activities to which Rule 7 to 15 apply-** (1) (a) Rule 7 to 9 and 13 to 15 shall apply to an industrial activity, other than isolated storage, in which there is involved a quantity of a hazardous chemical listed in column 2, of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in Column 3;

(b) Rule 10 to 12 shall apply to an industrial activity, other than Insolated storage, in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in Column 4;

(c) Rules 7 to 9 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the entry for that chemical in Column 3; and

(d) Rule 10 to 15 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the entry for that chemical in Column 4.

(2) For the purpose of Rules 7 to 15 – (a) a “new industrial activity” means an industrial activity which-

(i) was commenced after the date of coming into operation of these Rules; or

(ii) if commenced before that date, is an industrial activity in which there has been since that date a modification which would be likely to have important implications for major accident hazardous, and that activity shall be deemed to have been commenced on the date on which the modification was made; and

(b) an “existing industrial activity” means an industrial activity which is not a new industrial activity.

**7. Notification of Industrial activities** – (1) An occupier shall not undertake any industrial activity unless he has submitted a written report to the Chief Inspector containing the particulars specified in Schedule 7 at least 3 months before commencing that activity or before such shorter time as the Chief Inspector may agree and for the purpose of this sub-rule, an activity in which subsequently there in or is liable to be a quantity chemical shall be deemed to be different activity and shall be notified accordingly.

(2) No report under sub-rule (1) of this Rule needs, to be submitted by the occupier, if he submits a report under Rule 10(1).

**8. Updating of the notification under Rule 7** – Where an activity has been reported in accordance with Rule 7 (1) and the occupier makes a change in it (including an increase or decrease in the maximum quantity of a hazardous chemical to which this Rule applies which is or is liable to be at the site or in the pipeline or the cessation of the activity) which affects the particular specified in that report or any subsequent report made under this Rule, the occupier shall forthwith furnish a further report to the Chief Inspector.

**9. Transitional provision** – Where –

(a) at the date of coming into operation of these Rules, an occupier who is in control of an existing industrial activity which is required to be reported under Rule 7 (1); or

(b) within 6 months after that date an occupier commences any such new industrial activity;

It shall be sufficient compliance with that Rule if he reports to the Chief Inspector as per the particulars in Schedule 7, within 3 months after the date of coming into operation of these Rules or within longer time as the Chief Inspector may agree in writing.

**10. Safety Reports.** – (1) Subject to the following sub-rules of this Rule, an occupier shall not, undertake any industrial activity containing the information specified in Schedule 8 and has sent a copy of that report to the Chief Inspector at least 3 months before commencing that activity.

(2) In the case of a new Industrial activity which an occupier commences, or by virtue of sub-rule (2) (a) (ii) of Rule 6 is deemed to commence, within 6 months after coming into operation of these Rules, It shall be sufficient compliance with sub- rule (1) of this Rule if the occupier sends to the Chief Inspector a copy of the report required in accordance with that sub-rule within 3 months after the date of coming into operation of these Rules.

(3) In the case of an existing Industrial activity, until five years from the date of coming into operation of these Rules, it shall be a sufficient compliance with sub- rule (1) of this Rule of the occupier on or before 3 months from the date of the coming into operation of these Rules ends to the Chief Inspector, the information specified in Schedule 7 relating to activity.

**11. Updating of reports under Rule-10** – (1) Where an occupier has made a safety report in accordance with sub-rule (1) or Rule 10 he shall not make any modification to the industrial activity to which that safety report relates which could materially affects the particulars in that report, unless he has made a further report to take account of those modifications and has sent a copy of that report to the Chief Inspector at least 3 months before making those modifications.

(2) Where an occupier has made a report in accordance with rule 10 and sub-rule (1) of this Rule and that industrial activity is continuing, the occupier shall within three years of the date of the last such report, make a further report which shall have regard in particular to new technical knowledge which has affected the particulars in the previous report making to safety and hazard assessment, and shall within 1 month or in such longer time as the chief Inspector may agree in writing, send a copy of the report to the Chief Inspector.

**12. Requirements for further information** – Where in accordance with Rule 10 (1), an occupier has sent a safety report relating to an industrial activity to the Chief Inspector, the Chief Inspector may by a notice served on the occupier, require, him to provide such additional information as specified in the notice and the occupier shall send that information to the Chief Inspector within such time as is specified in the notice or within such extended time as the Chief Inspector may subsequently specify.

**13. Preparation of on- site emergency plans by the occupiers** – (1) An occupier who has control of an industrial activity to which this Rule applies shall prepare in consultation with the Chief Inspector, keep up to date and furnish to the Chief Inspector and the Inspector and on-site-emergency plan detailing activity how major accidents will be dealt with on site on which the industrial activity is carried on and that plan shall include the industrial activity is carried on and that plan shall include the name of the person who is responsible for safety on the site and the names of those who are authorised to take action in accordance with the plan in case of an emergency.

(2) The occupier shall ensure that the emergency plan prepared in accordance with sub-rule (1) of this Rule, takes into account any modification made in the industrial activity and that every person on the site who is affected by the plan in informed of its relevant provisions.

(3) The occupier shall prepare the emergency plan required under sub – rule (1) of this Rule –

(a) In the case of a new industrial activity, before that activity is commenced, except that, in the case of a new industrial activity which is commenced or is deemed to have been commenced before a date 3 month after the coming into operation of these Rules, by that date; or

(b) in the case of an existing industrial activity within 3 months of coming into operation of these Rules.

**14. Preparation of off- site emergency plans-** (1) It shall be the duty of the District Collector or the District Emergency Authority designed by the State Government in whose area there is a site on which an occupier carries on an industrial activity to which this Rule applies, to prepare and keep up to date an adequate off-site emergency plan detailing how emergencies relating to a possible major accident on that site will be dealt with and in preparing that plan the Authority shall consult the occupier, the Chief Inspector and such other persons as appear to the Authority to appropriate.

(2) The occupier shall provide the District Collector or the District Emergency Authority with such information relating to the industrial activity under his control as may be necessary to enable the District Collector or the District Emergency Authority to prepare and off-site emergency plan under sub- rule (1) of this Rule including

the nature, extent and likely effects off-site of possible major accident as well as any additional information as the District Collector or the District Emergency Authority may require in this regard.

(3) The District Collector or the District Emergency Authority shall provide the occupier with information from the off-site emergency plan with relates to his duties under Rule 13 or sub- rule (2) of this Rule.

(4) The District Collector or the District Emergency Authority shall prepare its emergency plan for any industrial activity required under sub-rule (1) of this Rule –

(a) In the case of a new Industrial activity, before that activity is commenced.

(b) In the case of an existing industrial activity, within 6 months of its being notified by the occupier of the industrial activity.

**15. Information to be given to persons liable to be affected by a major accident.-** (1) The occupier shall take appropriate steps to inform persons outside the site who are likely to be in an area, which might be affected by a major accident at any site on which an industrial activity under his control to which this Rule applies is carried on either directly or through the District Emergency Authority about –

(a) the nature of the major accident hazard; and

(b) the safety measure and the current behaviour which should be adopted in the event of a major accident.

(2) The occupier shall take the steps required under sub-rule (1) of this Rule to inform person about an industrial activity, before that activity is commenced, except that in the case of an existing industrial activity in which case the occupier shall comply with the requirements of sub-rule (1) of this Rule within 3 months of coming into operation of these Rules.

**16. Disclosure of information notified under these Rules-** Where for the purpose of evaluating information under Rule 5 or Rules 7 to 15 the Inspector or the Chief Inspector or the District Emergency Authority discloses that information some other person, that other person shall not use that information for any purpose except a purpose of the Inspector or the Chief Inspector or District Emergency Authority disclosing it, as the case may be, and before disclosing that information, the Inspector, Chief Inspector or the District Emergency Authority disclosing it, as the case may be, and before disclosing that information, the Inspector, Chief Inspector or the District Emergency Authority as the case may be, shall inform that other person of his obligations under this Rule.

**17. Improvement notice. –** (1) If an Inspector is of the opinion that an occupier -

(a) is contravening one or more of these Rules; or

(b) has contravened one or more of these Rules in circumstances that make it likely that the contravention will continue or be repeated.

He may serve on him a notice (in this Rule referred to as “an improvement notice”) stating that he is of that opinion, specifying the Rule or Rules as to which he is in that opinion, giving particulars of the reason why he is of that opinion, and requiring that occupier to remedy the contravention or, as the case may be, the matters occasioning it within such period as may be specified in the notice.

(2) A notice served under sub-rule (1) of the Rule may (but need not) include direction as to the matters to be taken by the occupier to remedy and any contravention or matter to which the notice relates.

**18. Power of the State Government to modify the Schedules-** The State Government may, at any time by notification in the Official Gazette, make Suitable Changes in the schedules.

**SUB SCHEDULE-1**

[See Rules 2 (a), 3 (1), 4 (1)(a) and 4 (2)(1)]

**Indicative Criteria and List of Chemicals****INDICATIVE CRITERIA****Part-I****(a) Toxic Chemical**

Chemicals having the following values of actual toxicity and which, owing to their physical and chemical properties and capable of producing major accident hazards.

Sl. No.	Degree of toxicity	LD 50 absorbed orally in rats mg/kg body weight	LD 50 by cutaneous absorption in rats or rabbits mg/kg body weight.	LC 50 absorbed by inhalation (4 hours) in rats mg/liter.
1	Extremely toxic	=50	=200	0.1-0.5
2	Highly toxic	51-500	201-2000	0.5-2.0

**(b) Flammable Chemical :**

- (i) Flammable gases.- Chemical which in the gaseous state at normal pressure and mixed with air become flammable and boiling point of which at normal pressure is 20 degree C or below;
- (ii) Highly flammable liquids – Chemical which have a flash point lower than 23 degree C and the boiling point of which at normal pressure is above 20 degree C;
- (iii) Flammable Liquids- Chemical which have a flash point lower than 65 degree C and which remain liquid under pressure, where Particular processing conditions, such as high pressure and high temperature, may create major accident hazards.

**(c) Explosive:**

Chemical which may explode under the effect of flame, heat or photo- chemical condition, or which are more sensitive to shocks or friction than dinitrobenzene.

**PART II****List of Hazardous Chemicals**

Sl No	Name of Chemical	Sl No	Name of Chemical
1.	Acetone	36.	Benzoyl Chloride
2.	Acetone Cyanohydrine	37.	Benzoyl Peroxide
3.	Acetylene Chloride	38.	Benzyle Chloride

4.	Acetlone (Ethyne)	39.	Benzyl Canide
5.	Arcolein (2-Propenal)	40.	Beryllium (Powders, Compounds)
6.	Acrylontirle	41.	Biphenyl
7.	Aldicarb	42.	Bis (2-Chloromethyl) Ketone
8.	Sldrine	43.	Bis (2, 4, 6-Trinitrophenyl) Amine
9.	Alkyl Phthaiate	44.	Bis (2-Chloroethyl) Sulphide
10.	Allyl Alcohol Acid and Salts.	45.	Bis (Chloromethyl) Ether
11.	Allyiamine	46.	2, 2-Bis (Tert-Butyiperoxy) Butane
12.	AiphaNaphthylThiourea (Antu)	47.	1, 1 -Bis (Tert-Butypeeohy) Cyclonexane
13.	4-Aminodiphenyl Asbestos	48.	Bis-1,2 (Tribromophenoxy) Ethane
14.	2-Aminophenol	49.	Bisphenol
15.	Amiton	50.	Boron and Compounds
16.	Ammonia	51.	Bromine
17.	Ammonium Nitrate	52.	Bromine Pentafluoride
18.	Ammonium Nitrate in Fertilizers	53.	Bromoform
19.	Ammonium Sulfamate	54.	1, 3-Butadiene
20.	Anabasine	55.	Butane
21.	Aniline	56.	N-Butanethiol
22.	P-Anisidine	57.	2-Butanone
23.	Antimony & Compounds	58.	Butoxy Ethanol
24.	Antimony Hydride (Stibine)	59.	Butyl Glycidal Ether
25.	Arsenic Hydric (Arisine)	60.	Tert-ButyiPeroxacetate
26.	Arsenic Pentoxide, Arsenic (v) Acid and Salts	61.	Tert-Butyl Petroxyisobutyrate
27.	Arsenic Trioxide, Arsenious (III) Acid and Salts	62.	Tert-Butyl Peroxyisopropyl Carbonate
28.	Acid and Salts.	63.	Tert-Butyl Peroxymalte
29.	Azinphos-Ethyl	64.	Tert-Butyl Peroxypivalate
30.	Azinphos-Methyl	65.	Butyl Vinyl Ether Acids and Salts.
31.	Barium Azide	66.	Butyamine
32.	Benzene	67.	C9-Aromatic Hydrocarbon Fraction
33.	Benzidine	68.	Cadmium and Compounds
34.	Benzidine Salts	69.	Cadmium Oxide (Fumes)
35.	Benzoquinone	70.	Calcium Cyanide

SI No	Name of Chemical	SI No	Name of Chemical
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71.	Captan	96.	Chloroethanol
72.	Captofol	97.	ChloroethylChloroformate
73.	Carbaryl (Sevin)	98.	Chlorofluorocarbons
74.	Cabofuran	99.	Chloroform
75.	Carbon Disulphide	100.	4-(Chloroformyl) Morpholine
76.	Carbon Monoxide	101.	Chloromethane
77.	Carbon Tetrachloride	102.	Chloromethyl Ether
78.	Carbophenothion	103.	ChloronitTobenzene
79.	Cellulose (use in explsovies)	104.	Chloroprene
80.	Chlorates (use in explosives)	105.	Chlorosulphuric Acid
81.	Chlordane	106.	Chloroprinitroobenzene
82.	Chlorfenvinphos	107.	Chloroxuron
83.	Chlorinated Benzenes	108.	Chromium and Compounds
84.	Chlorine	109.	Coboit and Compounds
85.	Chlorine Dioxide	110.	Copper and Compounds
86.	Chlorine Oxide	111.	Coumafuryl
87.	Chlorine Trifluoride	112.	Coumaphos
88.	Chlormequate Chloride	113.	Coumatetralyl
89.	Chloroacetal Chloride	114.	Crimidine
90.	Chloroacetaldehyde	115.	Crimidine
91.	2-Chloroaniline	116.	Cumene
92.	4-Chloroaniline	117.	Cyanophos
93.	Chlorobenzene	118.	Cyanotheate
94.	Chlorodiphenyl	119.	Cyanuric Fluoride
95.	Chloroepoxypropane	120.	Cyclehexane
<b>Sl No</b>	<b>Name of Chemical</b>	<b>Sl No</b>	<b>Name of Chemical</b>
121.	Cyclohexanol	158.	2, 2-Dihydroperoxypropone
122.	Cyclohexanone	159.	Disobutryl Peroxide
123.	Cyclphexamide	160.	Dimefox
124.	Cyclopentadiene	161.	Dimethoate
125.	Cyclopentane	162.	Dimethyl Phosphoramidosyanidic Acid
126.	CyclotetranethylenErranitramine	163.	Dimethyl Phthaiate
127.	Cyclototimethylenetrinitra	164.	Dimethylcarbomoyl Chloride
128.	DDT	165.	Dimethylinitrosomine

129.	Decabromodiphenyl Oxide	166.	Dinitrophenol Salts
130.	Demeton	167.	Dinitrotoluene
131.	Di-Isobutyryl Peroxide	168.	Diitro-o-Cresol
132.	Di-n-Propyl Peroxydicarbonate	169.	Dioxane
133.	Di-sec-Butyl Peroxydicarbonate	170.	Dioxathion
134.	Dialifos	171.	Dioxolane
135.	Diazedinitrophenol	172.	Diphacinone
136.	Diazomethane	173.	Diphosphoramie Octamethyl
137.	DibenzylPeroxycarbonate	174.	Diprophylene Glycolmethlether
138.	Dichloroacetylene	175.	Disulfoton
139.	O-Dichlorobenzene	176.	Endosulfan
140.	P-Dichlorobenzene	177.	Endrin
141.	Dichloroethane	178.	Epichlorophydrine
142.	Dischloroethyl Ether	179.	EPN
143.	2, 4-Dichlorophenol	180.	1, 2-Epoxypropane
144.	2,6-Dichlorophenol	181.	Ethion
145.	2, 4 Dichlorophenoxy Acetic Acid (2,4-D)	182.	Ethyl Carbamate
146.	1, 2-Dichlorosalicylic Acid	183.	Ethyl Either
147.	3, 5-Dichlorosalicylic Acid	184.	Ethyl Haxanol
148.	Dichlorovos (DDVP)	185.	Ethyl Mercaptan
149.	Dicrotophos	186.	Ethyl Methacrylate
150.	Dieldrin	187.	Ethyl Nitrate
151.	Diepoxybutane	188.	Ethylene
152.	Diethyl Peroxydicarbonate	189.	Ethylene Chlorophydrine
153.	Diethylene Glycol Dinitrate	190.	Ethylene Diamine
154.	DiethyleneTriamine	191.	Ethylene Dibromide
155.	Diethyleneglycol Butyl 1 Ether/ Diethyleneglycol Butyl Acetate	192.	Ethylene Cichloride
156.	Diethylenetrlamine (Deta)	193.	Ethylene Glycol Dinitrate
157.	Diglycidyl Ether	194.	Ethylene Oxide

SI No	Name of Chemical	SI No	Name of Chemical
195.	Ethylene Limine	227	Hydrogen Sulphide
196.	Fluenetil	228	Hydroquinone
197.	Pensulphothion	229	Iodine
198.	Flenetil	230	Isobenzan

199.	4-Fluoro, 2-Hydroxybutyric Acid and Salts, Esters, Amides,	231	Isodrin
200.	Fluoroacetic Acid and Salts, Esters, Amides	232	Isophorone Disocyanate
201.	Fluorobutyric Acid and Salts, Esters, Amides	233	Isopropyl Eather
202.	4 Fluorochrotonic Acid and Salts, Esters, Amides	234	Juglone (5-Hydroxynaphthalene 1,4-Dione)
203	Formaldehyde	235	Lead (Inorganic fumes and dusts)
204	Glyconitrile (Hydroxyacetonitrile)	236	Lead 2, 4, 6-Trinitroreso-crinoxide (Lead Styphnate)
205	1, Guanyl-4 Nitrosamiaoguanyl 1-Tetrazene	237	Lead Azide
206	Heptachlor	238	Leptophos
207	HexachloroCyclopentadiene	239	Lindand
208	HexachlorocyClohexane	240	Liquefied Petroleum Gas (LPG)
209	HexachlorecyClomethane	241	Maleic Anhydride
210	1, 2, 3, 7, 8, 9-Hexachloroda-benzyo Dioxine.	242	Manganese and Compounds
211	Hexafluopropene	243	MercaptoBenzothiazole
212	Hexamethylphosphoramide	244	Mercury Alkyl
213	3, 3, 6, 6, 7, 8, Hexamethyl 1, 2, 4, 5, Tetroxacy, Clononane	245	Mercury Fuslminate
214	Hexamethylenediamine	246	Mercury Methyl
215	Hexane	247	Methacrylic Anhydride
216	2, 2, 4, 4, 6, 6-Hexanitrostilbene	248	Methacrylonitrile
217	Hexavalent Chromium	249	Methacryloyl Chloride
218	Hydrazine	250	MethanesuphonylFluride
219	Hydrizine Nitrate	251	Methanethiol
220	Hydrochloric Acid	252	Methoxy Ethanol (2-Methyl Cellosolve)
221	Hydrogen	253	MethoxyEthylmercuric Acetate
222	Hydrogen Bromide	254	Methyl Acrylate

	(Hydrobromic Acid)		
223	Hydrogen Chloride (Liquefied gas)	255	Methyl Alcohol
224	Hydrogen Cyanide	256	Methyl Bromide (Bromomethane)
225	Hydrogen Fluoride	257	Methyl Chloride
226	Hydrogen Scienide	258	Methyl Chloroform

SI No	Name of Chemical	SI No	Name of Chemical
259	Methyl Cyclohexene	295	Nitrololune
260	Methyl Ethyl Ketone Peroxide	296	Octabromophenyl Oxide
261	Methyl Hydrazine	297	Oleum
262	Methyl Isobutyl Ketone	298	Oleylamine
263	Methyl Isobutyl Ketone Peroxide	299	OO-Diethyl S-Ethylsulphinyi methyl Phosphorothioate
264	Methyl Isocyanate	300	OO-Diethyl S-EthylsulphonylmethylPhosphorothioate
265	Methyl Isothiocyanate	301	OO-Diethyl S-EthylthiomethylPhosphorothioate
266	Methyl Marcaptan	302	OO-Diethyl S-IsopropylthiomethylPhosphordithioate
267	Methyl Methacryiate	303	OO-Diethyl S-PropylthiomethylPhosphorodithioate
268	Methyl Parathion	304	Oxyamyl
269	Methyl Phosphoric Dichloride	305	Oxy-lisulfoton
270	N-Methyl, 2, 4, 6-Tetranitroaniline	306	Oxygen (Liquid)
271	Methylene Chloride	307	Oxygen Difluoride
272	4,4-Methylenebis (2 Chloroaniline)	308	Ozone
273	Methyltrihlorosilane	309	Paraoxon (Diethyl 4-Nitrophenyl Phosphate)

274	Mevinphos	310	Paraquat
275	Moiybdenum and compounds	311	Parathion Methyl
276	N-Methyl-N, 2, 4, 6-N-Tetranitro-aniline	312	Paris Green (BisAceto Hex-ametraarsenitoterta Copper)
277	Nephtha (Coal Tar)	313	Pentaborane
278	2-Naphthylamine	314	Pentabromodiphenyl Oxide
279	Nickel and Compounds	315	Pentabromophenol
280	Nickel Tetracarbonyl	316	Pentachoro Naphthalene
281	O-Nitroaniline	317	Pentachlorophenol
282	P-Nitroaniline	318	Pentachlorophenol
283	Nitrobenzene	319	PentacrythrifolTetranitrate
284	P-Nitrochlorobenzene	320	Pentane
285	Nitrocyclohexane	321	Peracetic Acid
286	Nitroethane	322	Perchloroethylene
287	Nitrogen Dioxide	323	PerchloromethylMercaptan
288	Nitrogen Oxides	324	2-Pentanone, 4-Methyl
289	Nitrogen Trifluoride	325	Penol
290	Nitroglycerine	326	Phenyl Glycidal Ether
291	P-Nitrophenol	327	Phenylene P-Diamine
292	1-Nitropropate	328	Phenylmercury Acetate
293	2-Nitropropate	329	Phorate
294	Nitrosodi, ethylamine	330	Phosacetim

SI No	Name of Chemical	SI No	Name of Chemical
331	Phosfolan	361	Styrene, 11, 2, 2-Terachloroethane
332	Phosgene (Carbonyl Chloride)	362	Sulfotep

333	Phosmet	363	Sulphur Dichloride
334	Phosphamiden	364	Sulphur Dioxide
335	Phosphine (Hydrogen Phosphide)	365	Sulphur Trioxide
336	Phosphoric Acid and Esters	366	Sulphuric Acid .
337	Phosphoric Acid, BromoethylBromo (2, 2-Dimethyl Propyl) Bromoethyl Ester	367	Sulphoxide, 3-Chloropropyl
338	Phosphoric Acid, BromoethylBromo (2, 2-Dimethylpropyl) Chloroethyl Ester	368	Tellurium
339	Phosphoric Acid, ChloroethylBromo (2, 2-Dimethoxycpropyl) Chloroethyl Ester	369	Tellurium Hexafluoride
340	Phosphorous and Compounds	370	TEPP
341	Phostalan	371	Terbufos
342	Picric Acid (2, 4, 6-Trinitro-Phenol)	372	Alpha-Terabromobisphenol
343	Polybrominated Bephenyls	373	2, 2, 5, 6-Tetrachloro-2, 5-Cyclohexadiene-1, 4-Dione
344	Potassium Arsenite	374	2, 3, 7, 8-Tetrachlorodibezo-p Diosin (CDD)
345	Potassium Cholrate	375	Tetrafluoroethane
346	Promurit (3, 4-Dichlorophenyl 3-Triazenethiocarboxamide)	376	TetramethyleneDiulphotetramine.
347	1, 3-Propanesultone	377	Tetramethyl Lead
348	1 Propen-2-Omor 1, 3-Diol-diacetate	378	Tetranitromethane
349	Propylene Dichloride	379	Thallium and Compounds
350	Propylene Oxide	380	Thionazin
351	Propylenelimine	381	Thionyl Chloride
352	Pyrazoxon	382	Tirpate
353	Selenium Nexmuoride	383	Toluene

354	SemicarbazideHydrochloride	384	Toluene-2-4-Diisocyanate
355	Sodium Arseun	385	0-Toluidine
356	Sodium Azice	386	Toluene 2, 6-Diisocyanate
357	Sodium Chlorate	387	Trans-1, 4 Chlorobutene
358	Sodium Cyanide	388	1-TRI, (Cyclohexyl) StannyMH 1, 2, 4 Triazole
359	Sodium Picramate	389	1, 2, 4 Triazole
360	Sodium Selenite	390	2, 5 Triamino 2, 4, 5, Trinitrobenzene.

SI No	Name of Chemical	SI No	Name of Chemical
391	2, 4, 6-Tribromophenol	410	Trinitrobenzoic Acid
392	Trichloro Acetyl Chloride	411	2, 4, 6-Trinitroresorcinol (Styphnic Acid)
393	Trichloro Ethane	412	Trinitrotoluene
394	TrichloroNapethalene	413	Tricrthocresyl Phosphate
395	TrichloroChloromethylsilane	414	Triphenylin Chloride
396	Trichloro Dichlorophenbsilane	415	Terpentine
397	1, 1-Trichloroethane	416	Uranium and Compounds
398	TrichloroethylSillane	417	Venadium and Compunds
399	Trichloroethylene	418	Vinyl Chloride
400	Trichloromethanesulphenyl Chloride	419	Vinyl Fluoride
401	2,2,6- Trichlorophenol	420	Vinyl Toluene
402	2, 4, 5-Trichlorophenol	421	Warfarin
403	Triethylamine	422	Xylene
404	Triethylenemelamine	423	Xylidine
405	Trimethylchlorosilane	424	Zinc and Compounds
407	Trinitroaniline	425	Zironium and Compounds.
408	2, 4, 6 Trinitroanisole		

409	Trinitrobenzene		
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### SUB SCHEDULE-2

**[See Rules 2(a) (ii), 4(1) (b), 4(2) (1) and 6(1) (c) and (d) x]**

#### **Isolated storage of Installation other than those covered by Schedule 4.**

(a) The quantities set out below relate to each installation or group of installations belonging to the occupier where the distance between installation is not sufficient to avoid in foreseeable circumstances, any aggravation of major accident hazards. These quantities apply in any case to each of the installations belonging to the same occupier where the distance between the installations is less than 500 metres.

(b) For the purpose of determining the quantity of a hazardous chemical at an isolated storage, account shall also be taken of any hazardous chemical which is :-

(i) in that part of any pipeline under the control of the occupier having control of the site which is within 500 metres of that site and connected to it.

(ii) at any other site under the control of the occupier any part of the boundary of which is within 500 metres of the said site; and

(iii) in any vehicle, vessel, aircraft or hovercraft under the control of the same occupier which is used for storage purpose either at the site or within 500 metres of it.

But no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft for transporting it.

Serial No.	Chemical or groups of chemicals	Quantity (tonnes)	
		For application of Rules 4, 5, and 7 to 9	For application of Rules 10 to 15
1	2	3	4
1.	Acrylonitrile	350	5,000
2.	Ammonia	60	601
3.	Ammonium nitra (a)	350*	2,500*
4.	Ammonium nitrate fertilizers(b)	1250	10000
5.	Chlorine	10	25
6.	Flammable gases as defined in Schedule 1 paragraph (b) (i)	50	300
7.	Highly flammable liquids as defined in Schedule 1, paragraph (b) (il)	10000	100000
8.	Liquid oxygen	200	2000
9.	Sodium chlorate	25	250
10.	Sulphur dioxide	20	50
11.	Sulphur trioxide	15	100

### SUB-SCHEDULE 3

**[See Rules 2(a) (iii), 5 and 6(1) (a) and (b)]**

**List of hazardous chemicals for application of Rules 5 & 7 to 15.**

(a) The quantities set out below relate to each installation or group of installations belonging to the same occupier where the distance between the installation is not sufficient to avoid foreseeable circumstances, any aggravations of major accident hazards. These quantities apply in any case to each group of installations belonging to the same occupier where the distance between the installations is less than 500 metres.

(b) For the purpose of determining the quantity of a hazardous chemical in an industrial installation, account shall also be taken of any hazardous chemical which is:-

(i) in that part of any pipeline under the control of the occupier having control of the site, which is within 500 metres of that site and connected to it;

(ii) at any other site under the control of the same occupier any part of the boundary of which is within 500 metres of the said site; and

(iii) in any vehicle, vessel, aircraft or hovercraft under the control of the same occupier which is used for storage purpose either at the site or within 500 meters of it;

but no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft used for transporting it.

\*Where this chemical is in a state which gives it properties capable of creating a major accident hazard.

(a) This applies to ammonium nitrate and mixtures of ammonium nitrate where the nitrogen content derived from the ammonium nitrate is greater than 28 percent by weight and to aqueous solutions of ammonium nitrate where the concentration of ammonium nitrate is greater than 90 percent by weight.

(b) This applies to straight ammonium nitrate fertilizers and to compound fertilizers where the nitrogen content derived from the ammonium nitrate is greater than 28 percent by weight (a compound fertilizer contains ammonium nitrate together with phosphate and/or potash).

**Part-I**  
**NAMED CHEMICALS**

S No.	Chemical	Quantity		CAS Number
		For application of Rules 5 , 7 to 9 and 13 to 15	For application of Rules 10 to 12	
1	2	3	4	5
<b>Group 1-Toxic Chemicals</b>				
1.	Aldicarb	100		116-06-3
2.	4-Aminodiphenyl	1		92-67-1
3.	Amiton	1		78-53-5
4.	Anabasine	100		494-52-0

5.	Arsenic pentoxide, Arsenic (v) acid and salts	500		
6.	Arsenic troxide, Arsenious (iii) acid and salts	100		
7.	Arsine (Arsenic hydride)	10		
8.	Azinphos-ethyl	100		
9.	Azinphos-methyl	100		
10.	Benzidine	1		
11.	Benzidine salts	1		
12.	Beryllium (powders, compounds)	10		
13.	Bis (2-Chloroethyl) Sulphide	1		505-60-2
14.	Bis (chloromethyl) ether	1		542-88-1
15.	Carbofuran	100		1563-66-2
16.	Carbophenothion	100		786-19-6
17.	Chlorfevinphos	100		470-90-6
18.	4-(Chloroformyl) morpholine	1		15159-40-7
19.	Chloromethyl methyl ether	1		107-30-2
20.	Cobalt metal, oxides, carbonates, sulphides, as powders	1 t.		
21.	Crimidine	100		535-89-7
22.	Cyanathoate	100		3734-95-0
23.	Cycloheximide	100		66-81-9
24.	Demeton	100		8065-48-3
25.	Dialifos	100		10311-84-9
26.	oo-Diethyl S-ethylsulphinyl methyl phosphorothioate	100		2588-05-8
27.	oo-Diethyl S-ethylsulphonyl methyl phosphorthioate	100		2588-06-9
28.	oo-Diethyl S-ethylthiomethyl phosphorthioate	100		2600-69-3
29.	oo-Diethyl S-isopropylthio methyl phosphorodithioate	100		78-52-4
30.	oo-Diethyl S-propylthio-methyl phosphorothioate	100		3309-68-0
31.	Dimefox	100		115-26-4
32.	Dimethylcarbamonyl chloride	1		79-44-7
33.	Dimethylnitrosamine	1		62-75-9
34.	Dimethyl phosphoramido-cyanidic acid	1 t.		63917-41-9
35.	Diphacinone	100		82-66-6
36.	Disulfoton	100		298-04-4
37.	EPN	100		2104-64-5
38.	Ethion	100		563-12-2
39.	Fensulfothion	100		115-90-2
40.	Fluonetil	100		4301-50-2

41.	Fluoroacetic acid	1		144-49-0
42.	Fluoroacetic acid salts	1		
43.	Fluoroacetic acid esters	1		
44.	Fluoroacetic acid amides	1		
45.	4-Fluorobutyric acid	1		462-23-7
46.	4-Fluorobutyric acid salts	1		
47.	4-Fluorobutyric esters	1		
48.	4-Fluorobutyric acid amides	1		
49.	4-Fluorocrotonic acid	1		37759-72-1
50.	4-Fluorocrotonic acid salts	1		
51.	4-Fluorocrotonic acid esters	1		
52.	4-Fluorocrotonic acid amides	1		
53.	4-Fluoro-2-hydroxybutyric acid	1		
54.	4-Fluoro-2-hydroxybutyric acid, salts	1		
55.	4-Fluoro-2-hydroxybutyric acid, esters	1		
56.	4-Fluoro-2-hydroxybutyric acid amides	1		
57.	Glycolonitrile (hydroxyacetonitrile)	100		107-16-4
58.	1, 2, 3, 7, 8, 9 Hexachlorodibenzo-p-dioxin	100		19408-74-3
59.	Hexamethyl phosphoramidate	1		680-31-9
60.	Hydrogen selenide	10		7783-07-5
61.	Isobenzan	100		297-78-9
62.	Isodrin	100		465-73-6
63.	Juglone (5-Hydroxynaphthalene-1, 4-dione)	100		481-39-0
64.	4, 4-Methylenabis (2-chloroaniline)	10		101-14-4
65.	Methyl isocyanate	150	150 Kg.	624-83-9
66.	Mevinphos	100		7786-34-7
67.	2-Naphthylamine	1		91-59-8
68.	Nickel metal, oxides, carbonates sulphide, as powders	1 t.		
69.	Nickel tetracarbonyl	10		13463-39-3
70.	Oxydisulfoton	100		2497-07-6
71.	Oxygen difluoride	10		7783-41-7
72.	Paraoxon (diethyl 4-nitrophenyl phosphate)	100		311-45-5
73.	Parathion	100		56-38-2
74.	Parathion-methyl	100		298-00-0

75.	Pentaborane	100		19624-22-7
76.	Phorate	100		298-02-2
77.	Phosacetim	100		4104-14-7
78.	Phosgene (Carbonyl Chloride)	750	750 Kg.	75-44-5
79.	Phosphamidon	100		13171-21-6
80.	Phosphine (Hydrogen phosphide)	100		7803-51-2
81.	Promurit/(1, 3, 4-Dichloro-phenyl)-3-triazenethio carboxamide)	100		5836-73-7
82.	1, 3-Propanesultone	1		1120-71-4
83.	1-Propen-2-chloro-1, 3-diol diacetate	10		10118-72-6
84.	Pyrazoxon	100		108-34-9
85.	Selenium hexafluoride	10		7783-79-1
86.	Sodium selenite	100		10102-18-8
87.	Stibine (Antimonyhydride)	100		7803-52-3
88.	Sulfotop	100		3689-24-5
89.	Sulphur dichloride	1 t.		10545-99-0
90.	Tellurim hexafluoride	100		7783-80-4
91.	TEPP (Tetra Ethyl-Pyrophosphate)	100		107-49-3
92.	2, 3, 7, 8-Tetrachlorodibenzo P-dioxin (TCDD)	1		1746-01-6
93.	Tetramethy lenedisulphotetramine	1		80-12-6
94.	Thionazia	100		297-97-2
95.	Tirpate (2,4-Dimethyl-1, 3-dithiolane-2-carboxaldehyde O-methylcarbomoy-loxime)	100		26419-73-8
96.	Trichloromethane-sulphoh-enyl chloride	100		594-42-3
97.	1-Tri (Cyclohexyl) stannyl-1 H-1, 2, 4-triazole	100		41083-11-8
98.	Triethylenemenamine	10		51-18-3
99.	Warfarin	100		81-81-2
	<b>Group 2-Toxic Chemicals Quantity- 1 tonne)</b>			
100.	Acetone Cyanohydrin (2-Cyanopropan-2-ol)	200 t.		75-88-5
101.	Acrolein (2-propenal)	20 t.		107-02-8
102.	Acrylonitrile	20 t.	200 t.	107-13-1
103.	Ally alcohol (2-propen-1-01)	200 t.		107-18-6
104.	Allylamine	200 t.		107-11-9
105.	Ammonia	50 t.	500 t.	7664-41-7
106.	Bromine	40 t.		7726-95-6

107.	Carbon disulphide	20 t.	200 t.	75-15-0
108.	Chlorine	10 t.	25 t.	7782-56-5
109.	Diphenyl methane Di-isocyanate (MDI)	20 t.		101-68-8
110.	Ethylene Dibromide (1, 2-Dibromomethane)	5 t.		106-93-4
111.	Ethyleneimine	50 t.		151-56-4
112.	Formaldehyde (concentration 9%)	5 t.		50-00-0
113.	Hydrogen Chloride (liquefied gas)	25 t.	250 t.	7647-01-0
114.	Hydrogen Cyanide	5 t.	20 t.	74-90-8
115.	Hydrogen Fluoride	5 t.	50 t.	7664-39-3
116.	Hydrogen Sulphide	5 t.	50 t.	7783-06-4
117.	Methyl Bromide (Bromo-methane)	20 t.		74-83-9
118.	Nitrogen Oxides	50 t.		11104-93-1
119.	Propyleneimine	50 t.		75-55-8
120.	Sulphur Dioxide	20 t.	250 t.	7446-09-5
121.	Sulphur Trioxide	15 t.	75 t.	7446-11-9
122.	Tetraethyl Lead	5 t.		78-00-2
123.	Tetramethyl Lead	5 t.		75-74-1
124.	Toluene Di-Isocyanate (TDI)	10 t.		584-84-9
	<b>Group 3-Highly reactive Chemicals</b>			
125.	Acetylene Ethyne	5 t.		74-86-2
126.	a-Ammonium Nitrate (1)	350 t.	2500 t.	6484-52-2
	b-Ammonium Nitrate in the form of fertiliser (2)	1250 t.		
127.	1, 1-Bis (Tert-butyl Peroxy) Butane (concentration 80%)	5 t.		2167-23-9
128.	1, 1-Bis (Tert-Butyl Peroxy cyclohexane (concentration 80%)	5 t.		3006-86-8
129.	Tert-Butyl Peroxyacetate (concentration 70%)	5 t.		107-71-1
130.	Tert-Butyl Peroxyisobutyrate (concentration 80%)	5 t.		109-13-7
131.	Tert-Butyl Peroxyisopropyl Carbonate (concentration 80%)	5 t.		2372-21-6
132.	Tert-Butyl Peroxymaleate (concentration 80%)	5 t.		1931-62-0
133.	Tert-butyl peroxy pivalate (concentration 77%)	50 t.		927-07-1

134.	Dibenzyl peroxydicarbonate (concentration90%)	5 t.		2144-45-8
135.	Di-Sec-Butyl Peroxydicarbonate (concentration80%)	5 t.		19910-65-7
136.	Diethyl Peroxydicarbonate (concentration30%)	50 t.		14666-78-5
137.	2, 2-Dihydroperoxypropane (concentration30%)	5 t.		2614-76-8
138.	Di-isobutryl peroxide (concentration50%)	50 t.		3437-84-1
139.	Di-n-Propyl peroxydicarbonate (concentration80%)	5 t.		16066-38-9
140.	Ethylene Oxide	5 t.	50 t.	75-21-8
141.	Ethyl Nitrate	50 t.		625-58-1
142.	3, 3, 6, 6, 9, 9, Hexamethyl-1, 2, 4, 5-tetroxacyclonane (concentration 75%)	50 t.		22397-33-7
143.	Hydrogen	2 t.	50 t.	1333-74-0
144.	Liquid oxygen	200 t.		7782-44-7
145.	Methyl Ethyl Ketone Paroxide (concentration 60%)	5 t.		1338-23-4
146.	Methyl Isobutyl Ketone Peroxide (concentration 60%)	50 t.		37206-20-5
147.	Peracetic Acid (concentration 60%)	50 t.		79-21-0
148.	Propylene Oxide	5 t.		75.-56-9
149.	Sodium Chlorate Group 4- Explosive Chemicals	25 t.		7775-09-0
150.	Barium Azide	50 t.		18810-58-7
151.	Bis (2, 4, 6-Trinito Phenyl) amine	50 t.		131-73-7
152.	Chlorotrinitrobenzene	50 t.		28260-61-9
153.	Cellulose Nitrate (containing 12.6% nitrogen)	50 t.		9004-70-0
154.	Cyclotetramethylene tetranitramine	50 t.		2691-41-0
155.	Cyclotrimethylene trinitroamine	50 t.		121-82-4
156.	Diazodinitrophenol	10 t.		7008-81-3
157.	Diethylene Glycol Dinitrate	10 t.		693-21-0
158.	Dinitrophenol, Salts	50 t.		
159.	Ethylene Glycol Dinitrate	10 t.		628-96-6
160.	l-Guanyl-4-	10 t.		109-27-3

	Nitrosamineoguanyl Tetrazene	1-			
161.	2, 2', 4, 4', 6, 6 -Hexanitro- stilbene		50 t.		20062-22-0
162.	Hydrazine Nitrate		50 t.		13464-97-6
163.	Lead Azide		50 t.		13424-46-9
164.	Lead styphnate (lead 2, 4, 6- trinitroresorc inoxide)		50 t.		15245-44-0
165.	Mercury Fulminate		10 t.		628-86-4
166.	N-Methyl-N-2, 4, 6-Tetranitro- aniline		50 t.		479-45-8
167.	Nitroglycerine		10 t.	10 t.	55-63-0
168.	Pentaerythritol Tetranitrate		50 t.		78-11-5
169.	Picric Acid (2,4/6-Trinitro- phenol)		50 t.		88-89-1
170.	Sodium Picramate		50 t.		831-52-7
171.	Styphnic Acid (2, 4, 6-trinitro- resorcinol		50 t.		82-71-3
172.	1, 3, 5-Triamino-2, 4, 6- trinitrobenzene		50 t.		3058-38-6
173.	Trinitroaniline		50 t.		26952-42-1
174.	2, 4, 6-Trinitroanisole		50 t.		606-35-9
175.	T rinitrobenzene		50 t.		25377-32-6
176.	Trinitrobenzoic Acid		50 t.		35860-50-5
177.	Trinitrocresol		50 t.		28905-71-7
178.	2, 4, 6-Trinitrophenetole		50 t.		4732-14-3
179.	2, 4, 6-Trinitrotoluene		50 t.	50 t.	118-96-7

**SUB SCHEDULE-4****[See Rule 2 (b) (i)]****Industrial installation within the meaning of Rule 2 (b) (i)**

1. Installations for the production, processing or treatment of organic or inorganic chemicals using for this purpose, among others ;
  - (a) alkylation.
  - (b) amination by amination.
  - (c) carbonylation.
  - (d) condensation.
  - (e) dehydrogenation.
  - (f) esterification.
  - (g) halogenation and manufacture of halogens.
  - (h) hydrogenation.
  - (i) hydrolysis.
  - (j) oxidation.
  - (k) polymerization.
  - (l) sulphonation.
  - (m) desulphurization, manufacture and transformation of sulphur-containing compounds.
  - (n) nitration and manufacture of nitrogen-containing compounds.
  - (o) manufacture of phosphorus-containing compounds.
  - (p) formulation of pesticides and of pharmaceutical products.
  - (q) distillation. extraction
  - (s) salvation
  - (t) mixing
2. Installation for distillation, refining or other processing of petroleum or petroleum products.
3. Installations for the total or partial disposal of solid or liquid chemicals by incineration or chemical decomposition.
4. Installation for the production, processing or treatment of energy gases, for example, LPG, LNG, SNG.
5. Installation for the dry distillation of coal or lignite.
6. Installation for the production of metals or non-metals by wet process or by means of electrical energy.

**SUB SCHEDULE 5**

**(Format of a Material Safety Date Sheet)**

[See Rules 3(2) and (3)]

IDENTITY OF MATERIAL			
Product Name		Chemical Designation	
Trade Name		Synonymus	
Formula	Lable: Category Class	CAS Number	UN Number
Regulated Identification	Shipping Name Codes/Lable		HAZCHEM Code
	Hazardous Waste Identification Number		
Hazardous Ingredients			CAS Number
1.	;		
2.	;		
3.	;		
4.	;		
2. PHYSICAL AND CHEMICAL PROPERTIES			
Physical State (Gas-, Liquid-, solid-)	Boiling Point in degree C	Vapour pressure at 35 degree C mm Hg.	
Appearance	Melting/Freezing point in degree C	Evaporation rate at 30 degree C	
Vapour	Vapour Density (air-1)	Solubility in water at 30 degree C	
Others (corrosivity etc.)	Specific Gravity (water-1)	PH	
3. FIRE AND EXPLOSIVE HAZARDS DATA			
Explosion/ Flammability	Flash point (deg.) C	LEL %	Auto ignition Temperature degree C

	Flash point (deg.) C	UEL %	TDG Flammability (Classification)	
4. REACTIVE HAZARDS				
Stability to	Impact	Hazardous	Combustion Products	
	Static Discharge	(Hazardous Decomposition Products) (conditions to avoid)		
	Reactivity			
Hazardous Polymerization		May/May not occur	(Conditions to avoid)	
Incompatibility Materials to avoid				
5. HEALTH HAZARD DATA				
Routes of Entry :		(Inhalation, Skin, mucuous membrances and eye contact and ingestion)		
Effects of Exposure/Symptoms :				
LD 50 (in rat) (Orally or percutaneous absorption) (mg/kg. Body weight)			LC 50 (in rat) (mg/1) 54 hour	
Permissible Limit (PEL)	Exposure	ppm	mg/cu.m	Short-term ppm mg/cu.m Exposure
Threshold Value (TLV of AGIH)	Limit	ppm	mg/cu.m	Limit (STEL) Odour Threshold ppm mg/cu.m
Emergency Treatment :				
6. HAZARDS SPECIFICATION				
NFPA Hazard Signal	Health	Flammability	Stability	Special
Known Hazards				
Combustible Liquid		Water Reactive Material	Irritant	
Flammable Material		Oxidiser		Sensitizer

Pyrophoric Material		Organic Peroxide		Carcinogen
Explosive Material		Corrosive Material		Mutagen
Unstable Material		Compressed Gas		Others (Specify)
7. SAFE USAGE DATA				
Ventilation		<u>General/Mechanical</u>		
		<u>Local Exhaust</u>		
Protective Equipment Required		<u>Eyes (specify)</u>		
		<u>Respiratory (specify)</u>		
		<u>Gloves (specify)</u>		
		<u>Clothing (specify)</u>		
		<u>Other (specify)</u>		
8. EMERGENCY RESPONSE DATA				
Precautions		<u>Handling &amp; Storage</u>		
		<u>Others (specify)</u>		
Fire		<u>Fire Extinguishing Media</u>		
		<u>Special Procedures</u>		
		<u>Usual Hazards</u>		
Exposure (inhalation, skin and eye contact, ingestion)		First Aid Measures		
Spills		Steps to be taken		
		Waste Disposal Method		
9. ADDITIONAL INFORMATION				
10. Sources USED				
Reference to books, journals, etc.				
11. MANUFACTURER/SUPPLIER DATA				
Firm's Mailing		Name Address Standard Packing		

Telephone Number	
Telex Number	
Telegraphic Address	Other _____
	Other _____
Contact person in Emergency	Emergency Tel. In Transit Areas

Acronyms and Glossary of terms :	
CAS : Chemical Abstract Service Registration Number.	
Un Number: United Nation Number.	
HAZCHEM Code	: Emergency Action Code (EAC), allocated by the Joint Committee of Fire Brigade Operations, UK.
TDG Flammability	: Transport of Dangerous Goods Flammability Classification by United Nations.
NFRA	: National Fire Protection Association, USA.
LD 50 and LC 50 represent the dose in mg/kg. of body weight and the concentration in mg/l for 4 hours having lethal effect on 50% of the animals (rats) treated.	
PEL	: Permissible Exposure Limit as laid down in the statutes.
TLV	: Threshold Limit Value as laid down by the American conference of Government Industrial Hygienists. (ACGIH), USA.
STEL	: Short Term Exposure Limit as laid down in the statutes or by the AGGIH Guidelines:
All efforts should be made to fill in all columns. No column should be left blank. In case certain information is not applicable or available, N/App. or N/AV. Sign may be used.	

**SUB SCHEDULE 6**

[See Rule 5 (1)]

**Information to be Furnished Regarding Notification of a Major Accident**

Report number.....

on the particular accident.

1. General date :

(a) Name of the site.

(b) Name and address of the occupier (Also state the telephone/telex number)

(c) (i) Registration number

(ii) Licence number

(As may have been allotted under any statute applicable to the site, e.g. the Factories Act).

(d) (i) Nature of industrial activity (Mention what is actually manufactured, stored, etc.)

(ii) National Industrial Classification 1987 at the four digit level.....

2. Type of major accident:

Explosion.....Fire.....Emission of..... hazardous chemical.....

3. Description of the major accident:

(a) Date, shift and hour of the accident.

(b) Department/Section and exact place where the accident took place.

(c) The process/operation undertaken in the Department/Section where the accident took place (Attach a flow-chart, if necessary)

(d) The circumstances of the accident and the hazardous chemical involved.

4. Emergency measures taken and measures envisaged to be taken to alleviate short-term effects of the accident.

5. Causes of the major accident known (to be specified)/Not known.

Information will be supplied as soon as possible.

6. Nature and extent of damage

(a) within the establishment casualties	.....Killed
	.....Injured
	.....Poisoned
-Persons exposed to the major accident	.....
-Material damage	.....
-Damage in still present	.....
-Danger no longer exists	.....
(b) Outside the establishment casualties	.....Killed
	.....Injured
	.....Poisoned
-Persons exposed to the major accident	.....
-Material damage	.....

-Damage to environment	.....
-Damage is still present	.....
-Danger no longer exists	.....

7. Data available for assessing the effects of the accident on persons and environment.

8. Steps already taken or envisaged.

(a) to alleviate medium or long-term effects of the accident,

(b) to prevent recurrence of similar major accident.

(c) Any other relevant information.

### **SUB SCHEDULE 7**

**[See Rule 7(1)]**

#### **Information to be furnished for the Notification of Activities/Sites. Particulars to be included in a notification of site.**

1. The name and address of the occupier making the notification.

2. The full postal address of the site where the notifiable industrial activity will be carried on.

3. The area of the site covered by the notification and of any adjacent site which is required to be taken into account by virtue of Schedule 2(b) and Schedule 3(b).

4. The date on which it is anticipated that the notifiable industrial activity will commence or if it has already commenced a statement to the effect.

5. The name and maximum quantity liable to be on the site of each hazardous chemical for which notification is being made.

6. Organisation structure, namely, organisation diagram for the proposed industrial activity and set up for ensuring safety and health.

7. Information relating to the potential for major accidents, namely:-

(a) Identification of major accident hazards,

(b) The condition of events which could be significant in bringing on about,

(c) A brief description of the measures taken.

8. Information relating to the site, namely :-

(a) A map of the site and its surrounding area to a scale large enough to show any features that may be significant in the assessment of the hazard or risk associated with the site.

(i) Area likely to be affected by the major accident,

(ii) population distribution in the vicinity.

(b) A scale plan of the site showing the location and quantity of all significant inventories of the hazardous chemicals.

(c) A description of the processes or storages involving the hazardous chemicals, the maximum amount of such a hazardous chemical in the given process or storage and an indication of the conditions under which it is normally held.

(d) The maximum number of persons likely to be present on site.

9. The arrangement for training of workers and equipments necessary to ensure safety of such workers.

### **SUB SCHEDULE 8**

**[See Rule 10(1)]**

#### **Information to be furnished in a Safety Report**

1. The name and address of the person furnishing the information.

2. Description of the industrial activity, namely:-

(a) Site.

(b) Construction design.

(c) Protection zones (explosion, protection, separation, distances).

(d) Accessibility of plant

(e) Maximum number of persons working on the site and particularly those of persons exposed to the hazard.

3. Description of the processes, namely:-

(a) Technical purpose of the industrial activity.

(b) Basic principles of the technological process.

(c) Process and safety-related data for the individual process stage.

(d) Process description.

(e) Safety-related types of utilities.

4. Description of the hazardous chemicals, namely:-

(a) Chemicals (quantities, substances data on physical and chemical properties, safety-related data on explosive limits, flash-point, chemical stability, toxicological data and threshold limit values, lethal concentrations).

(b) The form in which the chemicals may occur or into which they may be transformed in the event of abnormal conditions.

(c) The degree of purity of the hazardous chemical.

5. Information on the Preliminary Hazard Analysis, namely:-

(a) Type of accident,

(b) System elements or foreseen events that can lead to a major accident,

(c) Hazards,

(d) Safety relevant components.

6. Description of safety relevant units, among others:-

(a) Special design criteria,

- 
- (b) Controls and alarms,
- (c) Pressure relief system,
- (d) Quick acting valves,
- (e) Collecting tanks/dump tanks,
- (f) Sprinkler systems,
- (g) Fire protection.
7. Information on the hazard assessment, namely
- (a) Identification of hazards,
- (b) The causes of major accidents,
- (c) Assessment of hazards according to their occurrence frequency,
- (d) Assessment of accident consequences,
- (e) Safely systems,
- (f) Known accident history.
8. Description of information on organisational systems used to carry on Industrial activity safety, namely :-
- (a) Maintenance and inspection schedules,
- (b) Guidelines for the training of personnel,
- (c) Allocation and delegation of responsibility for plant safety,
- (d) Implementation of safety procedure.
9. Information on assessment of the consequences of major accidents, namely:-
- (a) Assessment of the possible release of hazardous chemicals or of energy,
- (b) Possible dispersion of released chemicals,
- (c) Assessment of the effects of the releases (size of the affected area, health effects, property damage).
10. Information on the mitigation of major accidents, namely :-
- (a) Fire brigade,
- (b) Alarm system
- (c) Emergency plan containing system of organisation used to fight the emergency, the alarm and the communication routes, guidelines for fighting the emergency, examples of possible accident sequences,
- (d) Co-ordination with the District Collector or the District Emergency Authority and its off-site emergency plan,
- (e) Notification of the nature and scope of the hazard in the event of an accident.
- (f) Antidose in the event of a release of a hazardous chemical.

## [See Rule-3 (1) (i)]

**Application for Registration for existing establishments /  
New Establishment/Amendment to certificate of Registration**

**A. Type of Establishment -**

(Factory/Motor Transport undertaking/Newspaper Establishment/Audio-Visual Production Establishment / Building and Other Construction Establishment /Plantation / Contract Work/ Manpower Supply/Other)

**B. Establishment Details.**

1. Name of Establishment:
2. Location and Address of the Establishment:
3. Others details of Establishment:
  - a. Total Number of employees engaged directly in the establishment:
  - b. Total Number of the contract employees engaged:
  - c. Total Number of Inter-State Migrant workers employed:

**4. Fill applicable part-****(a) For factories:**

Details of the manufacturing process	Full postal address and situation of the factory along with plan approval details	Name and address of the occupier and manager	Maximum number of workers to be employed on any day	Nature & Total amount of H.P. installs or propos & installed.
1	2	3	4	5

**(b) For Motor Transport Workers-**

Nature of motor transport services (e.g. City Services, Long distance freight etc)	Total number of route	Total route mileage	Total number of transport vehicle on the last date of preceding year
1	2	3	4

**(c) For building and other construction work:**

Type of Construction work	Probable period of commencement of work	Expected period for completion of work	Details of approval of the local authority
1	2	3	4

**(d) For Plantation-**

Total grant of plantation in	Full name(s) and residential address(es) of the Propreitor's and	Full name and residential address(es) of the Directors in the case of a Company	Full name and address(es) of the Chief Executives or General Manager of the

hectare	Partner's of the plantation in case it is  not registered under the Companies Act, 1956	registered under the  Companies Act, 1956.	Plantation in the Public Sector
1	2	3	4

5. Ownership Type/Sector;

6. Activity as per National Industrial Classification;

7. Details of Selected NIC Code:

8. e-sign/ digital sign of employer/ representative/applicant :

**B. Details of Employer:-**

1. Name & Address of Employer / Occupier / Owner/Agent/ Chief Executive/ port authority etc :
2. Designation :
3. Father's/ Husband's Name of the Employer :
4. Email Address, Telephone& Mobile No :

**C. Manager/ Agent Details**

1. Full name & Address of Manager/ Agent or person responsible for supervision and control of the Establishment
2. Address of Manager/ Agent:
3. Email Address, Telephone& Mobile No. :

**D. Contractor Details**

Name and Address  Contractor	Email address& Mobile of Contractor	Name of Work	Maximum No. of Contract labour engaged	Maximum no. of migrant worker employed by contractor	Date of Commencement / Probable date of Completion of work
1	2	3	4		5

**E. Others Details:-**

Signature/ E-sign/digital sign of employer

Dated:-

Place:-

**FORM-II**

[See Rule-3(1)(iii)]

**Certificate of Registration of Establishment**

Registration No.

Date

A Certificate of registration containing the following particulars is hereby granted under sub section (2) of section 3 of the Occupational Safety, Health and Working Conditions Code, 2020 (...of 2020)

to..... (Name of the establishment)

1. Nature of work carried on in the establishment (Please tick mark)

(a) Factory

(b) Contract Work

(c) Building and Other Construction Works

(d) any other work (not covered above)

2. Details of the establishment:

a. Total Number of employees engaged directly in the establishment:

b. Total Number of the employees engaged through contractor .....

c. Total Number of Contractors and their details:

c. Number of inter-state migrant workers engaged:

**3 Extra Details of establishment-**

**(a) For factories:**

Details of the manufacturing process	Full postal address and situation of the factory along with plan approval details	Name and address of the occupier and manager	Maximum number of workers to be employed on any day	Nature & Total amount of H.P. installs or propos & installed.
1	2	3	4	5

**(b) For Motor Transport Workers-**

Nature of motor transport services (e.g. City Services, Long distance freight etc)	Total number of route	Total route mileage	Total number of transport vehicle on the last date of preceding year
1	2	3	4

**(c) For building and other construction work:**

Type of Construction work	Probable period of commencement of work	Expected period for completion of work	Details of approval of the local authority
1	2	3	4

**(d) For Plantation-**

Total grant of plantation in hectare	Full name(s) and residential address(es) of the Propreitor's and Partner's of the plantation	Full name and residential address(es) of the Directors in the case of a Company registered under the	Full name and address(es) of the Chief Executives or General Manager of the Plantation in the Public Sector

	in case it is not registered under the Companies Act, 1956	Companies Act, 1956.	
1	2	3	4

4. Amount of registration fee paid.....

5. Remarks of registering officers

/Signature E -Sign/DSC of Registering Officer

along with designation

Place:

Date:

**Conditions of Registration**

- (1). Every certificate of registration issued under rule 4 shall be subject to the following conditions, namely:
  - (a). the certificate of registration shall be non-transferable;
  - (b) the number of workers employed in an establishment directly and contract employees shall not, on any day, exceed the maximum number specified in the certificate of registration; and
  - (c) Save as provided in these rules, the fees paid for the grant of registration certificate shall be non-refundable.
- (2) The employer shall intimate the change, if any, in the number of workers or the conditions of work to the registering officer within 30 days
- (3) The employer shall, within thirty days of the commencement and completion of any work, intimate to the Inspector-cum-Facilitator, having jurisdiction in the area where the proposed establishment or as the case may be work is to be executed, intimating the actual date of the commencement or, as the case may be, completion of establishment such work in **Form IV** annexed to these rules electronically.
- (4) A copy of the certificate of registration shall be displayed at the conspicuous places at the premises where the work is being carried on.

**FORM-III**

[See Rule-3(8)]

**Register of Establishment**

SI. No	Nature of work	Registration No. and date	Name and Address, location of the establishment registered	Name, Address and Contact Details 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) Plantation Work (c) Motor Transport Undertaking (d) Audio-Visual Establishment (e) Building and						

other Construction work (f) Contract work (g) Interstate Migrant Work (h) Any other work (not covered above)							
---	--	--	--	--	--	--	--

**FORM-IV**

[See Rule-3(9) & Rule- 5]

**A- Notice of Commencement / cessation 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 :-
6. In case of the notice is for commencement of work the approximate duration of work:-
7. in case of cessation, the date of cessation:

I/We hereby intimate that the work of establishment having registration No. ....dated ..... is likely to commence/cessation is likely to be completed with effect from .....

(Date)/ On ..... (Date)

**In case of cessation of work:**

I/we hereby 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.

Signature of the Employer

To,

The Inspector-cum-Facilitator

**FORM-V**

**(Rule-6)**

**The medical examination shall be conducted by a qualified medical practitioner as per following proforma:**

**A. Demographics:**

Question	Answer	Remarks
Date:		

Name of the Worker:		
Age:		
Permanent Address:		
Gender:		
Total Number of family Members:		
Total monthly family Income:		
Is the employee under ESI (Employees' State Insurance) Scheme? If yes, provide IP Number	Yes/No	
Is the employee under any other health scheme apart from ESI-Scheme? (If yes, provide the name of the scheme)	Yes/No	

**B. Occupational**

Question	Answer	Remarks
Present Designation:		
Work Profile:		
Duration of service in the present work profile:		
Working Hours per shift:		
Night Shift Per Week:		
Night Shift per Month:		

**C. Brief Review of Medical History: Diagnosed previously or currently under treatment or Currently suffering from**

Question	Answer	Remarks
----------	--------	---------

Anaemia		
Jaundice		
Asthma		
COPD		
History of Any other Lung Disease: (If Yes, Please Specify)		
Vertigo/Dizziness		
Diabetes Mellitus		
Hypertension		
Any Cancer (If Yes, Please Specify the Cancer)		
Chronic Low Back Pain		
Chronic Pain in hand or Elbow		
Hernia		
Hydrocele		
Varicose Vein		
Haemorrhoids		
History of amputation/fracture/dislocation injury during work (If Yes, please specify)		
Dermatitis (If Yes, specify Site)		
Hearing Impairment		
Visual Impairment		
Any Major Illness requiring hospitalization in last 1 year (If Yes, Name of the Disease)		
Occupational Injury in Last 1 year: if yes Specify the Location of injury and frequency		

#### D. Current Symptoms-Diseases Module

Question	Answer	Remarks
----------	--------	---------

Smoking habit		
Chewing Tobacco or Pan Masala or Gutkha:		
Alcohol Addiction		
Dermatosis (Irritant Contact Dermatitis/Eczema/Chloracne/Allergic Contact Dermatitis):		
Mucosal Irritation of eyes/Nose/Throat with response to chemical agent or biological agent:		
Symptoms like Respiratory Difficulty/ Chest Tightness/Dry Cough at beginning of shift:		
Currently suffering from TB:		
Jaundice or Hepatitis:		
Currently suffering from Low Back Pain		
Currently suffering from Pain in hand or Elbow:		
Currently suffering from Visual Problems		
Currently suffering from Hearing Problems		
Any current injury (amputation/ fracture/ dislocation)		
Any current musculoskeletal sprains/ strains		

**E. Physical Examination**

**Date of Examination:**

Question	Answer	Remarks
General Skin Condition: (If Any Dermatitis, please mention its location)		
Weight (in Kg):		
Height (in Meter)		
Temperature ( <sup>0</sup> F):		

BP:		
Pulse:		
SpO2:		
Respiratory Rate:		
Examination of Breast of female-employee		

**F. Investigation Report**

- Routine Blood Investigation: Attach the photocopy of the report**  
  **Blood Grouping & Rh Typing and HB Electrophoresis Once in a lifetime**

Parameter	Answer (Normal/Increase/Decrease)	Value
Hb%:		
Total WBC Count and Differential Count:		
Platelet Count:		
ESR:		
FBS:		
PPBS:		
HBA1C level		
BUN:		
Creatinine:		
Total Protein		
Albumin		
Globulin		
SGOT		
SGPT		
Bilirubin		
Urine RE		
Urine ME		

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 mine employee)****Date:**

Parameter	Answer (Normal/Increase/Decrease)	Value
Report		
Observed:		
Predicted:		
FVC:		
Observed:		
Predicted:		
FEV1/FVC:		
Final Report: Normal / Obstructive Lung Disease/Restrictive Lung Disease/ Mixed Lung Diseases		

**I. Audiometry (Pure Tone / BERA): attach the photocopy of the report (For Mine Employee)****Date:**

Parameter	Value/Result/Interpretation
Visual inspection of Eye for any abnormality like wax in external ear, infection etc	
Right Ear Hearing Threshold:	
Left Ear Hearing Threshold:	
Final Report preferable based on BERA:	
Right Ear:	
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.	
Visual Acuity: Right	
Visual Acuity: Left	
Colour Vision	
Field of Vision	
Binocularity	
Lateral Phoria	
Vertical Phoria	
Stereoscopic Vision and Depth Perception Testing	
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 contra-indication.

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

d) Evaluation for Vertigo and Dizziness

**For use of Industrial Safety Section:**

Walking freely over a horizontal bar at 1 ft. height: PASS / FAIL

Wearing a safety belt and tying the rope knot: PASS/ FAIL

Walking over a horizontal structure at 9 ft. height wearing a belt: PASS/ FAIL

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-VI**

(See Rule-8)

**NOTICE OF ACCIDENT OR DANGEROUS OCCURRENCE**

E.S.I.C. Employer's Code number : E.S.I.C. Insurance

Number of the injured person :

1. Name of employer :

2. Address of works / premises

where the accident or dangerous  
occurrence took place :

3. Nature of industry and  
LIN of the establishment/  
(Registration number of establishment) :

4. Branch or department and  
exact place where the accident or  
dangerous occurrence took place :

5. Name and address of the injured person :

6. (a) Sex :

(b) Age (at the last birthday) :

(c) Occupation of the injured person :

7. Local E.S.I.C. Office to which the  
injured person is attached :

8. Date, shift and hour of accident  
or dangerous occurrence :

9. (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 :

10. (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. :

11. 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 work; :

(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 :

12. 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. :

13. Describe briefly how the accident or dangerous occurrence took place :

14. Names and addresses of

witnesses : (1)  
(2)

15. (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.)

16. (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 :

17. (a) Physician, dispensary or hospital  
from whom or which the injured  
person received or is receiving treatment :

(b) Name of dispensary/panel doctor  
elected by the injured person :

18. (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 and Name and Designation of owner/ employer /manager/agent

Date of dispatch of report :

Place:

**Form No. VI A**

**[(see rule 8(4)]**

***Supplementary notice of accident.***

1. Name of the factory and location

2. Name of the injured person –

3. Date of accident

4. Reference of the first notice of accident in Form no. VI.

5. Date on which the worker returned to work

6. Man days lost due to the accident

Signature of the Manager or Occupier

**FORM-VII**  
[See Rule-27]  
**NOTICE OF PERIODS OF WORK**

Name of the Establishment.....Place..... District.....

Periods of work Groups, Relays	Men												Women												Description of Groups, Nature of work	Remarks			
	Total no. of men employed												Total no. of women employed																
	A			B			C			D			E			F			G			H							
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3		

On working days

From ..

To ..

From ..

To ..

From ..

To ..

On partial

Working days

From ..

To ..

From ..

To ..

Date on which this notice is first exhibited :

Signature of manager or agent :

Date :

**FORM-VIII**

(See Rule-28)

**REGISTER OF WORKERS EMPLOYED IN AN ESTABLISHMENT, WAGES, OVERTIME, FINE, DEDUCTION FOR DAMAGE OR LOSS**

Register of Wages, Overtime, Fine, Deduction for damage and Loss

Name of the Establishment:

Name of the Employer:

Name of the Owner:

PAN/TAN of the Employer:

Labour Identification Number (LIN):

Sr. no. in Employee Register	Name of the employee	Designation / Department	Duration of Payment of Wages (Monthly/ Fortnightly/ Weekly/Daily/ Piece rated)	Wage Period From-To	Total no. of days worked during the period	Total overtime (hours worked or production in case of piece workers)	Rates of wages		
							Basic	D A	Allowances
1	2	3	4	5	6	7	8	9	10

Overtime earning	Nature of acts and omissions for which fine imposed with date	Amount of fine imposed	Damage or loss caused to the employer by neglect or default of the employee	Amount of deduction from wages	Total amount of wages paid	Date of Payment	Signature	
							Employee	Employee/ Representative
11	12	13	14	15	16	17	18	19

**FORM-IX**

(See Rule-30)

**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 terms Establishment shall have the same meaning as under the Occupational Safety, Health and Working Conditions Code, 2020.
- (3) This return is to be filled-up in case of Contractor or manpower supplier who have engaged more than 50 workers employed in the relevant period.

**Applicable to All Establishments - Part-I****A. General Information:**

Sl. No.			Instructions for filling the column
1	Labour Identification Number/Registration No.		EPFO, ESIC, MCA, MoLE (LIN)
2	Period of the Return	From - To-	Period should be calendar year
3	Name of the Establishment		
4	Email ID		
5	Telephone No.		
6	Mobile number		

7	Premise name								
8	Sub-locality								
9	District								
10	State								
11	Pin code								
12	Geo Co-ordinates								
<b>B(a).</b>	<b>Hours of Work in a day</b>								
<b>B(b).</b>	<b>Number of Shifts</b>								
<b>C. Details of Manpower Deployed</b>									
<b>Details</b>	<b>Directly employed</b>				<b>Employed through Contractor</b>				<b>G r a n d T o t a l</b>
<b>Skill Category</b>	<b>Highly Skilled</b>	<b>Skilled</b>	<b>Semi-Skilled</b>	<b>Un-Skilled</b>	<b>Highly Skilled</b>	<b>Skilled</b>	<b>Semi-Skilled</b>	<b>Un-Skilled</b>	
(i) Maximum No. of employees employed in the establishment in any day during the year	Male	Female	Transgender	Total	Male	Female	Transgender	Total	
(ii) Average No. of employees employed in the establishment during the year	Male	Female	Transgender	Total	Male	Female	Transgender	Total	
(iii) Migrant Worker out of (ii) above	Male	Female	Transgender	Total	Male	Female	Transgender	Total	
(iv) Number of fixed term employee engaged	Male	Female	Transgender	Total	Male	Female	Transgender	Total	
<b>D. Details of contractors engaged in the Establishment:</b>									
Sl. No.	Name with LIN/Registration Number of the Contractor							No. of Contract Labour Engaged	
<b>E. Details of various Health and Welfare Amenities provided.</b>									
<b>Sl. No.</b>	<b>Nature of various welfare amenities provided</b>	<b>Statutory (specify the statute)</b>			<b>Instructions for filling</b>				
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	Crèches (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,	Tick yes or no in the box			Applicable to establishments and factories employing 500 workers or more, factory carrying				

	2020.		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.

<b>F. The Industrial Relations:</b>					<b>Instructions for filling</b>		
1	Is the Works Committee has been functioning. (section 3 of IR Code, 2020)		Yes/No		Industrial establishment in which 100 or more workers are employed		
(a)	Date of its constitution.						
2	Whether the Grievance Redressal Committee constituted (section 4 of IR Code, 2020)		Yes/No		Industrial establishment employing 20 or more workers are employed		
3	Number of Unions in the establishments.						
4	Whether any negotiation union exist (Section 14 of IR Code, 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:						
	<b>Discharged</b>	<b>Dismissed</b>	<b>Retrenche d</b>	<b>Terminated or Removed</b>	<b>Grand Total</b>		
7	<b>Man-days lost during the year on account of</b>						
Sl. No.	Reasons		Period / Date	No. of man-days lost	Loss in term of money		
(a)	Strike						
(b)	Lockout						
8.	<b>Details of retrenchment / lay off</b>						
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			

<b>G. Details pertaining to maternity benefit:</b>				
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	

<b>H. Details of payment of bonus:</b>			
Sl. No.	No. of employees covered under the Bonus provision	Total amount of bonus actually paid	Date on which the Bonus paid

<b>I. Details of accidents, dangerous occurrence and notifiable diseases:</b>				
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	Total number of cases of Notifiable Diseases specified in Third Schedule of the OSH Code, 2020 along with the details of affected persons

<b>J. Mandays and Production Lost due to accidents / dangerous occurrence</b>			
Sl. No.	Accident/Dangerous Occurrence	Mandays lost	Production Lost

**FORM-X**

(See Rule-31)

**REGISTER OF ACCIDENTS AND DANGEROUS OCCURRENCES**

Name of Injured person (if any)	Date of Accident or dangerous occurrence	Date of report To inspector-cum-Facilitator	Nature of accident or dangerous occurrence	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-XI**  
**[See Rule-32(i) ]**  
**REGISTER FOR LEAVE WITH WAGES**

Part I - Adults

Part II - Adolescents

Establishment:

Name of worker :

Department :

Father's Name:

Sl. No	Sl.no in the register of workers	Date of entry into service						Leave due with effect from	Whether leave not desired during the next 12 months	Date from which the worker is allowed leave	Wages for Leave Paid in	Discharged worker		Remarks
			Sickness and accidents	Authorized Leave	Lock Out or Legal Strike	Involuntary unemployment	Others					Date of Discharge	Date & amount of payment made in lieu of 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 -XII**

(See Rule-35)

**IMPROVEMENT NOTICE AND PROHIBITION ORDER****PART I****PROHIBITION ORDER**

Inspector-cum-facilitators Notice on Inspection of Establishment, Lifting Appliance, Loose Gears and other such gears, Equipment, Ladders and Staging. Inspector-cum-Facilitator's notice to the occupier, employer, owner, master, Officer-in-charge, Owner of lifting appliances, loose gears and lifting devices or the person, scaffold who, by himself, his agents, or his employers as the case may be.

Name of the establishment, lifting appliance, lifting device, transport equipment, ladders and staging	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 establishment 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 :

**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 the Inspector-cum-Facilitator. 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.

No. \_\_\_\_\_

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.

Sir,

The contravention 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

contravention 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	Place
Dated at _____ this day of _____ 20_____	Employer, Occupier, Owner, Manager, Master, Officer-in-charge or Agents, owner of machinery and gear or the person, who by himself, his agents or his employers, carried on the establishment.

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 appliances, loose gear, lifting device, transport, equipment, ladders and stagings, scaffold;	Where situated/lying used/location	Port of Registry	Official no.(if any) of the ship

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.

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.

Contraventions No. \_\_\_\_\_ 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.

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	Place
Dated at _____ this day of _____ 20_____	Employer, occupier, Owner, Master, Manager, Officer-in-charge or Agents, owner of machinery and gear or the person, who, by himself, his agents or his employers, carried on the establishment.

To

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

**FORM No. XIII**

(See rule-43(2))

**Application for permission to construct, extend or take into use any building or premises as a factory**

**BASIC INFORMATION:**

**Factory Full Name:** \_\_\_\_\_.

**Applying for :** NEW FACTORY EXTENSION

**Brief Description:** \_\_\_\_\_.

**Type of Factory:** (Select Factory Type)

**Particulars of plant to be installed:** (Select manufacturing Process)

**Others:** \_\_\_\_\_.

**Office of Deputy Chief Inspector of Factories:** Select Deputy Chief Inspector of Factories

**Office of Inspector of Factories:** Select Office of Inspector of Factories.

**Details of workers**

Maximum no of workers proposed to be employed on any one day during the year for which license is to be obtained	<b>Male</b>	<b>Female</b>	<b>Transgender</b>	<b>Total</b>
	_____	_____	_____	_____

**NATURE AND AMOUNT OF POWER :**

Nature of Power	Amount of Power	Maximum Amount of
Installed or Proposed	Power to be Used	
Total rated capacity of Machineries _____ H.P.	_____ H.P.	
Total D. G. Set / Electric Power _____ K.W.	_____ K.W.	
Generating Capacity		
Total capacity of Transformer _____ K.W.	_____ K.W.	

**Applicant Details:**

Full Name: \_\_\_\_\_ Applicant Calling : \_\_\_\_\_.

Address: \_\_\_\_\_ Landmark: \_\_\_\_\_  
 Post Office: \_\_\_\_\_ Police station: \_\_\_\_\_  
 State: \_\_\_\_\_ District: \_\_\_\_\_ Block \_\_\_\_\_  
 Pin Code: \_\_\_\_\_ Mobile No: \_\_\_\_\_ PAN No: \_\_\_\_\_ E-Mail Id : \_\_\_\_\_

**Factory Address Details:**

Address: \_\_\_\_\_ Landmark: \_\_\_\_\_  
 Post Office: \_\_\_\_\_ Police station: \_\_\_\_\_  
 State: \_\_\_\_\_ District: \_\_\_\_\_ Block \_\_\_\_\_  
 Pin Code: \_\_\_\_\_

**Factory Communication Address:** Copy same address as above

Address: \_\_\_\_\_ Landmark: \_\_\_\_\_  
 Post Office: \_\_\_\_\_ Police station: \_\_\_\_\_  
 State: \_\_\_\_\_ District: \_\_\_\_\_ Block \_\_\_\_\_  
 Pin Code: \_\_\_\_\_

**Form – XIV**  
**[Rule 68 (4)]**

**BASIC INFORMATION:**

**Factory Full Name:** \_\_\_\_\_

**Nature of Factory:** (Select Nature of Factory Type)

**Type of Factory :** (Select Factory Type)

**Nature of Manufacturing Process :** (Select Nature of Factory)

**Brief Manufacturing Process:**

**Office of Deputy Chief Inspector of Factories:** Select Deputy Chief Inspector of Factories

**Office of Inspector of Factories:** Select Office of Inspector of Factories.

**Year of start of manufacturing process:** \_\_\_\_\_

**Details of workers for the year:** \_\_\_\_\_

	Male	Female
a. Maximum no of workers proposed to <b>Total</b> be employed on any one day during the year for which license is to be obtained	_____	_____
b. Number of workers proposed to be ordinarily employed during the year for which licence is to be obtained	_____	_____

**NATURE AND AMOUNT OF POWER:**

Nature of Power of	Amount of Power Power to be Used	Maximum Amount
Installed or Proposed Total rated capacity of Machineries	_____ H.P.	_____ H.P.
Total D. G. Set / Electric Power	_____ K.W.	_____ K.W.

## Generating Capacity

Total capacity of Transformer \_\_\_\_\_ K.W. \_\_\_\_\_ K.W.

**Factory Address Details:**

Address: \_\_\_\_\_ Landmark: \_\_\_\_\_  
 Post Office: \_\_\_\_\_ Police station: \_\_\_\_\_  
 State: \_\_\_\_\_ District: \_\_\_\_\_ Block \_\_\_\_\_  
 Pin Code: \_\_\_\_\_

**Factory Communication Address:**

Address: \_\_\_\_\_ Landmark: \_\_\_\_\_  
 Post Office: \_\_\_\_\_ Police station: \_\_\_\_\_  
 State: \_\_\_\_\_ District: \_\_\_\_\_ Block \_\_\_\_\_  
 Pin Code: \_\_\_\_\_

**Manager Information:**

Full Name of the Manager : \_\_\_\_\_ Father's Name : \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_ Aadhar No.: \_\_\_\_\_  
 E-Mail Id: \_\_\_\_\_ Mobile No.: \_\_\_\_\_

**Manager Residential Address:**

Country: India Pan No.: \_\_\_\_\_  
 Address: \_\_\_\_\_ Landmark: \_\_\_\_\_  
 Post Office: \_\_\_\_\_ Police station: \_\_\_\_\_  
 State: \_\_\_\_\_ District: \_\_\_\_\_ Block \_\_\_\_\_  
 Pin Code: \_\_\_\_\_ STD Code: \_\_\_\_\_ Phone No: \_\_\_\_\_

**Occupier Information:**

Full Name of the Occupier: \_\_\_\_\_ Father's Name : \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_ Aadhar No.: \_\_\_\_\_  
 E-Mail Id: \_\_\_\_\_ Mobile No.: \_\_\_\_\_

**Occupier Residential Address:**

Country: \_\_\_\_\_ Pan No.: \_\_\_\_\_  
 Address: \_\_\_\_\_ Landmark: \_\_\_\_\_  
 Post Office: \_\_\_\_\_ Police station: \_\_\_\_\_  
 State: \_\_\_\_\_ District: \_\_\_\_\_ Block \_\_\_\_\_  
 Pin Code: \_\_\_\_\_ STD Code: \_\_\_\_\_ Phone No: \_\_\_\_\_

**PREMISES / BUILDING OWNER BASIC INFORMATION:**

Full Name of the Premises Building Owner:  
 Aadhaar No.: \_\_\_\_\_ Mobile No: \_\_\_\_\_

**Residential Address:**

Country: India Pan No.: \_\_\_\_\_  
 Address: \_\_\_\_\_ Landmark: \_\_\_\_\_  
 Post Office: \_\_\_\_\_ Police station: \_\_\_\_\_  
 State: \_\_\_\_\_ District: \_\_\_\_\_ Block \_\_\_\_\_

Pin Code: \_\_\_\_\_ STD Code: \_\_\_\_\_ Phone No: \_\_\_\_\_.

**Details of Principal products manufactured during last calendar year:**

Sl No.	Name of Product	Value of Product (In Rs.)
1.	_____	_____

**Type of Organization**

Type of Organization Body : (Select Type)

The proprietor of the factory in the case of private firm proprietary concern:

Sl No.	Name	Aadhaar No	Mobile / Phone No
1.	_____	_____	_____

**Status of Jharkhand factories Rules, 1950**

(a). Reference no and date of approval of the plans for site \_\_\_\_\_ Reference No. \_\_\_\_\_  
 Approval Date \_\_\_\_\_  
 whether for old or new building and for construction of \_\_\_\_\_  
 extension of factory by the state Govt. / Chief inspector \_\_\_\_\_

(b). Reference no and date of approval of arrangements, if \_\_\_\_\_ Reference No. \_\_\_\_\_ Approval Date \_\_\_\_\_  
 any, made for the disposal of trade waste and effluents and \_\_\_\_\_  
 the name of the authority granting such approval \_\_\_\_\_

**TERMS & CONDITIONS**

I / We do hereby certify that all the above mentioned information are true as per best of my / our knowledge. Also I accept all the terms & conditions.

**VERIFICATION**

I the above named Occupier do hereby further solemnly affirm that the contents given above are true to the best of my knowledge.

Place: \_\_\_\_\_

Date: \_\_\_\_\_

Signature of Occupier .....

**Form XV**

[see rule 68(5)(iv)]

Government of Jharkhand  
 FACTORY INSPECTION DEPARTMENT  
 (Department of Labour, Employment, Training & Skill Development)  
 LICENCE

Under Rule 43(5)(iv) to 10 of the Jharkhand Occupational Safety and Working Condition Rule 2021

Application Id -

Lincence No. -

1. Name of the Factory :

2. Licence valid up to :

3. Full Address of Factory :

Address :

Land mark :

Post Office :

Police Station :

Block :

District :

State :

PIN Code :

4. Name of Occupier :

4a. Type of organising body :

5. Maximum number of persons to be employed on any day :

Fee Datils:

6. Total installed capacity (Not Exceding)

(a) In Horse Power [Other than (b)] :

(b) In case of Elecricity generating,

Generating and Transforming Station : D.G.SET:

Transformer:

SD/-

INSPECTOR OF FACTORIES

Note :

1. This Fee is deposited for the period up to 31st December.....

2. Nature of Manufacturing process of this Licence is :.....

3. This is a compter generated certificate, does not require any seal or signature

4. This certificate has been generated on the basis of the information give by the applicant and is valid for the purpose of this act.

**FORM XVI**

**[see rule 68(7)]**

**AMENDMENT OF FACTORY LICENCE**

1.	LIN (if any)	
2.	Licence number	
NAME OF OCCUPIER		
Previous installed capacity of Generator in K. W.		
Previous installed capacity of Transformer in K. W.		

Previous installed capacity of transmitting station in K.W.	
Name and residential address of outgoing manager	
Current name of the factory	
Previous address / situation of the factory	
Current number of workers in the factory	
Current installed capacity of Motor / Engine in H.P	
Current installed capacity of Generator in K.W.	
Current installed capacity of Transformer in K.W.	
Current installed capacity of transmitting station in K.W.	
Name of current manager	
Residential address of current manager	

A.	Whether factory involves hazardous process	
B.	Whether factory involves dangerous operations	
C.	Manufacturing process to be carried on in the factory during the next twelve months	

Signature of occupier : \_\_\_\_\_

**FORM No.-XVII**

[See rules 68 (8)]

**APPLICATION FOR TRANSFER OF LICENCE**

Licence number-	_____
Registration number-	_____
LIN -	_____

Name of factory – _____
Address of factory- _____
Name of manger- _____
Total number of workers- _____
Power details – Motor capacity- _____ HP
Generation capacity- _____ KW
Transformer capacity- _____ KW
Transmitting capacity - _____ KW

Name of outgoing occupier _____
Name and address of current occupier _____
Reason for transfer of factory occupier _____

Signature of manager \_\_\_\_\_

Signature of current occupier \_\_\_\_\_

**FORM No. XVIII**

[See rule 68(12)]

**Notice of Change of Manager**

**Manager Information:**

**Type of Change :**  Temporary  Permanent

**Date of commencement of Change:** (Select Date)

Full Name of the Manager: \_\_\_\_\_ Father's Name : \_\_\_\_\_.

Date of Birth: \_\_\_\_\_ Aadhar No.: \_\_\_\_\_

E-Mail Id: \_\_\_\_\_ Mobile No.: \_\_\_\_\_

**Residential Address:**

Country: India Pan No.: \_\_\_\_\_

Address: \_\_\_\_\_ Landmark: \_\_\_\_\_.

Post Office: \_\_\_\_\_ Police station: \_\_\_\_\_.

State: \_\_\_\_\_ District: \_\_\_\_\_ Block \_\_\_\_\_.

Pin Code: \_\_\_\_\_ STD Code: \_\_\_\_\_ Phone No: \_\_\_\_\_.

**Form XIX**

**(Certificate of Fitness for Dangerous Operation/hazardous process industries)**

[See rule 68 (4) schedule III, sub schedule 15(11)]

1. Serial Number—
2. Name of person examined—
3. Father's name —
4. Sex —
5. Date of Birth—
6. Address—
7. Name of the factory in which employed/in which wishes to be employed—
8. Physical fitness—
9. Descriptive marks—
10. Process of department in which employed/wishes to be employed—
11. Whether certificate granted—
12. Whether declared unfit and certificate refused—
13. Reference number of previous certificate granted or refused—

L.T.I of person examined.

Signature of medical officer

Serial Number.....

I \_\_\_\_\_ certify that I \_\_\_\_\_ have personally examined.....(Name) son of.....

.....(Father's name) residing at.....(address) who is desirous of being employed as..... (name of factory) in..... (Deptt. & Process), that as nearly as can be ascertained from by examination, he is fit/unfit for employment at the above noted factory.

2. He is fit to be employed and may be employed on some other non-hazardous operation such as-
3. He may be produced for further examination after a period of-
4. He is advised following further examination -
5. He is advised following treatment -
6. The serial number of the previous certificate is-

L.T.I of person examined.

Signature of medical officer .

Note :- 1. The counterfoil should be retained by the medical officer and maintained in a bound book or in a file.

2. The Para which does not apply may be cancelled.

**Form No. XX**  
**[(See Rule-68 Sub-Schedules)]**  
**Health Register**

*(In respect of persons employed in occupations declared to be dangerous operations and hazardous ).*

Name of medical officer														
Name of factory----														
Registration number _____														
LIN no. _____														
Factory licence number _____														
Works No.	Name of worker	Sex	Age (last birthday)	Date of employment on present work	Date of leaving or transfer to other work	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by product handled	Date of Medical Examination by medical officer/qualified medical practitioner	Result of Medical Examination	If suspended from work, state period of suspension with detailed reasons	Re-certified to resume duty on (with signature of medical officer)	If certificate of unfitness or suspension issued to worker	Signature, with date of medical officer /qualified medical practitioner
2	3	4	5	6	7	8	9	10	11		12	13	14	15

*For transfer or discharge should be stated Unfit/Suspended.*

**Form No. XXI****[See rule 46 schedule III, sub schedule 6(7)]****Special Certificate of Fitness.****(In respect of persons employed in operations involving use of lead compounds.)**

Serial no                    ...                    ...

Date                            ...                    ...

I hereby certify that I have personally examined . . . . . son of . . . . .  
 . . . . . residing at . . . . . who is desirous of being  
 employed as . . . . . and that his/her age as nearly as can be ascertained from my  
 examination is . . . . . , years, and that he/she is in my opinion, fit for employment at work involving the  
 use of lead compounds. His/her descriptive marks are:

.....  
 .....

L.T.I. of person examined.  
 Surgeon.

Certifying

I certify that I examined the person mentioned above on.....	I extend this certificate until.....	Signature of Certifying Surgeon.	Note of symptom of lead poisoning if any.

**Form XXII****[see Rule 68 schedule III) (sub-schedule 33)]***Report of examination of Pressure Vessel*

1. Name of Occupier of factory -
2. Location and address of factory -
3. Name, description and distinctive number of pressure vessel. -
4. Name and address to manufacture -
5. Nature of process in which it is used -
6. Particulars of vessel -
  - (a) Year of manufacture -
  - (b) Date on which the vessel was first taken into use. -

- (c) Thickness of walls -
- (d) Safe working pressure recommended by the manufacture. -
- (e) History of the vessel in brief. -
- (f) Has the examiner seen the last examination and test report? -
- Was the vessel subjected to hydrostatic test? -
- If yes, the pressure applied. -
7. Is the vessel is open, or otherwise exposed to weather or to damp? -
8. Details of an examination made and test conducted by the examiner. -
9. What pressure was applied in hydraulic test was conducted by the examiner? -
10. What parts, if any, were inaccessible? -
11. Condition of vessel (State any defects materially affecting the safe working pressure or the safe working of the vessel) -
- External -
- Internal -
12. Are fittings and appliances provided in accordance with the Rules for Pressure Plants? (Name fittings and appliances provided). -
13. Are all fittings and appliances properly maintained and in good condition? If not the defects should be recorded
14. Repairs, if any required, and the period within which they should be executed and any other condition which the person making the examination thinks it necessary to specify for securing safe working.
15. Safe working pressure, calculate from dimensions and from the thickness and other data ascertained by the present examination, due allowance being made for conditions of working if unusual or exceptionally severe. (State minimum thickness of walls measured during the examination).
16. Where repairs affecting the safe working pressure are required, state the working pressure –
- (a) Before the expiration of the period specified in (15).
- (b) After the expiration of such period if the required repairs have not been completed.
- (c) After the completion of the required repairs.
17. Other observations. -

I certify that on.....the pressure vessel described above was thoroughly cleaned and (so far its construction permits) made accessible for thorough examination and that on the said date, I thoroughly examined this pressure vessel, including its fittings and that the above is a true report of my examination.

Signature.....

Qualification..... ..

Address.....

Date.....

If employed by a company or association give name and address of the Company or Association.....

## [(See Rule 68) (Schedule III) (sub schedule 33)]

**Register of Water-sealed Gas-holder**

1. Name and address of factory	...	...
2. Distinguishing number of the gas-holder	...	...
3. Locomotion and department	...	...
4. Type and gas-holder	...	...
5. Fuel used	...	...
6. Name and address of manufacturer	...	...
7. Date of manufacture	...	...
8. Capacity in cu. Metre/cu. Ft	...	...
9. Number of lifts	...	...
10. Pressure thrown by holder when full of gas	...	...

Serial No.	Date of examination carried on under sub-rules (4) and (5).	Name, qualifications, designation, of examining person.	Method and details of examination carried out.	Remarks and observations of the examining person.	Signature of the examining person.	Signature of the manager or occupier.	Details with dates of painting, overhauling, other routine maintenance work carried out.	Details with dates of repairs, modifications, or alterations carried out.		Signature with date of Manager or occupier.
								Particulars and description.	Name, qualification and designation of the person carrying out the repairs.	
1	2	3	4	5	6	7	8	9	10	11

**NOTE.** – Separate page will be allotted to each gas-holder.

**Form XXIV**

## [(See Rule 68) (Schedule III) (sub schedule 33)]

**Report of examination of Water sealed Gas-holder****PART I**

1. Name and address of the factory.
2. Department where the gas-holder is located.
3. Details of the Gas-holder.-
  - (a) Distinguishing number of the gas-holder.
  - (b) Type and description of the gas-holder.
  - (c) Name and address of the manufacturer.
  - (d) Date of manufacture.

- (e) Other details, if any.
4. Particulars of gas to be stored in holder.
5. Particulars of the condition of the following as observed at the time of examination: -
- (a) Cown.
- (b) Side sheeting, including grips and cups.
- (c) Guiding mechanism, (Roller carriages, rollers, pins, guide rails and ropes).
- (d) Tank.
- (e) Other structure, if any, including columns, farming and bracing.
- (f) Any other observation.
6. Particulars of the position of the lift as observed at the time of examination.
7. Were the tank and lifts found sufficiently level for safe working? If not, the steps necessary to remedy the defects.
8. Fittings and appliances –
- (a) Are all fittings and appliances properly maintained and in a good condition?
- (b) Repairs if any, required.
- (c) The period within which the repairs must be carried out.
9. Any other condition or measure that the examining person may consider necessary for safe working of the gas-holder.
10. Is the gas-holder in such a condition as not to be considered safe to be kept in operation?.
11. Other remarks and observations.
12. Date of Examination.

I certify that on...the gas-holder described above was thoroughly examined and such of the tests as were necessary made on the same day and that the above is a true report of my examination.

*Signature of the Examiner.*

(Full name ..... )

Date ... ..

Qualifications . . . . .

Address ..... . . . .

*Signature of Manager*

*Or*

*Occupier.*

## **PART II**

Detail of the repairs carried out or other steps or measure taken to remove the defects and to comply with the suggestions, recommendations and observations made by the examining person with dates.

Details.

Dates.

(1)

(2)

(3)

*Signature of Manager or Occupier.*

**Form No. XXV****Register of trained adult male workers employed to carry out mounting or shifting of Belts, Lubrications, etc.**

[Rule 68 Schedule III, sub-schedule 36]

1. Name of the factory, location and address .....
2. Registration number .....

Sl. No.	Name of the worker.	Serial No. in register of adult workers (from no.....) and ticket number if any.	Department in which employed.	Work on which employed. Details of training.	Signature of Manager.	Remarks.
1	2	3	4	5	6	7

**Form No. XXVI****Certificate to young person considered fit to work at Machine, Plant or Process of dangerous character**

[Rule 68 Schedule III, sub-schedule 36]

1. Serial number ...
2. Name of the factory and location ...
3. Registration number of factory ...
4. Name of the young persons ..
5. Serial number in the register of adult worker (form no ..... ) or register of child workers (form no ...)
6. Number and reference of the certificate of fitness granted by the certifying surgeon.
7. Department and machine, plant and process on which the young person is to be employed.

Certified that the young persons mentioned above have been fully instructed by me as to the dangers arising in connection with the Machine/Plant/Process mentioned above and as to the precautions to be

observed and has received sufficient training in work on the Machine/Plant/Process and that in my opinion he is fit to be employed on the said Machine/Plant/Process.

2. He is fit to be employed under the adequate and direct supervision of .....

Signature of the Manager. Signature of the Certifying Officer.

Full name and designation.

**Form No. XXVII**

**[Rule 68 Schedule III, sub-schedule 36]**

*Record of Eye Examination*

Sl. No.	Deptt/works	Name of Worker	Sex.	Age (on last birth day).	
1	2	3	4	5	
	<b>Occupation</b>	<b>Examination of eye sight</b>			
<b>Nature of work</b>	<b>Date of Employment.</b>	<b>Date</b>	<b>Result</b>	<b>Signature of Ophthalmologist.</b>	<b>Remarks.</b>
6	7	8	9	10	11

[(See Rule-69(i)]

## FORMAT OF APPLICATION TO THE SITE APPRAISAL COMMITTEE

### 1. Name and address of the applicant

### 2. Site Ownership Data

2.1 Revenue details of site such as Survey No. Plot No. etc.

2.2 Whether the site is classified as forest and if so, whether approval of the Central Government under Section 5 of the Indian Forests Act, 1927 has been taken.

2.3 Whether the proposed site attracts the provisions of Section 3(2) (v) of the E.P.Act, 1986, if so, the nature of the restrictions.

2.4 Local authority under whose jurisdiction the site is located.

### 3. Site Plan

3.1 Site Plan with clear identification of boundaries and total area proposed to be occupied and showing the following details nearby the proposed site.

(a) Historical monument, if any, in the vicinity.

(b) Names of neighboring manufacturing units and human habitats, educational and training institutions, petrol installations, storages of LPG and other hazardous substances in the vicinity and their distances from the proposed unit.

(c) Water sources (rivers, streams, canals, dams, water filtration plants, etc.) in the vicinity. (d) Nearest hospitals, fire stations, civil defence stations and police stations and their distances.

(e) High tension electrical transmission lines, pipelines for water, oil gas or sewerage; railway lines, roads, stations; jetties and other similar installations.

3.2 Details of soil conditions and depth at which hard strata obtained.

3.3 Contour map of the area showing nearby hillocks and difference in levels.

3.4 Plot Plan of the factory showing the entry and exit points, roads within, water drains, etc.

### 4. Project Report

4.1 A summary of the salient features of the Projects.

4.2 Status of the organisation (Government, Semi Government, Public or Private etc.)

4.3 Maximum number of persons likely to be working in the factory.

4.4 Maximum amount of power and water requirements and source of their supply.

4.5 Block diagram of the buildings and installations, in the proposed supply.

4.6 Details of housing colony, hospital, school and other infrastructural facilities proposed.

## **5. Organisation structure of the proposed manufacturing unit/factory**

5.1 Organisation diagrams of – - Proposed enterprise in general - Health; Safety and Environment protection departments and their linkage to operation and technical departments.

5.2 Proposed Health and Safety Policy.

5.3 Area allocated for treatment of wastes and effluent.

5.4 Percentage outlay on safety, health and environment protection measures.

## **6. Meteorological data relating to the site**

6.1 Average, minimum and maximum of - Temperature - Humidity - Wind velocities during the previous ten years

6.2 Seasonal variations of wind direction

6.3 Highest water level reached during the floods in the area recorded so far.

6.4 Lightning and seismic data of the area.

## **7. Communication Links**

7.1 Availability of telephone/telex/wireless and other communication facilities for outside communication.

7.2 Internal communication facilities proposed

## **8. Manufacturing Process Information**

8.1 Process flow diagram

8.2 Brief write-up on process and technology

8.3 Critical process parameters such as pressure buildup temperature rise and run- away reactions

8.4 Other external effects critical to the process having safety implications, such as ingress of moisture or water, contact with incompatible substances, sudden power failure.

8.5 Highlights of the built-in safety/pollution control devices or measures/incorporated in the manufacturing technology.

## **9. Information of Hazardous Materials**

9.1 Raw materials, intermediates, products and by-products and their quantities (Enclose Material Safety Data Sheet in respect of each hazardous substance)

9.2 Main and intermediate storages proposed for raw materials/intermediates/products/by-products (maximum quantities to be stored at any time).

9.3 Transportation methods to be used for materials inflow and outflow, their quantities and likely routes to be followed

9.4 Safety measures proposed for: - handling of materials; - internal and external transportation; and - disposal (packing and forwarding of finished products)

### **10. Information on Dispersal/Disposal of Wastes and Pollutants**

10.1 Major Pollutants (gas, liquid, solid) their characteristics and quantities (average and at peak loads)

10.2 Quality and quantity of solid wastes generated, method of their treatment and disposal 10.3 Air, water and soil pollution problems anticipated and the proposed measures to control the same, including treatment and disposal of effluents.

### **11. Process Hazards Information**

11.1 Enclose a copy of the report on environmental impact assessment

11.2 Enclose a copy of the report on Risk Assessment study.

11.3 Published (open or classified) reports, if any, on accident situations/occupational health hazards or similar plants elsewhere (within or outside the country)

### **12. Information of proposed Safety and Occupational Health Measures**

12.1 Details of fire fighting facilities and minimum quantity of water, CO<sub>2</sub> and or other fire fighting measures needed to meet the emergencies

12.2 Details of in-house medical facilities proposed

### **13. Information on Emergency Preparedness**

13.1 Onsite emergency plan

13.2 Proposed arrangements, if any, for mutual aid scheme with the group of neighboring factories

### **14. Any other relevant information**

I certify that the information furnished above is correct to the best of my knowledge and nothing of importance has been concealed while furnishing it.

Name and Signature of the Applicant.

<sup>1</sup>SCHEDULE-‘A’

[(Rule -43(5)]

**Scale of fees payable for Grant of licence and Annual fees for Factories defined under section 2 (m) of the Factories Act, 1948**

**Other than Electricity Generating, Transforming Factories**

Sl. No.	Total rated capacity (power) of the machineries and plants installed expressed in HORSE POWER	Maximum number of persons proposed to be employed on any one day during the year for which licence is to be taken.												
		20	50	100	250	500	750	1,000	2,000	5,000	10,000	25,000	Over 25,000	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Nil		400	1,560	1,800	2,200	3,000	4,000	6,000	7,000	8,000	9,000	9,800	12,000
2	Not Exceeding	10	900	1,600	2,200	3,000	4,600	8,000	10,000	12,000	18,000	38,000	40,000	1,00,000
3	Ditto	50	1,800	2,600	3,000	4,200	6,600	8,600	12,400	14,000	20,000	40,000	48,000	1,20,000
4	Ditto	100	2,600	4,000	6,000	8,600	10,000	16,000	18,000	22,000	26,000	32,000	60,000	1,24,000
5	Ditto	250	4,000	6,000	8,600	10,000	16,000	48,000	22,000	26,000	32,000	63,000	1,01,000	1,50,000
6	Ditto	500	21,600	27,000	28,500	30,000	33,000	42,180	49,740	56,250	1,01,250	1,26,630	1,97,340	2,92,500
7	Ditto	1,000	27,000	28,500	30,000	36,900	42,750	50,040	56,250	70,290	1,10,040	1,35,000	2,16,540	3,04,200
8	Ditto	2,000	28,500	30,000	36,900	50,100	56,250	71,250	75,300	81,300	1,18,140	1,43,790	2,26,800	3,15,000
9	Ditto	5,000	36,900	50,100	54,000	57,300	60,000	75,300	81,300	84,450	1,35,000	1,96,650	2,46,000	3,32,100
10	Ditto	10,000	54,000	57,000	60,000	75,300	31,300	84,450	1,35,000	1,34,650	1,83,000	2,46,000	2,73,900	3,63,000
11	Ditto	25,000	81,360	84,450	1,35,000	1,54,650	1,83,000	24,600	2,73,900	3,03,300	3,30,000	3,63,000	4,80,000	5,10,000

12	Above	25,000	84,450	1,54,650	1,83,000	2,46,000	2,73,900	3,03,300	3,30,000	3,93,000	4,80,000	5,07,000	5,10,000	5,40,000
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**SCHEDULE-'B'**

Scale of fees payable for Grant of Licence and Annual fees by all Electricity Generating. Transforming and Transmitting station (Factories).

(a) Generating and Transforming stations (Factories): -

	Total installed Generating Capacity in K.W.	Generating Station	Transforming (including Conversion Station)
	K.W.	Rs.	Rs.
Not exceeding	50	750	450
Ditto	100	1,150	650
Ditto	150	1,300	900
Ditto	300	1,500	1,400
Ditto	500	2,000	1,500
Ditto	750	3,000	2,250
Ditto	1,000	4,000	3,000
Ditto	2,500	7,000	4,300
Ditto	5,000	9,000	5,000
Ditto	10,000	11,000	6,000
Ditto	25,000	15,000	9,000
Ditto	50,000	24,000	12,000
Ditto	75,000	30,000	15,000
Ditto	1,00,000	39,000	18,000
Ditto	1,50,000	48,000	24,000
Ditto	2,00,000	60,000	36,000
Ditto	3,00,000	78,000	48,000
Ditto	4,00,000	96,000	60,000
Ditto	5,00,000	1,14,000	72,000
Ditto	6,00,000	1,32,000	84,000
Ditto	7,00,000	1,50,000	96,000
Above	7,00,000	1,68,000	1,08,000

b) All transmitting stations (Factories) Rs. 22,500.00

**Explanations.** –(1) total rated Capacity (power) of machinery of plants means: -

a) In case of machinery of plants which generates or provides power, the rated generating or producing capacity (power) ex-pressed in Horse Power;

**SCHEDULE-‘C’**

Scale of fees payable for grant of licence and annual fees Rs. 525.00  
for factories declared under Section 85 of the Factories Act, 1948 ( Act, 63 of 1948 ) other than  
Electricity Generating, Transforming and Transmitting Stations (Factories)

***Form- H***  
**(See rule 35)**

**APPLICATION FOR LICENSE**

<b>Application for License/ Renewal of License/Amendment of License (including Common/single license)</b>					
<b>I. Particulars of Establishment for which licence required:</b>					
1. Name of Establishment:					
2. Address of establishment					
(a) Head Office address along with email Id :					
(b) Corporate office address along with email Id:					
3. Telephone Number :					
4. Activity as per National Industrial Classification : (Select all applicable activities given)					
5. Details of selected NIC Code:					
6. Nature of work carried on in main establishment :					
<b>II. Details of Employer:</b>					
1. Full Name of Employer .....relationship with establishment.					
2. Full Address of Employer:					
3. Email Id of employer:					
4. Mobile No. of employer:					
<b>III. Particulars of the Contract Labour to be employed / is employed (If licence is required workwise)</b>					
Locations of worksites	Name of works	Date of commencement	Date of completion	Name of Establishments in which contract labour is/proposed to be employed	Name Address, email id of the Site Incharge
1	2	3	4	5	6

5. Maximum number of **contract labour/ Inter-state migrant worker** proposed to be employed on the Establishment on any date:

**IV. DETAILS OF ESTABLISHMENTS FOR WHICH COMMON LICENCE REQUIRED, (IF APPLYING FOR)**

Type of Establishments	Name & Address of establishment	(i) Nature of work carried out in the establishment (ii) Activity as per National Ind'l classification	Date of commencement	Permanent establishment or probable date of completion	Maximum number of employees employed/ proposed to be employed	Maximum number of employees employed/ proposed to be employed
1	2	3	4	5	6	7

**V. DETAILS OF ESTABLISHMENTS FOR WHICH SINGLE LICENCE IS REQUIRED (IF APPLYING FOR)**

Name of States in which the establishments are situated	Name of each work	Maximum number of labour will be/is employed	Date of commencement	Permanent establishment or probable date of completion	Maximum number of employees employed/ proposed to be employed	Registration number, if obtained, then details thereof
1	2	3	4	5	6	7

**Signature of Contractor**

**APPLICATION FOR AMENDMENT OF LICENCE :**

1. Licence No \_\_\_\_\_ Date: \_\_\_\_\_

2. LIN & PAN \_\_\_\_\_

3. Name and address of the establishment: \_\_\_\_\_

4. Details for which amendment is sought :

(a). Maximum number of worker 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 :

©. Other details requiring amendment in the licence issued (Necessary documents may be uploaded in support of change required)

**Date of Application**

**Signature of the Contractor**

**Form- I**  
(See rule 35 (2))

**Form of Certificate by Principal employer**

Certified that I have engaged the applicant (Name of the Contractor) as a contractor in my establishment. I undertake to be bound by the all provisions of occupational safety health and working conditions code 2020 and Jharkhand rules mad thereunder in so far as the provisions or applicable to me in respect of employment of contract labour by the applicant in my establishment.

Date .-

Place .-

*Signature of Principal employer Name and Address of Establishment*

**Form- J**  
(See Rule-38)

**Form of license**

Licence No.----- Reg. No.----- Date of Reg.-----

License is hereby granted to .....

(Name of the Contractor ) for the premises known as -----(name of the principal employer )

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.

The-----20..

**Issuing Authority**

Sl.N	Date of	Valid For			

o.	issue	Maximum number of Contract labour /inter-state workers on any one day	Fee	Security deposit	Date of Payment

**AMENDMENTS:**

Signature of issuing authority

Year when Amended	Maximum number of Contract labour /workers on any one day	Date of payment of amendment fee	Date of Payment	Signature of the Issuing Authority

Signature of issuing authority

**Form- K**  
(See Rule-41)

**EXPERIENCE CERTIFICATE OF CONTRACT EMPLOYEE**

<u>To whom so ever concerned</u>	
1.	Name of contractor/employer*:
2.	LIN/PAN No. of the contractor/employer *:
3.	Email Id of the contractor /employer*:
4.	Mobile No. of the contractor/employer *:
5.	Nature and location of work:
6.	Name of Principal Employer*:
7.	LIN/PAN No. of the Principal Employer:*
8.	Email Id of the Principal Employer :*
9.	Mobile No. of the Principal Employer:*
10.	Name of the worker*:
11.	UAN / Aadhaar No.:
12.	Mobile No. :
13.	Serial Number in the Employee Register:
14.	Registration number, date and name of the Board if the building and other construction worker is registered as a beneficiary:
15.	Period of Employment:
16.	Designation:
Seal and Signature of Contractor	
*Please strike off whichever is not applicable.	

To,

**Form - L**  
**(See rule 42)**

**Application for declaration of core activity**

To,

Principal Secretary/Secretary,

Labour, Employment, Training and Skill Development Department

Government of Jharkhand.

- 1- (name and address of establishment) is engaged in manufacturing of .....
- 2- The flow chart of manufacturing process is attached herewith.
- 3- activity is core activity/non-core activity of the establishment
- 4- The detail of the activity in question .....
- 5- Detail grounds of the application .....
- 6- Number of workers employed in the activity in question .....
- 7- Total number of workers employed in the establishment.....

Prayer

.....  
.....

Signature (Name and Address)

**Verification**

It is verified that the content of the application is true and correct to the best of my knowledge and belief

Signature (Name and Address)

**Form- M**

(See rule 46(1))

**Form of Agreement**

This agreement is made on this day ..... month .....year between Messers .....having office at..... (here in after referred to as the—Producer) on the first part and Shri/Smt/Kum.....son/daughter/wifeofShri.....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 audio- visual 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.

8. 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.
9. 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.
10. 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.
11. 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 therefrom; 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.
12. 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.
13. 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.

14. 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 audio-visual worker whether or not to allow his/her name to go on the credit titles of the film.

15. 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.

16. 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.

17. 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.

18. 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.

19. 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.

20. 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.

21. 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 provided 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.

22. 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 audio-visual workers whether or not to allow his/her name to go on the credit titles of the film.

23. 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.

24. 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.

25. That the audio-visual worker shall comply with all the regulations of the studio, location or work place as the case may be.

26. 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.

27. That the provisions of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952 shall be applicable to this agreement.

28. That the Producer shall not utilize 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.

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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

2.                    Witness

Name Address

audio-visual worker

Name Address

**Form-N**

(See rule 48)

**Application for grant of license**

1. Full name of the industrial premises.....
2. (i) Full postal address and situation of the industrial premises. ....  
(ii) Full address to which communication relating to the industrial premises should be sent.....  
(iii) Full address of the applicant.\* .....
3. Maximum number of employees proposed to be employed on any one day during the financial year. ....
4. Full name and residential address of the person who shall be the employer for the purposes of the Code .....
5. If the employer is a partnership company, full name and residential address of other partners or directors. (see Note at the end).....
6. Financial resources of the employer e.g., particulars and value of movable and immovable properties, bank reference, income-tax assessment.....
7. Whether the employer is a trade mark holder registered under the Trade and Merchandise Marks Act, 1958.....
8. Whether the proposed site of the industrial premises amounts to the alteration of the site of any existing industrial premises and, if so, the reasons for such alteration. ....
9. Source of obtaining tobacco.....
10. Whether the beedis or cigars or both manufactured by the applicant\* will be sold and marketed by himself or through a proprietor or a registered user of a trade mark registered under the Trade and Merchandise Marks Act, 1958, or any other person.  
.....
11. Whether the plans of the premises are enclosed. (Yes/No)
12. Amount of fee Rs. ....

I Hereby declare that the particulars furnished by me in the form are to the best of my knowledge and belief accurate

Date

Signature of applicant\*

Note .- Where an industrial premises are run or proposed to be run by a contractor for or on behalf of another person or persons or company, the said other person or persons or company is under the Act the employer and particulars to be entered for “employer” in the Form should be in regard to such person, persons or company.

\*The applicant for licence may, however, be either the contractor or the employer.

**Form- O**

(See rule 48(4))

**Form of Declaration by employer**

I/we hereby declare that the contents given in the application for license is true and complete in all respect and I/We fulfill the requirement of the license as provided in provisions of Occupational Safety Health and Working Conditions Code, 2020 and Jharkhand rules made thereunder.

I/we further declare that I/We will be fully responsible for any of the particulars given in the application and if any of the contents found incorrect the license given to me/us may be withdrawn by the Authorities under the Code, 2020.

Date .-

Signature (Name and Address)

**Form- P**

(See rule 51)

**Record of Outside work**

Name and date of Government Order permitting work outside the industrial premises ----

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

**Form-Z**

[See rule-95(1)]

**NOTICE UNDER SUB-SECTION (1) OF SECTION 114 FOR COMPOSITION OF OFFENCE**

To,

.....,

.....

.....

(1) Your establishment has been inspected by Inspector-cum-Facilitator on ..... of ..... of 20.....

(2) In the said inspection you have been found violating Section ..... of the Code.

(3) As per provisions of sub-section (1) of Section 56 read with Sub-Rule (1) of Rule 38, you are hereby given notice to the effect that if you are willing to apply for composition of offence, you may apply for composition by submitting the application in Form VI-A along with deposit of Rupees /- through treasury challan or electronically on the departmental portal of Labour Commissioner. The details of which are given below.-

(i) Treasury Head  

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

Or

(ii) Flow chart of electronic payment.-  
 .....  
 .....

(Signature)  
 Name and designation of the  
 Officer.....

**Form-AA**  
**[See rule-95 (1)]**

**APPLICATION UNDER SUB-SECTION (1) OF SECTION 114 FOR COMPOSITION OF OFFENCE**

To,

.....  
.....  
.....

Kindly refer to your notice no. .... dated ..... I/we hereby applying for composition of Offence and I have deposited Rs...../- as the amount of Composition by depositing through Treasury Challan or electronically through the portal of Labour Commissioner on ...../...../..... (dd/mm/year).

So please accept my application and close the proceeding under the Code. Dated:

Enclosure: The Treasury Challan/Payment receipt of electronic Payment.

(Signature)

Name of the Applicant

- (1) Name of the establishment:.....
- (2) Address of Establishment :.....

**Schedule – V****Chief Inspector-cum-Facilitator for various establishments under section 34(5)**

<b>S.N.</b>	<b>Name of establishment</b>	<b>Qualification &amp; Experience</b>	<b>Jurisdiction</b>	<b>Prevailing name of post in the State</b>
1	2	3	4	5
1.	Building & other construction work	Graduate	Within the respective jurisdiction	Additional Labour Commissioner/Deputy Labour Commissioner
2.	Factories	Degree in engineering with minimum fifteen years of experience in the field of administration of Factories Act, 1948 / Occupational safety, health and working condition code	Whole of the State	Chief Inspector of Factories
3.	Contract Work	Graduate	Within the respective jurisdiction	Additional Labour Commissioner/Deputy Labour Commissioner
4.	Motor Transport Undertaking	Graduate	Within the respective jurisdiction	Additional Labour Commissioner/Deputy Labour Commissioner
5.	Beedi & Cigar work	Graduate	Within the respective jurisdiction	Additional Labour Commissioner/Deputy Labour Commissioner
6.	Plantation	Graduate	Within the respective jurisdiction	Additional Labour Commissioner/Deputy Labour Commissioner
7.	Audio-visual production	Graduate	Within the respective jurisdiction	Additional Labour Commissioner/Deputy Labour Commissioner

## Schedule – VI

## Inspector-cum-Facilitator for various establishments under section 34(1)

S.N.	Name of establishment	Qualification & Experience	Jurisdiction	Prevailing name of post in the State
1	2	3	4	5
1.	Building & other construction work	Graduate	Within the respective jurisdiction	Labour Superintendant
2.	Factories	B. Tech.	Within the respective jurisdiction	Deputy Chief Inspector of Factories/Inspector of Factories
3.	Contract Work	Graduate	Within the respective jurisdiction	Assistant Labour Commissioner/Labour Superintendant
4.	Motor Transport Undertaking	Graduate	Within the respective jurisdiction	Assistant Labour Commissioner/Labour Superintendant
5.	Beedi & Cigar work	Graduate	Within the respective jurisdiction	Assistant Labour Commissioner/Labour Superintendant
6.	Plantation	Graduate	Within the respective jurisdiction	Assistant Labour Commissioner/Labour Superintendant
7.	Audio-visual production	Graduate	Within the respective jurisdiction	Assistant Labour Commissioner/Labour Superintendant

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