



# Punjab Government Gazette

## EXTRAORDINARY

***Published by Authority***

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CHANDIGARH, MONDAY, MAY 17, 2021  
(VAISAKHA 27, 1943 SAKA)

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### LEGISLATIVE SUPPLEMENT

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	Notification No. G.S.R. 45/C.A.37/2020/Ss. 133 and 135/2021, dated the 17th May, 2021, containing the draft rules, namely the Punjab Occupational Safety, Health and Working Conditions Rules, 2021.	.. 659-1003
<b>Part - IV</b>	<b>Correction Slips, Republications and Replacements</b>	
	<i>Nil</i>	

**PART III**  
**GOVERNMENT OF PUNJAB**  
**DEPARTMENT OF LABOUR**

**NOTIFICATION**

The 17th May, 2021

**G.S.R. 45/C.A.37/2020/Ss.133 and 135/2021.-** The Punjab Government proposes to make the following draft rules in exercise of the powers conferred by sections 133 and 135 of the Occupational Safety, Health and Working Conditions Code, 2020 (37 of 2020) and in supersession of ,-

- (i) the Punjab Factory Rules, 1952;
- (ii) the Punjab Control of Industrial Major Accident Hazards Rules, 1993;
- (iii) the Punjab Welfare Officers (Recruitment and Conditions of Service) Rules, 1952;
- (iv) the Punjab Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Rules, 2008;
- (v) the Punjab Contract Labour (Regulation and Abolition) Rules, 1973;
- (vi) the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) (Punjab) Rules, 1983;
- (vii) the Punjab Motor Transport Workers Rules, 1963; made in exercise of the powers conferred by section 112 of the Factories Act 1948, sections 40 and 62 of the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996, section 35 of the Contract Labour (Abolition and Regulation) Act, 1970, section 40 of the Motor Transport Workers Act, 1961 as the case may be, which are repealed by section 143 of the said the Occupational Safety, Health and Working Conditions Code, 2020, except as respects things done or omitted to be done before such supersession, are hereby notified, as required by section 137 (a) of the Code, for information of all persons likely to be affected thereby.

Notice is hereby given that draft shall be taken into consideration by the State Government on expiry of period of forty-five days from date of publication this notification in official gazette, together with any objections or suggestions which may be received by Director of Factories-cum-Labour

Commissioner, Punjab, Labour Bhawan, Model Welfare Centre, Phase-X (Sector-64), S.A.S. Nagar or at email id adfhq.lab@punjab.gov.in from any person before expiry of period specified with respect to the rules namely:-

### **DRAFT RULES**

**1. Short title, extent and commencement.-** (1) These rules may be cited as the Punjab Occupational Safety, Health and Working Conditions Rules, 2021.

- (2) They shall extend to whole of the State of Punjab.
- (3) They shall come into force on and with effect from the date of their publication in the Official Gazette.

**2. Definitions.-** (1) In these rules, unless the context otherwise requires,-

- (a) "Appendix" means an appendix appended to these rules;
- (b) "Code" means the Occupational Safety, Health and Working Conditions Code, 2020 (Central Act No. 37 of 2020);
- (c) "continuous process" means the materials either dried bulk or fluids that are being processed and are continuously in motion, undergoing chemical reaction and are subject to mechanical or heat treatment or any other process specified by State Government;
- (d) "designated authority" means an authority notified by State Government under section 119 of the Code;
- (e) "electronically" means any information submitted by email or uploaded on the portal or making digital payment through any mode for the purposes of Code;
- (f) "first employment" means the first employment in any manufacturing process to which the relevant Schedule applies and shall also include re-employment in the manufacturing process following any cessation of employment for a continuous period exceeding three calendar months;
- (g) "Form" means the form appended to these rules;
- (h) "hazardous waste" means the hazardous waste as defined in clause (17) of sub-rule (1) of rule 3 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016;

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- (i) "major accident" means an incident involving loss of life inside or outside the establishment or ten or more injuries inside and/ or one or more injuries outside or release of toxic chemical or explosion or fire or spillage of hazardous chemical resulting in 'on-site' or 'off-site' emergencies or damage to equipment leading to stoppage of process or adverse effect to the environment;
  - (j) "medium enterprise" means an enterprise as defined in clause (g) of section 2 of the Micro, Small and Medium Enterprises Development Act, 2006 (Central Act No. 27 of 2006);
  - (k) "micro enterprise" means an enterprise as defined in clause (h) of section 2 of the Micro, Small and Medium Enterprises Development Act, 2006 (Central Act No. 27 of 2006);
  - (l) "portal" means the website of the Labour department of Government of Punjab for delivering services under the Code and the rules made thereunder;
  - (m) "recognized university or institution" means,-
    - (a) any University, incorporated by law, by the Central or any State Government; or
    - (b) any other University or institution which is declared by the State Government to be a recognized University or institution for the purposes of these rules;
  - (n) "quarter" means the period of three consecutive months beginning on the 1st of January, the 1st of April, the 1st of July or the 1st of October;
  - (o) "registering officer" means an officer appointed under section 3 of the Code;
  - (p) "Schedule" means the Schedule appended to these rules;
  - (q) "section" means the section of the Code;
  - (r) "small enterprise" means an enterprise as defined in clause (m) of section 2 of the Micro, Small and Medium Enterprises Development Act, 2006 (Central Act No. 27 of 2006);
  - (s) "wages" means the wages as defined in clause (y) of section 2 of

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the Code on Wages, 2019 (Central Act No. 29 of 2019); and

- (t) “year” means the period of twelve months beginning from the 1st day of January in any year.
- (2) The words and expressions used in these rules but not defined therein, but defined in the Code, shall have the respective meanings as assigned to them in the Code.

Section 2(1)(x) **3. Income from the sources.-** For the purposes of clause (x) of sub-section 1 of section 2, the criteria for income from such sources means the income for the dependents as per the Central Civil Services (Leave Travel Concession) Rules, 1988 as amended from time to time.

Section 2(1)(l) **4. Competent person.-** (1) The Chief Inspector-cum-Facilitator may recognize any person as the competent person within such area and for such period as may be specified for the purposes of carrying out tests, examination, inspection and certification for such buildings, dangerous machinery, hoists and lifts, lifting machines and lifting tackles, pressure plant, confined space, ventilation system and such other processes of plant and equipment located in an establishment as stipulated in the Code and the rules made there under, if such person possesses the qualifications, experience and other requirements specified in the Schedule appended to this rule:

Provided that the Chief Inspector-cum-Facilitator may relax the requirements of qualifications in respect of competent person if such a person is exceptionally experience and knowledgeable:

Provided further that where it is proposed to recognise a person employed under the Chief Inspector-cum-Facilitator as a competent person, concurrence of the State Government shall be obtained and such a person after being so recognised, shall not have the powers of an Inspector-cum-Facilitator.

- (2) The Chief Inspector-cum-Facilitator may recognise an institution of repute, having persons possessing qualifications and experience as specified in the Schedule appended to this rule, for the purposes 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 processes of plant and equipment,

located in an establishment as stipulated in the Code and the rules made thereunder, a competent person within such area and for such period as may be specified.

(3) The person to be recognised as the competent person under this rule shall not be above the age of sixty-two years and shall be physically and medically fit for the purpose of carrying out the requisite tests, examination and inspection.

(4) The Chief Inspector-cum-Facilitator may give a notice on portal or any other medium in the month of May every year to recognise any person or institute to be the competent person. The process of recognition may be completed within a period of sixty days from last date of receipt of application(s).

(5) Every application shall be accompanied by a fee (non-refundable) of rupees twenty five thousand and security (refundable without interest) of rupees one lakh to be paid by the applicant through portal which shall be credited to the treasury in the head of account as may be specified by State Government from time to time. A record of such fee and security shall be maintained by the Chief Inspector-cum-Facilitator.

(6) A person or institute seeking recognition under the Code shall apply in Form-01 or Form-02, respectively.

**SCHEDULE****[Rule 4]**

Serial No.	Purpose for which competency required	Qualifications	Experience	Facilities at disposal
1.	Certification of buildings and their stability to be	<p>(a) Bachelors Degree in Civil or structural Engineering or its equivalent from recognized university; and</p> <p>(b) A Member or Associate Member of an</p> <p>(i) Institution of Civil Engineers or</p> <p>(ii) The Institution of Structural Engineers; or</p> <p>(iii) The Institution of Engineers (India) in civil engineering or structural engineering.</p>	<p>(i) an experience of a minimum period of ten years in design or construction or testing or repair of structures. Provided that experience for those who possesses master`s degree shall be minimum of seven years.</p> <p>(ii) Knowledge of non-destructive testing, various standards and Codes of practices that are current and the effect of the vibrations and natural forces on the stability of the building; and</p> <p>(iii) an ability to arrive at a reliable conclusion with regard to the safety of the structure or the building.</p>	
2.	Dangerous Machines	Bachelor`s Degree in Mechanical or production Engineering or its equivalent from recognized university.	<p>(i) an experience of working for a minimum period of ten years in:-</p> <p>(a) design or operation or maintenance or</p> <p>(b) testing, examination and inspection of</p>	Gauges for measurement and instruments for measurement of speed and any other equipment or device to determine

			relevant machinery, their guards, safety devices and appliances.	the safety in the use of the dangerous machine.
			(ii) Should :-	
			(a) be conversant with safety devices and their proper functioning	
			(b) be able to identify defects and other causes leading to the failure.	
			Provided that experience for those who possesses master`s degree shall be minimum of seven years;	
			and	
			(c) have ability to arrive at a reliable conclusion with regard to proper functioning of safety devices, appliances and machine guards	
3.	Hoists & Lifts	Bachelor`s Degree in Mechanical or Production engineering or its equivalent from recognized university.	(i) an experience of working for a minimum period of ten years in:- (c) design or erection or maintenance or (d) test and inspection procedure of hoists & lifts.	
			Provided that experience for those who possesses master`s degree shall be minimum of seven years.	



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			(ii) Should :-
			(a) be conversant with the current and relevant codes of practices and test procedures;
			(b) conversant with other statutory requirements covering the safety of hoists and lifts
			(c) be able to identify defects and arrive at a reliable conclusion and with regard to the safety of hoists and lifts
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4.	Lifting Machines, chains, Ropes and Lifting Tackles	Bachelor`s Degree in Mechanical or Metallurgical or Production Engineering or its equivalent from recognized university	<p>(i) an experience of working for a minimum period of ten years in:-</p> <p>(a) design or erection or maintenance or</p> <p>(b) test and inspection procedure of lifting machines, chains, ropes and lifting tackles.</p> <p>Provided that experience for those who possesses master`s degree shall be minimum of seven years.</p> <p>(ii) Should :-</p> <p>(a) be conversant with the current and relevant codes of practices and test procedures.</p> <p>(b) fracture machines and metallurgy of the material of construction; and</p>

			<p>(c) heat treatment or stress relieving techniques as applicable to stress bearing components and parts of lifting machinery and lifting tackles.</p> <p>(d) Capable of identifying defects and arriving at a reliable conclusion and with regard to the safety of lifting machinery, chains, ropes and lifting tackles</p>
5.	Pressure Plants	<p>Bachelor`s Degree in Chemical or Mechanical or Metallurgical or Production Engineering or its equivalent from recognized university</p>	<p>(i) an experience of working for a minimum period of ten years in:-</p> <p>(a) design or erection or maintenance or</p> <p>(b) testing, examination and inspection procedure of pressure plants</p> <p>Provided that experience for those who possesses master`s degree shall be minimum of seven years.</p> <p>(ii) Should :-</p> <p>(a) be conversant with the current and relevant codes of practices and test procedures relating to pressure plants;</p> <p>(b) conversant with statutory requirement concerning the safety of</p>

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			unfired pressure vessels and equipments operating under pressure	
			(c) conversant with non-destructive testing techniques as are applicable to pressure vessels; and	
			(d) able to identify defects and arriving at a reliable conclusion and with regard to the safety of pressure plants.	
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6.	Precautions against fumes, gases.	Bachelor`s Degree in Chemical engineering from recognized university	(i) an experience of working for a minimum period of ten years in; collection and analysis of environmental samples and calibration of monitoring equipments. Provided that experience for those who possesses master`s degree shall be minimum of seven years.	meters, instruments & devices duly calibrated and certified for carrying out the tests and certification of safety in working in confined spaces
			(ii) should be	
			(a) Be conversant with the hazardous properties of chemicals and their permissible limit values;	
			(b) Be conversant with current techniques sampling and analysis of	

			environmental contaminants; and  (c) able to arrive at a reliable conclusion as regards the safety in respect of entering and carrying out hot work	
7.	Ventilation system as required under various schedules framed under Section-82 of the Code. .	Bachelor`s Degree in Chemical or Mechanical Engineering its equivalent from recognized university.	(i) a minimum of ten years experience in design, fabrication, testing of ventilating system used for extraction and collection of dust, fumes and vapours and other ancillary equipment. Provided that experience for those who possesses master`s degree shall be minimum of seven years. (ii) he shall be conversant with relevant codes of practice and test procedures that are current in respect of ventilation and extraction system for fumes and (iii) be able to arrive at a reliable conclusion with regard to effectiveness of the system	facilities for testing the ventilating system instruments and gauges for testing the Effectiveness of extraction system for dusts, vapours & 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 system.

(7) If the qualifications and experience of the person(s) proposed to be recognized are found to be in accordance with these rules, the person may be called to appear for a test and interview before the Interview Board to be constituted by the Chief Inspector-cum-Facilitator.

(8) The Chief Inspector-cum-Facilitator based on the result of test and report of the interview Board and after satisfying himself as regards the competence and facilities available at the disposal of the applicant, may recognise the applicant as the competent person by issuing a certificate of competency in Form-03 or such application shall be disposed of by rejecting the same specifying reasons thereof.

(9) The Chief Inspector-cum-Facilitator, if he has reason to believe that a competent person,-

(a) has violated any condition stipulated in the certificate of competency; or

(b) has carried out a test, examination and inspection or has acted in a manner inconsistent with the intent or the purpose of the Code or the rules made thereunder, or has omitted to act as required under the Code or the rules made thereunder; or

(c) For any other reason to be recorded in writing,

may revoke the certificate or competency after giving an opportunity to the competent person for being heard.

(10) If the certificate of competency is revoked, the security deposited by the competent person shall be forfeited.

Section 2 (zb)

**5. Hazardous Substance.-** Hazardous Substance means any chemical along with quantity as specified in the sub-clause (ii) and (iii) of clause (e) of rule 2 of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended from time to time.

## CHAPTER-II

### REGISTRATION

Section 3 (2)

**6. Registration of establishment.-** (1) The application referred to in sub-section (1) of section (3) of the Code, shall be made to the Registering Officer, appointed under clause (b) of sub section (1) of section 3 of the Code, in Form-04 through portal giving details about the establishment and uploading documents

relating to the registration of establishment and proof of identity and address of the employer. The applicant shall be responsible for veracity of all the information submitted.

(2) Every application, referred to in sub-rule (1), shall be digitally or electronically signed by the employer.

(3) Every application referred to in sub-rule (1), shall be accompanied by the fee specified in the schedule under sub-rule 6.

(4) The employer in respect of any establishment registered under any Central law shall update the registration particulars on the portal within six months from date on which these rules come into force.

(5) Every application referred to in sub-rule (1), shall be accompanied by the information on inter-state migrant workers in Form-05.

(6) The fee to be paid for registration of an establishment shall be as per the Schedule given below:-

**SCHEDULE**

Number of employees to be employed	Fee for Registration
Up to 20	1000
21-50	2000
51-100	3000
101-150	5000
151-200	7500
201-250	10000
251-500	12500
501-750	15000
751-1000	17500
1001-1500	20000
1501-2000	25000
2001-3000	30000
3001-5000	40000
Above 5000	50000

(7) If there is any increase in the number of employees to be employed in the establishment subsequent to its registration, then the differential amount as per the schedule under sub-rule 6 shall be payable by the employer concerned.

Section 3 (3) **7. Grant of certificate of registration.-** (1) The registering officer, after receiving the application under sub-rule (1) of rule 6, shall register the establishment and issue a certificate of registration electronically to the employer thereof in such form and within such time and subject to such conditions as may be prescribed by the Central Government

(2) The registering officer shall maintain a register in Form-06, showing the particulars of establishment in relation to which the certificate of registration has been issued by him.

Section 3 (3) **8. Amendment of registration certificate.-** Where, the Registering Officer is satisfied that a change has occurred in the particulars of the establishment, as entered in the register in Form-06, he shall amend the said register and record therein the change which has occurred and certificate of registration shall be amended accordingly.

Section 3 (1) **9. Late fee for registration.-** If the application for registration is not made within the time, as specified in sub-section (1) of section 3, a late fee of twenty five percent of fee payable as specified in the schedule under sub-rule (6) of rule 6 shall be charged.

Section 3 **10. Payment of Fees for registration.-** The fees payable under rules 6 and 9 shall be paid through the portal. Such fee shall be credited to the treasury in the head of account as may be specified by the State Government from time to time.

Section 5 (1) **11. Notice of commencement and cessation.-** The employer shall, before the period of fifteen days of the commencement, give notice of commencement in Form-07 on the portal and the employer shall, within the period of thirty days of the cessation, submit a written notice in Form-08 on the portal.

### CHAPTER-III

#### DUTIES OF EMPLOYER, EMPLOYEES ETC.

Section 6 (1) (c) **12. Medical examination of employees.-** (1) Every employer of an establishment shall arrange to conduct free of cost medical examination of all the employees annually within one hundred and twenty days from the

commencement of the year as per the Schedule given under this sub-rule:

Provided that the employees engaged in handling of hazardous substance shall be medically examined bi-annually within thirty days from the 1st day of January and July.

(2) The record of medical examination shall be maintained in Form-09 and shall be made available to the Inspector-cum-Facilitator for inspection, whenever required.

### SCHEDULE

General	Blood	Urine	X ray				
Establishments							
Establishments dealing with Hazardous Process or Hazardous Substance or Hazardous Waste	Blood	Urine	X ray	PFT	Sputum	Audiometry (if applicable)	Any Other test recommended by Inspector-cum-Facilitator - cum-Facilitator declared under the code

**13. Appointment letter to employee.-** Every employer shall issue an appointment letter to every employee required to work in an establishment in Form-10. Section 6 (1) (f)

**14. Notice of accident.-** (1) When any accident which results in the death of any person or which results in such bodily injury to any person as is likely to cause his death the employer of the establishment shall forthwith send a notice thereof by telephone, special messenger or email to the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator within twelve hours from time of accident. Section 10

(2) When any accident which results in the death of any person or which results in such bodily injury to any person as is likely to cause his death, takes place in an establishment, a notice shall also be sent to,-



- 
- (a) District Magistrate or Sub-Divisional Magistrate;
  - (b) the Officer-in-charge of the Police Station;
  - (c) the family of the injured or deceased person; and
  - (d) to the authorities of concerned State in case of inter-state migrant worker.

(3) A notice given as required under sub-rule (1) shall be confirmed by the employer of the establishment to the authorities mentioned in sub-rule (1) within twenty-four hours of the accident by sending them a report in Form-11 in the case of an accident causing death or bodily injury to any person.

(4) When any accident takes place in an establishment and it causes such bodily injury to any person as prevents the person injured from working for a period of forty-eight hours or more immediately following the accident the employer of the establishment shall send a report thereof to the Inspector-cum-Facilitator and Chief Inspector-cum-Facilitator in Form-11 within twenty-four hours after the expiry of the forty-eight hours from the time of the accident:

Provided that if in the case of an accident, death occurs of any person injured by such accident after the notices and reports referred to in the foregoing sub-rule have been sent, the employer of the establishment shall forthwith send an intimation thereof by telephone, special messenger or email to the authorities and persons mentioned in sub-rules (1) and (2):

Provided further that, if the period of disability from working for forty-eight hours or more referred to in sub-rule (4) does not occur immediately following the accident but later on occurs in more than one spell, the report shall be sent to the Inspector-cum-Facilitator and Chief Inspector-Cum-Facilitator in Form-11 within twenty-four hours immediately following the hour when the actual total period of disability from working resulting from the accident becomes forty-eight hours.

Section 11

**15. Notice of Dangerous Occurrence.-** (1) When any dangerous occurrence specified in the Schedule given under this rule takes place in an establishment, the employer of the establishment shall forthwith send a notice thereof by telephone, special messenger or email within twelve hours to,-

- (a) Sub-Divisional Magistrate;
- (b) Chief Inspector-cum-Facilitator;

- 
- (c) the Officer-in-charge of the Police Station; and
  - (d) Inspector-Cum-Facilitator
- (2) Any notice given as required under sub-rule (1) shall be confirmed by the employer of the establishment to the authorities mentioned in sub-rule (1) within twenty-four hours of the dangerous occurrence by sending them a written report in Form-12.

### **SCHEDULE**

The following class of occurrence shall be dangerous occurrence within the meaning of this rule :-

- (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;

Section 12

**16. Notice of Disease.-** (1) A notice in Form-13 shall be sent forthwith to the Inspector-cum-Facilitator, Chief Inspector-cum-Facilitator and to the qualified medical practitioner by the employer of an establishment in which disease specified in the Third Schedule appended to the Code occurs.

(2) The qualified medical practitioner shall send a report in writing to the office of the Chief Inspector-cum-Facilitator in Form-13 through E-mail within forty eight hours from the time the disease specified in the Third Schedule appended to the Code came to his knowledge.

Section 13 (d)

**17. Manner of making report by employee.-** The employee shall submit the report in Form-14 to the Safety Officer or Employer with regard to unsafe or unhealthy situation.

Section 14 (3)

**18. Manner of sending report of action taken.-** An Employer or Employee of an establishment shall submit the report in Form-15 to the Inspector-cum-Facilitator within twenty-four hours from the time remedial action is taken with regard to the imminent danger.

#### CHAPTER-IV

#### OCCUPATIONAL SAFETY AND HEALTH

Section 17 (2)

**19. Constitution of the Punjab Occupational Safety and Health Advisory Board.-** (1) The Punjab Occupational Safety and Health Advisory Board

(hereinafter referred to in these rules as the Board) shall consist of the following, namely:-

- (i) Administrative Secretary, Department of Labour, Punjab .....Chairperson (ex-officio)
  - (ii) Administrative Secretary, Department of Industries, Punjab ... member (ex-officio)
  - (iii) Administrative Secretary, Department of Local Government, Punjab... member (ex-officio)
  - (iv) Administrative Secretary, Department of Housing and Urban Development, Punjab... member (ex-officio)
  - (v) Administrative Secretary, Department of PWD (B&R), Punjab... member (ex-officio)
  - (vi) Administrative Secretary, Department of Water Resources, Punjab... member (ex-officio)
  - (vii) Administrative Secretary, Department of Water Supply & Sanitation, Punjab ... member (ex-officio)
  - (viii) Regional Director, Employees' State Insurance Corporation .... member (ex-officio)
  - (ix) Director, Health Services, Punjab..... member (ex-officio)
  - (x) Chairman, Punjab Pollution Control Board.....member (ex-officio)
  - (xi) Three representatives of employers to be nominated by the State Government..... members
  - (xii) Three representatives of employees to be nominated by State Government..... member
  - (xiii) Three eminent persons connected with the field of occupational safety and health, or representatives from reputed research institutions or similar other discipline to be nominated by the State Government ...members
  - (xiv) Labour Commissioner-cum-Director of Factories, Punjab .....member secretary
- (2) The terms of office of the members referred to in clauses (xi), (xii), and (xiii) shall be of three years.

- Section 17 (2) **20. Notice of meeting and the agenda.-** Notice intimating the date, time and venue of every meeting together with agenda, to be discussed at the meeting, shall be sent by registered post, email or by special messenger, to each member fifteen days before the meeting:
- Provided that when the Chairperson calls a meeting for the consideration of any matter, which in his opinion is urgent, notice of not less than three days shall be deemed sufficient.
- Section 17 (2) **21. Absence from the State.-** If any member leaves the State for a period of not less than six months without intimation to the Chairperson, he shall be deemed to have resigned from the Board.
- Section 17 (2) **22. Transaction of business.-** Every question considered at a meeting of the Board shall be decided by a majority of the votes of the members present and voting and in the event of equal votes, the Chairperson shall have and exercise a casting vote.
- Section 17 (2) **23. Quorum.-** No business shall be transacted at any meeting of the Board, unless at least ten members are present.
- Section 17 (2) **24. Minutes of the meeting.-** The minutes of every meeting, duly approved by the Chairperson, shall be recorded by the Member- Secretary of the Board which shall be a permanent record.
- Section 17 (2) **25. Fees and allowances.-** Every non-official member of the Board shall be paid the fees and allowance for attending a meeting of the Board at such rates as may be fixed by the State Government from time to time.
- Section 17 (2) **26. Resignation.-** A member of the Board, not being an ex-officio member, may resign his office by a letter in writing addressed to the State Government and the Office 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.
- Section 17 (2) **27. Cessation of Membership.-** If any member of the Board, not being an *ex-officio* member, fails to attend three consecutive meetings of the Board, without obtaining the leave of the Chairperson for such absence, he shall cease to be member of the Board:

Provided that the State Government may, if it is satisfied that such

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

**28. Disqualification for membership.-** (1) A person shall be disqualified for being reappointed, and for being a member of the Board,-

- (a) if he is of unsound mind and stands so declared by a competent court; or
- (b) if he is an undischarged insolvent; or
- (c) if he has been or is convicted of an offence which, in the opinion of the State Government, involves moral turpitude.

(2) If a question arises as to whether a disqualification has been incurred under sub-rule (1) or not, the State Government shall decide the same.

**29. Removal from Membership.-** The State Government may remove from office any member of the Board, if in its opinion such a member has ceased to represent the interest which he purports to represent in the Board:

Provided that no such member shall be removed, unless a reasonable opportunity is given to him for making any representation against the proposed action.

**30. Manner of filling vacancies.-** When a vacancy occurs or is likely to occur in the membership of the Board, the Member Secretary of the Board shall submit a report to the State Government and on receipt of such report, the State Government may, by notification, nominate a person to fill the vacancy and the person so nominated shall hold office for the remainder of the term of office of the member in whose place he is nominated.

**31 Collection and extraction of safety and health statistics.-** (1) Every employer shall submit the details of occupational safety and health statistics to the State Government as well as to the office of Director General, Labour Bureau electronically on portal in such form and manner as may be prescribed by the Central Government from time to time.

(2) Every inter-State migrant worker, whether employed or self-employed in the State of Punjab, shall get himself registered on portal.

**32. Safety Committee.-** (1) In every establishment,-

- 
- (a) wherein one hundred and fifty or more employees are ordinarily employed; or
  - (b) which handles an hazardous substance as defined in clause (zb) of section 2 and employs fifty or more employees; or
  - (c) which carries on any hazardous process as defined in clause (za) of section 2 or carries operation declared to be dangerous under the Code and employs fifty or more employees, there shall be a Safety Committee to be set up by the employer.
- (2) The representatives for the management of Safety Committee shall include;-
- (a) a senior official, who by virtue of his position in the establishment can contribute effectively to the functioning of the Committee. Such a senior official shall be the Chairman of the Safety Committee;
  - (b) a Safety Officer or Medical Officer, wherever available and the Safety Officer in such a case shall be the Secretary of the Safety Committee; and
  - (c) a representative each from the human resource, production, maintenance and purchase departments.
- (3) The employees representatives of this Committee shall be elected by the employees.
- (4) The tenure of the Committee shall be two years.
- (5) The Safety Committee shall meet as often as necessary but at least once in every quarter. The minutes of the meeting shall be recorded and produced to the Inspector-cum-Facilitator on demand.
- (6) The Safety Committee shall have the right to, -
- (a) ask for necessary information concerning health and safety of the employees; and
  - (b) seek any relevant information concerning health and safety of the employees.
- (7) The functions and duties of the Safety Committee shall include,-
- (a) assisting and co-operating with the management in achieving the

- 
- aims and objects outlined in the Health and Safety Policy of the establishment;
- (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 employees;
  - (d) undertaking educational, training and promotional activities;
  - (e) deliberating on reports of safety environmental and occupational health surveys, emergency plans, safety audits, risk assessment and implementation of the recommendations made in the reports;
  - (f) carrying out health and safety surveys and identifying causes of accidents;
  - (g) looking into any complaint made on the likelihood of an imminent danger to the safety and health of the employees and suggest corrective measures; and
  - (h) reviewing the implementation of the recommendations made by it.
- (8) Where owing to the size of the establishment, or any other reason, the functions referred to in sub-rule (7) cannot be effectively carried out by the Safety Committee, it may constitute such sub-committees, as may be required to assist it.

**33. Safety Officer.-** (1) There shall be one Safety Officer,-

Section 22 (2)

- (a) for factories employing between five hundred and one thousand workers:

Provided that for the purposes of this clause, there shall be an additional Safety Officer for every five hundred workers or a fraction thereof;  
or

- (b) for factories carrying on hazardous process or establishments carrying on building or other construction works, employing between two hundred fifty workers and five hundred workers.

Provided that for the purposes of this clause, there shall be an additional Safety Officer for every two hundred fifty workers or a fraction thereof.



(2) A person shall not be eligible for appointment as a Safety Officer, unless he,-

- (i) possesses a degree of a recognised university or institution in any branch of Engineering or Technology and has practical experience of working in a factory or building or other construction work in a supervisory capacity for a period of not less than two years or possesses a degree in Physics or Chemistry from a recognised university or institution and has practical experience of working in a factory or building or other construction work in a supervisory capacity for a period of not less than five years, or possesses a recognised diploma in any branch of engineering or technology and has practical experience of working in a factory or building or other construction work in a supervisory capacity for a period of not less than five years;
- (ii) possesses a diploma or degree in industrial safety or occupational safety and health recognised by All India Council for Technical Education or University Grants Commission; and
- (iii) has adequate knowledge of language spoken by majority of the workers in the region in which the factory or building or other construction work where he is to be appointed, is situated.

(3) Notwithstanding anything contained in sub-rule (2), any person who possesses a degree or diploma in Engineering or Technology of a recognised university or institution and has an experience of not less than ten years in a department of the Central Government or State Government which dealt with the administration of the Factories Act, 1948 or the Indian Dock Labourers Act, 1934 or the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 or deals with the Code Occupational Health, Safety and Working Conditions Code 2020, shall also be eligible for appointment as a Safety Officer:

Provided that in the case of a person who has been working as a Safety Officer in an establishment for a period of not less than three years on the date of commencement of these rules, the Chief Inspector-cum-Facilitator may, subject to conditions as he may specify, relax all or any of the above said qualifications.

(4) The occupier of the factory or employer of building or other construction

establishment, as the case may be, shall inform the Chief Inspector-cum-Facilitator and the Inspector-cum-Facilitator of the area about appointment of the Safety Officer or Chief Safety Officer within seven days from such appointment.

(5) The Chief Inspector-cum-Facilitator may endorse such appointment after satisfying himself.

(6) Where more than one Safety Officers are appointed in an establishment, one of them shall be designated as the Chief Safety Officer and shall be the overall in charge of the Safety functions as envisaged in sub-rule (10).

(7) The Chief Safety Officer or the Safety Officer in the case of an establishment where only one Safety Officer is required to be appointed, shall be given the status of a senior executive and shall work directly under the control of the employer.

(8) The scales of pay and allowances to be granted to the Safety Officers, including the Chief Safety Officer, and the other conditions of their service shall be the same as those of the officers of corresponding status in the establishment.

(9) Against the order of dismissal or discharge, a Safety officer shall have the right of appeal to the State Government.

(10) Following shall be the duties of a Safety Officer, namely:-

- (i) to advise and assist the management of the establishment in the fulfilment of its obligations, statutory or otherwise, concerning prevention of personal injuries and maintenance of a safe working environment;
- (ii) to advise the concerned departments in planning and organising measures necessary for the effective control of person injuries;
- (iii) to advise on safety aspects in all job studies, and to carry out detailed job safety studies of selected jobs;
- (iv) to check and evaluate the effectiveness of the action taken or proposed to be taken to prevent personal injuries;
- (v) to advise the purchase and stores departments in ensuring high quality and availability of personal protective equipment;
- (vi) to advise on matters relating to plant safety inspections;

- (vii) to carry out plant safety inspections in order to observe the physical conditions of work and the work practices and procedures followed by workers and to render advice on measures to be adopted for removing the unsafe physical conditions and preventing unsafe actions by workers;
  - (viii) to tender advice on matters relating to reporting and investigation of industrial accidents and occupational diseases;
  - (ix) to investigate accidents;
  - (x) to investigate the cases of occupational diseases contracted and dangerous occurrences reportable under the Code ;
  - (xi) to advise on the maintenance of such records as are necessary relating to accidents, dangerous occurrences and occupational diseases;
  - (xii) to promote setting up of safety committees and act as advisor and convener to such committees;
  - (xiii) to organise in association with the concerned departments of the establishment 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
  - (xiv) to design and conduct either independently or in collaboration with the training department of the establishment, suitable training and educational programmes for the prevention of personal injuries.
- (11) An employer of the establishment shall provide each Safety Officer with such facilities, equipment and information as are necessary to enable him to discharge his duties effectively.
- (12) No Safety Officer shall be required or permitted to do any work which is inconsistent with or detrimental to the performance of the duties specified in sub-rule (10).

## CHAPTER-V

### HOURS OF WORK AND ANNUAL LEAVE WITH WAGES

Section 26 (2)

- 34. Conditions relating to weekly holidays.-** (1) No worker shall be required or allowed to work in an establishment on the first day of the week (hereinafter referred to as the said day), unless-
- (a) he has or will have a holiday for a whole day on one of the three days immediately before or after the said day; and

- (b) the employer of the establishment has, before the said day or the substituted day under clause (a), whichever is earlier,-
- (i) delivered a notice at the office of the Inspector-cum-Facilitator of his intention to require the worker to work on the said day and of the day which is to be substituted, and
- (ii) displayed a notice to that effect in the establishment:

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

(2) Notices given under sub-rule (1) may be cancelled by a notice delivered at the office of the Inspector-cum-Facilitator and a notice displayed in the establishment not later than the day before the said day or the holiday to be cancelled, whichever is earlier.

(3) Where, in accordance with the provisions of sub-rule (1), any worker works on the said day and has had a holiday on one of the three days immediately before it, that said day shall, for the purpose of calculating his weekly hours of work, be included in the preceding week.

**35. Conditions relating to compensatory holidays.-** (1) Where, a worker is deprived of any of the weekly holidays for which provision is made under sub-rule (1) of rule 34, he shall be allowed, within the month in which the holidays were due to him or within the two months immediately following that month, compensatory holidays of equal number of the holidays so lost. Section 26 (2)

(2) Except in the case of workers 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 shall be so spaced that not more than two holidays are given in one week.

(3) The employer 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 work prescribed under section 31 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.

(4) 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.

(5) The employer shall maintain a Register in Form-16.

(6) The register maintained under sub-rule (5) shall be preserved for a period of three years after the last entry in it and shall be produced before the Inspector-cum-Facilitator on demand.

## Section 27

**36. Extra wages for overtime.-** (1) In pursuance of section 27, 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 fifteen to thirty minutes shall be counted as thirty minutes and in case of more than thirty 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 may exceed twelve hours in any one day under the following works and circumstances in all establishments, except those covered as factories, 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 a 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 public importance.

**37. Total number of hours of overtime.-** The total number of hours for overtime shall be subject to the following conditions, namely:—

- (i) the total number of hours of work in any day shall not exceed twelve;
- (ii) the spread over, inclusive of intervals for rest, shall not exceed thirteen hours in any one day;
- (iii) the total number of hours of work in any week, including overtime, shall not exceed sixty; and
- (iv) no worker shall be allowed to work overtime for more than seven days at a stretch and the total number of hours of overtime work in any quarter shall not exceed one hundred and twenty-five hours.

**38. Notice of periods of work.-** (1) There shall be displayed and correctly maintained in every establishment, a notice of periods of work for adults, showing clearly for every day the periods during which workers may be required to work in Form-17.

- (2) The periods shown in the notice required by sub-rule (1) shall be fixed beforehand and copy shall be submitted to the Inspector-cum-Facilitator.
- (3) Where all the workers in an establishment are required to work during the same periods, the employer of the establishment shall fix those periods for such workers generally.
- (4) Where all the workers in an establishment are not required to work during the same periods, the employer of the establishment shall classify them into groups according to the nature of their work indicating the number of workers in each group.

- (5) For each group which is not required to work on a system of shifts, the employer of the establishment shall fix the periods during which the group may be required to work.
- (6) Where any group is required to work on a system of shifts and the relays are not to be subject to predetermined periodical changes of shifts, the employer of an establishment shall fix the periods during which each relay of the group may be required to work.
- (7) Where any group is to work on a system of shifts and the relays are to be subject to predetermined periodical changes of shifts, the employer of an establishment shall draw up a scheme of shifts where under the periods during which any relay of the group may be required to work and the relay which will be working at any time of the day shall be known for any day.
- (8) In the case of an establishment beginning work after the commencement of the Code, a copy of the notice referred to in sub-rule (1) shall be sent to the Inspector-cum-Facilitator before the day on which work is to begin in an establishment.
- (9) Any proposed change in the system of work in any establishment which will necessitate a change in the notice referred to in sub-rule (1) shall be notified to the Inspector-cum-Facilitator in duplicate before the change is made, and except with the previous sanction of the Inspector-cum-Facilitator, no such change shall be made until one week has elapsed since the last change.

## CHAPTER-VI

### REGISTERS, RECORDS, AND RETURNS

- Section 33      **39. Register of adult workers.-** In every establishment a register of adult workers in Form-18 shall be maintained.
- Section 33      **40. Workers Register of adolescent workers.-** In every establishment a register of adolescent workers in Form-19 shall be maintained.
- Section 33      **41. Attendance record.- (1) Muster-roll:-**
- (a) The employer of every establishment shall maintain a muster-roll of all the workers employed in the establishment in Form-20 showing,-
    - (i) the name of each worker;

- (ii) the nature of his work; and
- (iii) the daily attendance of the worker.
- (b) In case of establishments employing more than hundred workers, attendance shall be marked within one hour and in other cases within half an hour of the start of the duty.

**(2) Attendance Card**

- (a) No worker shall be required or allowed to work unless he has in his possession attendance card with up to date entries, in Form-21 to be supplied by the employer. The attendance card shall always remain with the worker. The employer or his authorised person shall demand it only to make relevant entries therein, whenever necessary.
- (b) If a worker loses his attendance card, the employer shall provide him/her with another copy duly completed from his record on payment of twenty-five rupees within two days of the payment.

**42. Register of accidents and dangerous occurrences.-** The employer of every establishment shall maintain a register of accidents and dangerous occurrences in Form-22. Section 33

**43. Register of leave with wages.-** (1) The employer shall maintain a register of leave with wages in Form-23 and the name of each worker shall be entered in this register during the month, in which the worker is taken in employment. Section 33

- (2) The register of leave with wages shall be preserved for a period of three years after the last entry in it and shall be produced before the Inspector-cum-Facilitator on demand.

**44. Register of Overtime.-** (1) The employer of every establishment, in which workers are exempted by order or rule, shall keep a register in Form-24 showing the normal piece-work rate of pay, or the rate of pay per hour, of all exempted workers. This register shall always be available for inspection. Section 33

- (2) Period of overtime work shall also be entered in overtime slips which shall be prepared in duplicate and an overtime slip duly signed by the employer or by a person duly authorised by him shall be given to the worker immediately after completion of the overtime work:



Provided that if the Chief Inspector-cum-Facilitator is satisfied that because of the nature of work carried out in the establishment, it is not possible to issue daily slips to the workers he may permit issue of weekly slips to the workers.

- Section 33 **45. Register of wages.-** The employer shall maintain a register of wages in respect of employees in such form, as may be prescribed by the rules made by the appropriate Government under the Code on Wages, 2019 (Central Act No. 29 of 2019).
- Section 33 (b) **46. Names of authorities.-** There shall be a notice displayed at conspicuous place near main entrance of the establishment carrying the names and address of authorities under the Code in Form -25.
- Section 33 (b) **47. Display of summaries.-** The employer of every establishment shall display a notice carrying summaries of the Code and rules made thereunder in Form -26.
- Section 33 (b) **48. Display of name and address of establishment.-** (1) A board containing the name and address of the establishment shall be displayed outside the establishment near the main entrance.
- (2) Two third of the upper area of the board to be displayed as per sub-rule 1 shall be in Punjabi language and the rest of the area shall be in any other language recognized by the Constitution of India.
- Section 33 (c) **49. Wage Slip.-** Every employer shall issue wage slips, electronically or otherwise, to the employees in such form, as may be prescribed, by the rules made by the appropriate Government under the Code on Wages, 2019 (Central Act No. 29 of 2019) on or before the payment of wages.
- Section 33 (d) **50. Annual return.-** Every employer of an establishment shall send annually, a return relating to such establishment in Form-27 on the portal not later than 1st February following the end of each calendar year with a copy to the Director General, Labour Bureau, electronically.

## CHAPTER VII

### INSPECTORS AND OTHER AUTHORITIES

- Section 34 (5) **51. Qualifications and experience of Chief Inspector-cum-Facilitator.-** The State Government may appointment any person as the Chief Inspector-cum-Facilitator who,-

(1) Possesses Bachelor's degree in Engineering in any discipline with at least ten years experience as an Inspector under the Factories Act, 1948 or Inspector-cum-Facilitator under the Code; or

(2) is an officer of Indian Administrative Service in the Punjab cadre.

**52. Powers of Inspector-cum-Facilitator for plantation.-** The Inspector-cum-Facilitator may ask for any type of record and may record statement of any person in relation to the establishment or premises carrying plantation as per clause (zx) of section 2. Section 35 (1)  
(iv)

**53. Manner of taking samples of any article or substance found in any premises and work environment.-** (1) The Chief Inspector-cum-Facilitator shall recognise any laboratory accredited with the National Accreditation Board for Testing and Calibration Laboratories for taking samples and giving analysis report required under the Code. Section 35 (1)  
(x)

(2) A notice on employer of the establishment from where or in vicinity of which sample is to be taken shall be served in Form-28 by the Inspector-Cum-Facilitator.

(3) The recognised laboratory on the order issued by the Inspector-cum-Facilitator in writing or on request from the employer shall take samples.

(4) Sample shall be taken in the presence of employer himself or any person authorised by him.

(5) Samples shall be collected in two parts and shall be placed in containers which shall be sealed, marked and signed by the person collecting sample as well as the employer or any person authorized by him.

(6) One part of sample collected and placed, shall be handed over to the employer or his authorised person present and the other part one shall be sent forthwith to the laboratory for analysis.

(7) The report of the laboratory shall be recorded in Form-29 in triplicate and signed by the Analyst of the laboratory and sent to the Inspector-cum-Facilitator from whom the order for sampling is received within seven days from the date of completion of analysis of sample.

(8) The expenditure of the sampling and analysis shall be borne by the employer of the establishment.

(9) On receipt of the report from the laboratory, the Inspector-cum-Facilitator shall send one copy of the same to the employer of establishment from whom the sample was taken for analysis, the second copy shall be retained by him for his record and the third copy shall be sent to the Chief Inspector-cum-Facilitator alongwith recommendation, for further action.

Section 35 (ix)

**54. Other powers of Inspector-cum-Facilitator.-** An Inspector-cum-Facilitator shall, for the purposes of the execution of the powers assigned to him under the Code within the local limits of his jurisdiction, have power to do all or any of the following things, namely:-

- (a) to photograph any person, 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 employees employed in an establishment;
- (b) in the case of an Inspector-cum-Facilitator who is a duly qualified medical practitioner, to carry out such medical examinations, as may be necessary for the purposes of his duties under the Code.
- (c) to prosecute, conduct or defend before a Court any complaint or other proceeding arising under the Code or in discharge of his duties as an Inspector-cum-Facilitator.
- (d) to issue such orders to other departments or agencies to comply with the orders issued under sections 3, 38 or any other section as specified.

Section 37

**55. Qualifications and experience of experts to be empanelled.-** The qualifications, experience and eligibility for empanelment as an expert shall be are as follows:-

- (i) Bachelor`s Degree in engineering in any discipline;
- (ii) experience of at least ten years in the field of occupational safety and health;
- (iii) diploma or degree in industrial safety or occupational safety and health recognised by All India Council for Technical Education or University Grants Commission;
- (iv) medical fitness declared by the Civil Surgeon; and
- (v) age not more than sixty two years.

**56. Manner of providing alternative employment.-** Every occupier or employers as the case may be, shall provide employment to the affected workers in other areas of the establishment: Section 38

Provided that the wages of the affected person shall not be reduced due to alternate employment.

Provided further that if the whole or a part of establishment working as factory or building and other construction site is fully closed by an order, then it shall be the duty of the occupier or employer, as the case may be, to pay wages to the affected workers as per the Code of Wages, 2019 (Central Act No. 29 of 2019) for the number of days for which the establishment remained closed.

**57. Qualifications for the appointment of medical practitioner as medical officer in relation to establishment.-** Following shall be the qualifications for the appointment of medical practitioner as medical officer in relation to factory, mines, plantation, motor transport undertakings and in any other establishments namely:- Section 42 (1)

- (i) Should possesses any recognised medical qualification as defined in the National Medical Commission Act, 2019, (Central Act No. 30 of 2019) and should be enrolled on the National Register as defined in clause (m) of section 2 or on the State Register as defined in clause (v) of section 2 of the aforesaid Act; and
- (ii) in respect of factory carrying hazardous process or dangerous operations, in addition to the qualifications mentioned in clause (i), a person should possess a certificate of Training in Industrial Health of minimum three months duration recognised by the State Government or should possess a diploma in Industrial Health or equivalent.

**58. Dangerous occupations or processes for medical examination.-** Following shall be the dangerous occupations or processes for the purposes of medical examination and certification, namely:- Section 42 (2)  
(a)

- (i) operations declared dangerous under section 82 of the Code;
- (ii) factories carrying hazardous process as per Schedule 1 of the Code;
- (iii) treatment of Biomedical waste;

- 
- (iv) sewerage treatment;
  - (v) solid waste management;
  - (vi) marble cutting;
  - (vii) ready mix concrete;
  - (viii) hot mix concrete;
  - (ix) working at height;
  - (x) operation of crane or heavy duty machinery; or
  - (xi) such other occupation or process as may be notified by the State Government from time to time, to be dangerous.

Section 42 (2)  
(c)

**59. Medical Examination and certification of adolescent.-** (1) A medical officer shall, on the application of any adolescent or his parent or guardian accompanied by a document signed by the employer of an establishment that such person will be employed therein if certified to be fit for work in an establishment, or on the application of the employer of the establishment in which any adolescent wishes to work, examine such person and ascertain his fitness for work in an establishment.

(2) The medical officer, after examination, may grant to such adolescent, in Form-30, or may renew, a certificate of fitness to work in an establishment as an adolescent, if he is satisfied that the adolescent has completed his fourteenth year, has attained the prescribed physical standards and is fit for such work;

Provided that unless the medical officer has personal knowledge of the place where the adolescent proposes to work and of the manufacturing process in which he will be employed, he shall not grant or renew a certificate under this sub-rule until he has examined such place.

(3) A certificate of fitness granted or renewed under sub-rule (2),

- (a) shall be valid only for a period of twelve months from the date thereof;
- (b) may be made subject to conditions with regard to the nature of the work in which adolescent may be employed, or requiring re-examination of the adolescent before the expiry of the period of twelve months.

(4) A medical officer shall revoke any certificate granted or renewed under sub-rule (2), if in his opinion the holder of it is no longer fit to work in the capacity stated therein in an establishment.

- (5) Where a certificate under this rule with reference to any adolescent is granted or renewed subject to such conditions as are referred to in sub-rule (3), the adolescent shall not be required or allowed to work in any establishment, except in accordance with those conditions.
- (6) A fee of rupees one thousand shall be payable for a certificate under this rule and must be paid by the employer and shall not be recoverable from the adolescent, his parents or guardian.
- (7) Fee required under sub-rule (6) shall be paid on portal and shall be credited to the treasury in the Head as may be specified by the State Government from time to time.
- (8) Medical Officer shall maintain record of examinations under this rule in Form-31.

## CHAPTER VIII

### SPECIAL PROVISIONS RELATING TO EMPLOYMENT OF WOMEN

**60. Conditions relating to safety, holidays and working hours or any other condition to be observed by the employer.-** Women employees with their consent may be employed before 6:00 AM and beyond 7:00 PM subject to the following conditions, namely:- Section 43

- (a) it shall be the duty of the employer to prevent or deter the commission of acts of sexual harassment and to provide the procedures for the resolution, statement or prosecution of acts of sexual harassment by taking all steps required;
- (b) the employer shall take appropriate steps to prevent sexual harassment;
- (c) in case of any criminal case, the employer shall initiate appropriate action in accordance with the penal law without delay and also ensure that victims or witnesses are not victimised or discriminated while dealing with the complaints of sexual harassment and wherever necessary, at the request of the affected worker, shift or transfer the perpetrator, if circumstances warrant. The employer shall take appropriate disciplinary action if such conduct amounts to misconduct in employment;
- (d) the employer shall maintain a complaint mechanism in the establishment

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itself and the said mechanism shall ensure time-bound treatment of complaints. Such mechanism should be at any rate to provide, when necessary, a Complaint Committee, a special counsellor or other support services including the maintenance of confidentiality;

(e) such Complaint Committee shall be headed by a woman and not less than half of its members shall be women, besides a non-governmental organisation's representation in the Committee. Such person shall be familiar with the issues of sexual harassment;

(f) the women employees shall be allowed to raise issues of sexual harassment in the employees' meeting and other appropriate forum;

(g) the women employees shall be made aware of their rights in particular by prominently notifying the guidelines on the subject;

(h) wherever there is a harassment at the instance of a third party, either by an act or omission, the employer and person in charge of the establishment shall take all steps necessary and reasonable to assist the affected persons in terms of support and preventive action;

(i) the employer shall provide proper lighting not only inside the establishment, but also surroundings of the establishment and to all places where the women employees may move out of necessity in the course of such shift;

(j) the employer shall see that the women employees are employed in a batch not less than ten and the total of the women employees employed in a night shift shall not be less than 2/3rd of the total strength;

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

(l) sufficient number of work sheds shall be provided for the female employees to arrive in advance and also leave after the working hours;

(m) separate canteen facility shall be provided for the female employees; and

(n) separate transportation facility shall be provided wherever transportation is provided by the employer or the occupier of the establishment;

(o) apart from the facilities, which are permissible under the Code, an additional holiday shall be permitted for the women employees during their menstruation period, which shall be a paid holiday for the night shifts;

- (p) the establishment shall provide appropriate medical facilities and also make available at any time of urgency by providing necessary telephone connections and where more than hundred women employees are employed in a shift, a separate vehicle shall be kept ready to meet the emergent situation such as hospitalisation, whenever there is a case of injury or incidental acts of harassment etc;
- (q) wherever the establishment provides boarding and lodging arrangements for the women employees, the same shall be kept exclusively for the women under the control of women wardens or supervisors;
- (r) during night shift not less than 1/3rd-of strength of the supervisors or shift-in-charge or foreman or other supervisory staff shall be women;
- (s) there shall be not less than twelve consecutive hours of rest or gap between the last shifts and the night shift whenever a woman employee is changed from day shift to night shift and also from night shift to day shift;
- (t) in other respects, the provisions of the Code and the rules of other statutory provisions with respect to the hours of work and the payment of equal remuneration and all other labour legislations shall be followed by the employer;
- (u) the employer shall appoint not less than two female wardens per night shift who shall go on round and work as Special Welfare Assistants;
- (v) the women employees who work in night shifts and regular shifts shall have a monthly meeting through their representatives with the employer once in eight weeks as grievance day and the employer shall try to comply with all just and reasonable grievances;
- (w) the employer shall be at liberty to employ women employees as a whole or in part during night shift, provided that the above directions are complied with;
- (x) the employer shall send a fortnightly report to the Inspector-cum-Facilitator under the Code about the details of women employees engaged during night shifts and shall also send express report whenever there is some untoward incident to the Inspector-cum-Facilitator and local Police station as well; and
- (y) the area Inspector-cum-Facilitator shall strictly enforce the conditions and make it a point to take note of the non-compliance in their inspection from time to time.



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**CHAPTER-IX****SPECIAL PROVISIONS FOR CONTRACT LABOUR AND  
INTER-STATE MIGRANTS****PART-I**

Section 47 (3)

**61. Conditions in respect of contract labour.-** The licence issued under sub section (1) of section 47 shall be subject to the following conditions, namely:-

- (i) The licence shall be non-transferable;
- (ii) except as provided in these rules, the fees paid for the grant, or as the case may be, for renewal of the licence shall be non-refundable;
- (iii) the rates of wages payable to the workers by the contractor shall as per the Code on Wages, 2019 (Central Act No. 29 of 2019) and rules made there under;
- (iv) in case where the worker employed by the contractor performs the same or similar kind of works as the worker directly employed by the employer of the establishment, the wage rates, holidays, hours of work and other conditions of service of the workers of the contractor shall be the same as applicable to the workers directly employed by the employer of the establishment on the same or similar kind of work;
- (v) in every establishment where the number of workers are ordinarily employed as contract labour is fifty, there shall be provided the facility of crèche in accordance with rules made under sub-section (3) of section 24;
- (vi) the licensee shall notify any change in the number of workers or the conditions of work to the designated authority;
- (vii) a copy of the licence shall be displayed prominently at the premises where the contract work is being carried on; and
- (viii) the contractor shall be liable to comply with the relevant provisions of the Code.

Section 48 (1)

**62. Issue of licence for contractor.-** (1) Application for issuing license shall be made in Form-32 to the designated authority on Portal.

(2) Every application referred to in sub-rule (1) shall also be accompanied by the security and fees at the rates specified in the Schedule given below:-

SCHEDULE		
Number of workers to be engaged/employed by contractor	Fee for license deposited	Security to be
Up to 100	5000	50000
101-150	10000	100000
151-200	15000	150000
201-250	20000	200000
251-500	25000	250000
501-750	30000	300000
751-1000	40000	400000
1001-1500	50000	500000
1501-2000	60000	600000
Above 2000	75000	750000

(3) Payments as required under sub-rule (2) shall be paid through portal which shall be credited to the treasury in the head of account as may be specified by the State Government from time to time.

(4) After receiving application on portal, the designated authority shall issue license in Form-33 within a period of forty five days specifying the conditions laid down in rule 61.

**63. Renewal of license for contractor.-** (1) Every contractor to whom a license is issued under rule 62 shall make an application for renewal to the designated authority on portal in the Form-32 thirty days before the expiry of license. Section 48 (3)

(2) The designated authority shall renew the license in Form-33 within thirty days from the date of receipt of application.

**64. Amendment of license for contractor.-** (1) Every contractor to whom license is issued under rule 62 or 63 shall make an application for any amendment to the designated authority on portal in the Form-34 before any change or within three days from such change. Section 48 (3)

(2) The fee for the amendment of a licence shall be rupees five hundred rupees plus the amount of difference of security and fee required as per the schedule under Rule 62.

(3) After receiving application on portal, the designated authority shall amend and issue the license to contractor in Form-33 within a period of three days.

Section 48

**65. Late fee for license.-** If the application for renewal or amendment is not received within the time specified in sub-rule (1) of rules 63 and 64, a fee of twenty five per cent in excess of the fee ordinarily payable for the licence shall be payable on Portal.

Section 48 (4)

**66. Responsibility of contractor.-** (1) A contractor shall be responsible for payment of wages to each worker employed by him as contract labour and such wages shall be paid before the expiry of such period as prescribed under rules made by the appropriate Government under the Code on Wages, 2019 (Central Act No. 29 of 2019).

(2) Every employer shall nominate a representative duly authorised by him to be present at the time of disbursement of wages by the contractor and it shall be the duty of such representative to certify the amounts paid as wages.

(3) It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the authorised representative of the employer.

(4) In case the contractor fails to make payment of wages within the period specified in the Code on Wages, 2019 or makes short payment, then the employer shall be liable to make payment of wages in full or the unpaid balance due, as the case may be, to the contract labour employed by the contractor and recover the amount so paid from the contractor either by deduction from any amount payable to the contractor under any contract or as a debt payable by the contractor.

(5) It shall be the duty of the contractor to look after the welfare of the worker.

(6) It shall be the duty of the contractor to comply with the provisions of the Code.

Section 48

**67. Register of contractors.-** A register of contractors shall be maintained by the designated authority in Form-35 to whom license is issued under rules 62, 63 and 64.

Section 50 (1)

**68. Intimation of work.-** Every contractor, fifteen days before the commencement of work, shall inform electronically in Form-36 to the Chief Inspector-cum-Facilitator, the Designated Authority and the Inspector-cum-

Facilitator of the area under which establishment is situated from which contractor got work-order.

**69. Manner of suspending or cancelling the Licence of contractor.-** Section 50 (2)

Whenever it comes to the knowledge of the designated authority that any contractor has not given intimation as required under sub-section (1) of section 50, it may start the proceeding to cancel or suspend the license within two days of such knowledge and the following procedure shall be followed for suspension or cancellation of license, namely:-

- (a) the designated authority shall issue a show cause notice to the contractor, electronically or otherwise, to explain his conduct;
- (b) the contractor shall reply to the notice given under clause (a) within twenty four hours from the time of receipt of such notice; and
- (c) The designated authority shall examine such reply within the next thirty six hours from the time of receipt of such reply and shall pass speaking orders.

**70. Refund of security.-** (1) On expiry of the period of licence the contractor may, if he does not intend to have his licence renewed, make an application to the designated authority for the refund of the security deposited by him under rule 62. Section 48 and 55 (4)

(2) The designated authority shall, if it is satisfied that there is no breach of the conditions of licence or there is no order under sub-section (4) of section 55, refund the security made to the contractor within thirty days from receipt of application under sub-rule (1).

(3) If there is any order of making payments under sub-section (4) of section 55, the amount to be paid shall be deducted from the security deposit, and balance, if any, refunded to the contractor.

(4) Record of security shall be maintained in Form-37.

**71. Period of wages for contract labour.-** It shall be the duty of every contractor to pay the wages to the contract labour as per the provisions of the Code on Wages, 2019 (Central Act No. 29 of 2019) and rules made there, under by the appropriate Government. Section 55 (1)

**72. Mode of payment of wages to contract labour.-** (1) The mode of payment of wages shall be made as per section 55 of the Code only. However, Section 55 (2)

contractor may opt for any other mode subject to the following conditions, namely:-

- (i) establishment where contract labour is employed is at a distance of not less than one kilometre from nearest bank;
- (ii) there is no automated teller machine within the radius of one kilometre of the establishment;
- (iii) there is network hassle in the area;
- (iv) When more than thirty three percent of total contract labour is not familiar with banking transactions;
  - (1) The principal employer as well the contractor shall inform the concerned Inspector-cum-Facilitator opting for a mode, other than the mode (s) specified in sub-section (2) of section 55.
  - (2) The contractor shall prepare details of payment made through any other mode and send a copy of the same to the principal employer and the concerned Inspector-cum-Facilitator.

Section 55 (4)

**73. Manner of payment of wages from security deposit.-** In case the contractor does not pay the wages to the contract labour employed by him and principal employer has made due payments to the contractor,

- (i) the Inspector-cum-Facilitator shall prepare the details of payment to be made and send the same to the designated authority to release the payments from the security deposited by the respective contractor;
- (ii) the designated authority shall transfer the amount to the Inspector-cum-Facilitator;
- (iii) the Inspector-cum-Facilitator shall disburse the amount among contract labour and furnish details to the designated authority; and
- (iv) the designated authority shall make entries in register to be maintained in Form-37.

Section 56

**74. Experience certificate to contract labour.-** The contractor shall issue an experience certificate to each person employed by adhering to the following key points, namely:-

- (i) must be on letter head of contractor;

- 
- (ii) date of issue of certificate;
  - (iii) salutation or declaration "TO WHOM SOEVER IT MAY CONCERN";
  - (iv) name of employee as per record;
  - (v) period of employment (from the date of joining to date of relieving);
  - (vi) designation or position;
  - (vii) remarks; and
  - (viii) seal and signature of contractor.

**75. Form and manner of making application.-** (1) The aggrieved party shall make an application in the Form-38 to the State Government. Section 57 (2)

(2) The State Government shall refer the matter, within seven days, to the designated authority.

(3) The designated authority shall examine the matter within fifteen days from the date of receipt.

(4) The designated authority shall submit report, within next two days, to the State Government.

(5) The State Government shall pass an order within seven days from the date of receipt of report.

## PART-II

### INTER-STATE MIGRANT WORKERS

**76. Journey allowance.-** (1) The employer shall pay to every inter-State migrant worker employed in his establishment, in a year a lump sum amount of fare for to and fro journey to his native place from the place of his employment based on the following conditions, namely:- Section 61

- (i) the minimum service of the worker entitled for journey allowance shall be one hundred and eighty days;
- (ii) the journey allowance shall be provided for minimum second class fare by train or bus; and
- (iii) The employer shall pay a lump sum amount of one hundred rupees per family member per day for the period of travel of the worker (if family is staying with him at the location of his workplace) for food during the journey.

(2) the employer shall maintain a register of journey allowance in Form-39.

Section 63

**77. Toll free help line number.-** (1) The Chief Inspector-cum-Facilitator shall establish a toll free number for inter-State migrants.

(2) A record of calls on toll free number shall be maintained in the format as may be specified by Chief Inspector-cum-Facilitator.

Section 64

**78. Manner of providing for study of inter-State migrant workers.-** The study of Inter-State Migrant workers may be conducted by any reputed institution through its research scholars with or without the funding from State Government.

### PART-III

#### AUDIO-VISUAL WORKERS

Section 66 (2)  
(a)

**79. Format of agreement.-** The agreement to be entered into between the producer and the employee of audio-visual programme as envisaged in clause (a) of sub-section (2) of section 66 shall be in Form-40.

Section 66 (3)

**80. Submission of agreement.-** The copy of agreement shall be forwarded by the producer of the audio-visual programme to the Chief Inspector-cum-Facilitator and the Inspector-cum-Facilitator concerned.

Section 66 (4)  
(vii)

**81. Dispute resolution Mechanism.-** (1) There shall be a district level dispute resolution committee in each district to resolve the dispute arising out of an agreement between the parties.

(2) The committee referred to in sub-rule (1) shall consist of the following, namely:-

- (i) Deputy Director of Factories,; Chairman
  - (ii) Assistant Labour Commissioner,; Member
  - (iii) Representative of Employee's Provident Fund Organisation,; Member
  - (iv) A social worker to be nominated by the Labour Commissioner, Punjab
  - (v) One eminent advocate to be nominated by the Labour Commissioner, Punjab
  - (vi) Labour Inspector or Labour Enforcement Officer; : Convenor
- (3) The District level committee on receiving a reference shall start conciliation within three days from the date of such receipt.

- (4) The District level committee for resolving the dispute may hold a meeting of the representatives of both parties jointly or of each party separately in the office of the Chairman.
- (5) The District level committee shall conduct the proceedings expeditiously and decide the reference within forty five days from the date of start of conciliation.
- (6) The proceedings of dispute resolution shall be maintained by the concerned Chairman.

#### **PART-IV**

#### **BEDI AND CIGAR WORKERS**

**82. License to use place or industrial premises for beedi and cigar work.** Section 74 (2)  
- (1) Any person who intends or allows to use any place or premise for beedi or cigar work shall submit an application in Form-58 on portal for the grant of license alongwith fee specified in Schedule-II under rule 149.

(2) A licence in Form-59 shall be granted by the authority designated under section 119.

**83. Plan of place or industrial premises for beedi and cigar work.** Section 74 (3)  
- The plan of place or industrial premises to be used for beedi and cigar work shall be as per the provisions of rules 86-94 of these rules.

**84. Renewal of licence for beedi and cigar work.** Section 74 (6)  
- (1) A licence granted under rule 82 shall be renewed by the authority designated under section 119.

(2) Every application for renewal of the licence shall be made on portal in Form-58, along with fees specified in sub-rule (3), for a period of one year or any further period up to five years, as the case may be, and shall be submitted in accordance with sub-section (6) of section 74.

(3) The fees for renewal of licence for one year shall be the same as for the grant thereof. In case an application for renewal has been made for a period of one year or any number of years up to five years, the renewal fees shall be number of years multiplied by the fees payable for renewal of licence for one year, as specified in Schedule II under rule-149:

Provided that if the application for renewal, compete in all respects, is not received within the time specified in sub-rule (2), the licence shall be renewed



only on payment of a additional fee of twenty-five percent of the fees ordinarily payable for the renewal of a licence for one year, for which the application has been received late.

Section 74 (6)

**85. Timeline for renewal or refusal to renew licence.-** The authority designated under section 119 shall renew or refuse to renew the license within thirty days from the date of receipt of application for renewal.

### PART-V

### FACTORIES

Section 79

**86. Submission of plans of factory.-** (1) The State Government or the Chief Inspector-cum-Facilitator may require for the purposes of the Code, submission of plans of building/structure/premises to be taken in use as a factory which was either in existence on the date of commencement of the Code or which had been constructed or extended since then.

(2) No building shall be constructed or shall be taken into use as a factory unless plans in respect of such building are approved by the Chief Inspector-cum-Facilitator.

(3) No additions or alterations or extensions in the existing factory shall be made, except those specified in the Schedule given below and unless such additions, alterations or extensions are approved by the Chief Inspector-cum-Facilitator.

### SCHEDULE

Serial No.	Type of additions or alterations or extensions
1.	Boundary Wall upto height of 4 Feet.
2.	Rooms/Cabins to be used for clerical/managerial/Pantry purposes.
3.	Security picket/ Guard Rooms
4.	Sheds for Vehicle Parking
5.	Canopies for Generator Sheds
6.	Balcony/Chajjas.
7.	Changes in Outer Gates.
8.	Rooms to be used for Residential Purposes.

(4) Application for approval of the plans shall be made in Form-41 to the

Chief Inspector-cum-Facilitator on portal along with the following documents/forms, namely:-

- (a) letter of allotment from the concerned agency which has developed the industrial area or focal point or industrial park, if the factory is situated in the industrial area or focal point or industrial park;
  - (b) letter regarding classification of land from the department of Town and Country Planning, Punjab, if the site does not fall in the industrial area or focal point or industrial park;
  - (c) particulars of rooms in Form-42;
  - (d) details of manufacturing process showing raw materials or by-products or end product along with the quantity or capacity;
  - (e) list of chemicals to be used or stored or produced along with quantity;
  - (f) details of cess paid; and
  - (g) such other document as the Chief Inspector-cum-Facilitator may require.
- (5) Every person applying under this rule shall appoint a person declared as competent person under the Code for drawing of building plans or structural drawings and for issuing the stability certificate of the building.
- (6) The applicant and the competent person shall sign the application, plans, structural drawings, specifications and the certificates as required in the relevant forms and documents, before making submission.
- (7) All dimensions in the plan shall be indicated in metric units.
- (8) Colourings of plans shall be as under:-

Serial No.	Item	Site and Building Plan (on white background)
I	Plot line	Thick Black
II	Building lines	Thin Black
III	Open space	No colour
IV	Construction to be approved	Blue filled in
V	Work proposed to be demolished	Yellow filled in

VI	Proposed construction	Brown filled in
VII	Drainage & sewerage work	Red dotted
VIII	Water supply	Green dotted
IX	Already approved construction	Orange filled in
X	Revised/Altered building	Pink filled in
XI	Fire escapes	Orange dotted
XII	Any other	Purple dotted

- (9) The site plan to be sent along with the application shall be drawn to a scale of 1: 100 for plots upto five hundred square meter in size and on a scale of 1:500 for plots above five hundred square meter in size. This site plan shall show the following:-
- boundaries of the site and any contiguous features;
  - direction of the north point relative to the site;
  - streets or roads adjoining the site with their width clearly dimensioned and names, if any;
  - area calculations, such as ground coverage, floor area ratio, parking calculations, any other relevant calculations, as required;
  - disposal of waste water, sewerage and storm water or storage of hazardous waste;
  - details of buildings or drains or structures or physical features falling within five hundred meters of factory;
  - prominent urban service points above or underground (like sewer or water pipes, gas pipeline, transformers, electric poles or lines, phone distribution boxes, etc.) within five hundred metres area; and
  - such other particulars, as may be required by the Chief Inspector-cum-Facilitator.
- (10) The application shall consist of building plans, sections and elevations shall be drawn to the scale 1: 100 and shall include,
- floor plans of all the floors together with covered area clearly indicating the size and spacing of all framing members, sizes of rooms, staircases, ramps, lift wells, means of lighting, ventilation,

fire-escapes, position and size of plant or machinery or equipment, drinking water points, details of urinals or latrines, roof materials, washing facilities or detrenching facilities, space for storing or drying of clothes, crèche, rest-rooms, mess-rooms, canteens, ambulance room or occupational health centre;

- (b) one section from front showing the height of the building or room;
- (c) one section through the staircase;
- (d) the schedule indicating the size of the doors, windows, openings and other methods of ventilation of each room or area;
- (e) provision for differently-abled person, photovoltaic solar power plant, rain water harvesting system wherever required.

**87. Approval of plans of factory.-** On receiving an application on portal, if the Inspector-cum-Facilitator is satisfied that the plans, forms and documents are in accordance with the requirements of the Code and the rules made thereunder, he may forward the application to the Chief Inspector-cum-Facilitator for acceptance or may raise the observations and thereafter, forward the same to the Chief Inspector-cum-Facilitator for consideration and further action. The Chief Inspector-cum-Facilitator after being satisfied shall either approve the plans or agreeing with the report of the Inspector-Cum-Facilitator, return the application to the applicant for resolving the observations raised:

Provided that plans shall not be deemed to have been submitted till such time, as they are resubmitted duly modified and corrected.

**88. Stability Certificate.-** (1) No manufacturing process shall be carried on in any building or part thereof (whether newly constructed, re-constructed, altered, repaired or extended) as a factory or increase in machinery or change in process in any existing factory until a Certificate of Stability in Form-43 in respect thereof, has been accepted by the Chief Inspector-cum-Facilitator.

(2) The Certificate of Stability shall be signed by the competent person and the occupier jointly, along with the tests and analysis reports relating to stability.

(3) The occupier shall submit the Certificate of Stability to the Inspector-cum-Facilitator on portal. On receiving the application on portal, if the Inspector-Cum-Facilitator, is satisfied that the Certificate of Stability and attached documents are in accordance with the rules, he may forward the application to

the Chief Inspector-cum-Facilitator for acceptance or may raise the observations and thereafter, forward the same to the Chief Inspector-cum-Facilitator for consideration and further action. The Chief Inspector-cum-Facilitator after being satisfied shall, either accept the Certificate of Stability or agreeing with the report of the Inspector-Cum-Facilitator, return the application to the applicant for resolving the observations raised.

(4) The Stability Certificate accepted under this rule shall be valid for five years from the date of acceptance.

Section 79 **89. Pre-approved plans.-** Plans which have already been approved by the Chief Inspector of Factories under the Factories Act, 1948 before the coming into force of these rules, shall be deemed to have been approved under these rules.

Section 79 **90. Validity period of approval.-** Every approval for the proposed building plan shall become null and void, if no construction is started within one year from the date of such approval.

Section 79 **91. Revocation of approval.-** The approval granted under these rules may be revoked by the Chief Inspector-cum-Facilitator, if it is found that such approval has been obtained by the occupier or manager by misrepresentation of material facts or fraudulent document have been submitted along with the application or otherwise or the majority of construction is not being done in accordance with the approval granted.

Section 79 **92. Maintenance of register for building plans.-** The chief Inspector-cum-Facilitator shall maintain an online E-register in Form-44 for all building plan applications received, permissions given or deemed to have been given or refused or returned under these rules.

Section 79 **93. Specifications of rooms.-** (1) The internal height of a work room shall be not less than 4.25 meters measured from the floor level to the lowest part of the roof and if the roof is of corrugated iron which is neither covered with tiles nor has an inner ceiling or lining of heat-resisting material with an air space of at least 10 centimeters between it and the corrugated iron, the internal height shall be not less than 5 meters:

Provided that in the case of building having a brick or concrete roof, or a combination of the two, the minimum height may be 3.75 meters if

approved by the Chief Inspector-cum-Facilitator:

Provided further that in case of factories employing less than one hundred workers, the Chief Inspector-cum-Facilitator may, where he is satisfied that the conditions of work are reasonably good, exempt such factories from the provisions of this sub-rule:

Provided further that the provisions of this sub rule shall not apply to rooms intended for storage, godowns and like purposes and also rooms intended solely for office purposes where only clerical work is done.

(2) There shall be provided at all times for each person employed in any room of a factory where mechanical or electrical power is used, at least 36 square feet (3.35 square meter) of floor space exclusive of that occupied by machinery and a breathing space of at least 500 cubic feet (14 cubic meter).

(3) The rooms of the factory shall meet the standards on lighting, overcrowding, ventilation, fire-exits, latrines/urinals, drinking water, rest-room, crèche, canteen, ambulance room etc. as may be prescribed by the Central Government from time to time.

**94. Processing fee for building plans.-** (1) Processing fee, in respect of building plans, at the rate of rupees 2.80 per square feet shall be paid along with the application,-

- (a) if factory is on ground floor, on total plot area; and
- (b) if factory is having floors, on total covered area or total plot area, whichever is more.

(2) Processing fee to be paid under sub-rule (1) shall be paid on portal in such manner as may be specified and shall be credited to the "HEAD" as may be specified by the State Government from time to time.

**95. Prohibition of running a factory without a valid licence.-** (1) No occupier shall 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 and is in force for the time being.

(2) It shall be the responsibility of the occupier of the factory to get a valid license.

**96. Grant of license for factory.-** (1) The occupier of every factory shall

submit an application in Form-58 on portal for the grant of license.

(2) A licence for a factory shall be granted in Form-59 by the designated authority on payment of fees specified in Schedule-I under rule 149.

Section 79

**97. Amendment of factory licence.-** (1) A licence granted under sub-rule (2) of rule 96 may be amended by the designated authority.

(2) A licensee shall get the licence amended if;

- (i) name of the factory is to be changed;
- (ii) number of workers as specified in the licence are to be increased;
- (iii) motive power specified in KilloWatts in the licence is to be increased; or
- (iv) manufacturing process is to be changed.

(3) A licensee who desires to have his licence amended, shall submit an application on portal in Form-58 stating the nature of the amendment three days before such change or within three days from such change if the circumstances were such that the licensee could not make application for amendment.

(4) The fee for the amendment of a licence shall be five hundred rupees plus the amount of difference of fee required as per Schedule-I under rule-149.

(5) If the designated authority fails to amend the license within fifteen days, then such license shall be deemed to have been amended.

Section 79

**98. Renewal of factory licence.-** (1) A licence shall be renewed by the designated authority.

(2) Every application for renewal of the licence shall be made on portal in Form-58 together with fees for a period of one year or any further period up to ten years and shall be submitted not less than thirty days before the date on which the licence expires.

(3) The fees for renewal of licence for one year shall be the same as for the grant thereof. In case an application for renewal has been made for a period of one year or any number of years up to ten years, the renewal fees shall be the number of years multiplied by the fees payable for renewal of licence for one year, as specified in the Schedule-I under rule 149.

Section 79

**99. Transfer of factory licence.-** (1) The holder of a licence may, at any time before the expiry of the licence, apply for permission to transfer his licence to another person.

(2) Such application shall be made on portal in Form-58. The designated authority shall transfer the license after duly satisfying himself.

(3) A fee of one thousand rupees shall be charged for such transfer.

(4) If the designated authority fails to transfer the license within seven days, then such license shall be deemed to have been transferred.

**100. Procedure on death or disability of factory licensee.-** If a licensee dies or becomes insolvent, the person carrying on the business of such licensee shall make an application for the amendment of the licence under in his own name for the unexpired portion of the original licence. Section 79

(2) No fee shall be charged for such change if application is made within thirty days from date of death or insolvency.

**101. Late fee in relation to factory license.-** If the application for renewal or amendments as the case may be, is not received within the time specified in sub-rule (3) of rule 97 or sub-rule (2) of rule 98 or sub-rule (2) of rule 100, then an additional fee of twenty five percent of the fee ordinarily payable for the licence shall be payable for such renewal or amendment. Section 79

**102. Payment of fees in relation to factory license.-** The fees required under rules 96, 97, 98, 99 and 100 shall be paid on portal. Such fee shall be credited to the treasury in the head as may be specified by the State Government from time to time. Section 79

**103. Suspension of factory license.-** The Chief Inspector-cum-Facilitator or the designated authority with the approval of the Chief Inspector-cum-Facilitator, may after giving the licensee concerned, reasonable opportunity to show cause against the proposed action, suspend any license, if he is satisfied that the license was obtained by the licensee through fraud or by misrepresentation of facts or any other reason to be specified, and on such suspension of licence, the licensee shall not be entitled to the refund of the license fee. Section 79

**104. Liability of owner.-** The Chief Inspector-cum-Facilitator may through an order specify the liability of the owner and occupier jointly or separately on receiving the application from the occupier and owner of the factory: Section 80

Provided that in case the occupier or owner does not apply for the same, both occupier and owner shall be liable for the common services and facilities.



**105. Dangerous operations.-** (1) The following operations when carried on in any factory are declared to be dangerous operations:-

- (i) manufacture of aerated water and processes incidental thereto;
- (ii) electrolytic plating or oxidation of metal articles by use of an electrolyte containing acids, bases or salts of metals such as chromium, nickel, cadmium, zinc, copper, silver or gold;
- (iii) manufacture and repair of electric accumulators;
- (iv) glass manufacture;
- (v) grinding or glazing of metals;
- (vi) manufacture and treatment of lead and certain compounds of lead;
- (vii) generation of gas from dangerous petroleum;
- (viii) cleaning, smoothening or roughening etc. of articles by a jet of sand, metal shot, grit or other abrasive propelled by a blast of compressed air of steam;
- (ix) liming and tanning of raw hides and skins and processes incidental thereto;
- (x) carrying on of certain processes of lead and lead material in Printing Presses and Type Foundries;
- (xi) chemical works;
- (xii) manufacture of pottery and ceramics;
- (xiii) compression of Oxygen and Hydrogen produced by the electrolysis of water;
- (xiv) manipulation of stone or any other material containing free silica;
- (xv) handling and processing of asbestos, manufacture of any article of asbestos and any other process of manufacture or otherwise in which asbestos is used in any form;
- (xvi) handling and manipulation of corrosive substances;
- (xvii) use of ovens and driers in factories;
- (xviii) manufacture or Manipulation of Carcinogenic intermediates;
- (xix) process extracting vegetable oils from oil cakes in solvent extraction plants;

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- (xx) manufacture or manipulation of manganese and its compounds;
  - (xxi) protection against hazards of poisoning arising from benzene;
  - (xxii) carbon disulphide plants;
  - (xxiii) operations involving high noise levels;
  - (xxiv) manufacture or manipulation of dangerous pesticides;
  - (xxv) manufacture of rayon by viscose;
  - (xxvi) highly flammable liquids and flammable compressed gases;
  - (xxvii) operation in foundries;
  - (xxviii) textile machinery except used in jute mills;
  - (xxix) process of melting in induction furnace;
  - (xxx) wood working machinery;
  - (xxxi) rubber mills;
  - (xxxii) centrifugal machines;
  - (xxxiii) power presses;
  - (xxxiv) shears, slitters and guillotine machines;
  - (xxxv) thermic fluid heaters;
  - (xxxvi) manufacture of chromic acid or manufacture or recovery of the bichromate of sodium, potassium or ammonium; and
  - (xxxvii) welding/cutting operation with the use of LPG/Acetylene/Argon.
- (2) The provisions specified in the Schedules annexed hereto shall apply to such class or description of factories wherein dangerous operations specified in each Schedule are carried out.
- (3) (a) For the medical examination of workers to be conducted by the medical officer as required by the Schedules annexed hereto, the occupier of the factory shall pay fee at the rate of one hundred rupees per examination of each worker;
- (b) the fee specified in clause (a) shall be exclusive of any charges for biological, radiological or other tests which may have to be carried out in connection with the medical examination. Such charges shall be payable by the occupier; and

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- (c) the fees to be paid for medical examination shall be paid online through portal which shall be credited to the treasury in the head of account as may be specified by the State Government from time to time.
- (4) Wherever a periodical medical examination has been prescribed under the different Schedules, the occupier shall send a return in Form-45, to the Chief Inspector-cum-Facilitator, so as to reach him on or before the 5th day of every month in respect of medical examination of the workers conducted during the preceding month.
- (5) Notwithstanding anything contained in the Schedules annexed to this rule, the Inspector-cum-Facilitator may issue order in writing to the occupier, directing him to carry such measures, and within such time, as may be specified in such order with a view to remove conditions dangerous to the health of the worker or to suspend any process, where such process constitutes in the opinion of the Inspector-cum-Facilitator imminent danger of poisoning or toxicity.
- (6) Any register or record of medical examinations and tests connected therewith required to be carried out, under any of the Schedule 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 a period of one year after the worker ceases to be in employment of the factory.
- (7) For the purpose of this rule "Medical Officer" means a qualified medical practitioner having qualification as prescribed under rule 57 and recognised by the Chief Inspector-cum-Facilitator.

#### SCHEDULE I

##### MANUFACTURE OF AERATED WATERS AND PROCESSES INCIDENTAL THERETO

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

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

Provided that:-

- (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.
  - (ii) Where a machine is so constructed that only one arm of the bottler at work up to it is exposed to danger, a gauntlet need not be provided for the arm which is not exposed to danger.
- (2) The occupier shall provide and maintain in good condition for the use of all persons engaged in corking, crowning, screwing, wiring, foiling, capsuling, sighting or labelling bottles or syphons –
- (a) suitable face-guards to protect the face, neck and throat; and
  - (b) suitable gauntlets for both arms to protect the arm and at least half of the palm and the space between the thumb and forefinger.
- (3) Wearing of face guards and gauntlets. – All persons engaged in any of the processes specified in paragraph 2 of this schedule shall, while at work in such processes, wear the face guards and gauntlets provided under the provisions of the said paragraph.

## **SCHEDULE – II**

### **ELECTROLYTIC PLATING OR OXIDATION OF METAL ARTICLES BY USE OF AN ELECTROLYTE CONTAINING ACIDS, BASES**

### **OR SALTS OF METALS SUCH AS CHROMIUM, NICKEL, CADMIUM, ZINC, COPPER, SILVER, GOLD ETC.**

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

- (a) “electrolytic process” means the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing acids, bases or salts of metals such as chromium, nickel, cadmium, zinc, copper, silver, gold, etc.
- (b) “bath” means any vessel used for an electrolytic process or for any subsequent process; and
- (c) “Employed” means employed in any process involving contact with liquid

from a bath.

**2. Exhaust draught**

- (1) an efficient exhaust draught shall be applied to every vessel in which an electrolytic process is carried on.
- (2) The draught shall be provided by mechanical means and shall operate on the vapour or spray given off in the process as near as may be at the point of origin.
- (3) 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.
- (4) All equipment for the extraction or suppression of dust shall at least once in every six months be examined and tested by competent person, and any defect disclosed by such examination and test shall be rectified as soon as practicable.
- (5) A register containing particulars of such examination and tests shall be kept in Form 50

**3. Prohibition relating to pregnant women and adolescent** – No pregnant women or adolescent shall be employed or permitted to work at a bath.

**4. Floor of workrooms** – The floor of every workroom containing a bath shall be impervious to water. The floor shall be maintained in good and level condition and shall be washed down at least once a day.

**5. Protective devices** –

- (1) The occupier shall provide and maintain in good and clean condition the following articles of protective devices for the use of all persons employed on any process at which they are liable to come in contact with liquid from a bath and such devices shall be worn by the persons concerned
  - (i) waterproof aprons and bibs; and
  - (ii) for persons actually working at a bath, loose fitting rubber gloves and rubber boots or other waterproof footwear, and chemical goggles.
  - (iii) The occupier shall provide and maintain for the use of all persons employed suitable accommodation for the storage and drying of protective devices.

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**6. Water facilities –**

- (1) There shall be provided and maintained in good repairs for the use of all persons employed in electrolytic process and processes incidental to it-
- (a) a wash place under cover, with either-
- (i) a trough with a smooth impervious surface filled with a waste pipe, and of sufficient length to allow at least 60cms for every 5 persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60cms, or
- (ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and having a constant supply of water laid on.
- (iii) a sufficient supply of clean towels renewed daily, and soap or other suitable cleaning material.
- (2) In addition to the facility in sub-paragraph 1, an approved type emergency shower with eye fountain shall be provided and maintained in good working order. Whenever necessary, in order to ensure continuous water supply, storage tank of 1500 litres capacity shall be provided as a source of clean water for emergency use.

**7. Cautionary placard –** A cautionary placard in the form specified below and printed in the language of the majority of the workers employed shall be affixed in a prominent place in the factory where it can be easily and conveniently read by the workers.

**CAUTIONARY NOTICE**

**(Electrolytic Plating)**

- (i) Chemicals handled in this plant are corrosive and poisonous.
- (ii) Smoking, chewing tobacco, eating food or drinking, in this area is prohibited. No food stuff or drink shall be brought in this area.
- (iii) Some of these chemicals may be absorbed through the skin and may cause poisoning.
- (iv) A good wash shall be taken before meals.
- (iv) Protective devices supplied shall be used while working in this area.
- (vi) Spillage of the chemicals on any part of the body or on the floor shall be immediately washed away with water.

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- (vii) All workers shall report for the prescribed medical tests regularly to protect their own health.

**8. Medical examination by the Medical officer –** (1) Every worker employed in the electrolytic processes shall be examined by a Medical officer before his first employment. Such examination shall include X-ray of the chest and –

- (a) in case of chromium plating include examination for nasal septum perforation and test for chromium in urine
- (b) in case of nickel plating, test for nickel in urine; and
- (c) in case of cadmium plating, test for cadmium in urine and -2 macroglobulin in urine.

(2) No worker shall be employed in any electrolytic process unless certified fit for such employment by the Medical officer.

(3) Every worker employed in the electrolytic processes shall be re-examined by a Medical officer at least once in every year, except in case of the workers employed in cadmium, chromium and nickel plating processes for whom this examination shall be carried out once in every six months. Such re-examination shall, wherever the Medical officer considers appropriate, include tests as specified under sub-paragraph (1) excluding the X-ray of the chest which shall not be required normally to be carried out earlier than once in three years.

(4) The medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results of the tests, shall also be entered by the Medical Officer in a health register in Form-47.

(5) The certificate of fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

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

(7) No person who has been found unfit to work as said in sub-paragraph (6) shall be re-employed or permitted to work in the said processes unless the Medical officer after further examination, again certifies him fit for employment in these processes.

**SCHEDULE-III**  
**MANUFACTURE AND REPAIR OF ELECTRIC**  
**ACCUMULATORS**

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

**2. Definitions** – For the purposes of this schedule –

(a) “Lead process” means the melting of lead or any material containing lead, casting, pasting, lead burning, or any other work, including trimming, or any other abrading or cutting of pasted plates, involving the use, movement or manipulation of or contact with, any oxide of lead;

(b) “manipulation of raw oxide of lead” means any lead process involving any manipulation or movement of raw oxides of lead other than its conveyance in a receptacle or by means of an implement from one operation to another;

**3. Prohibition relating to pregnant women and Adolescent** – No pregnant women or adolescent shall be employed or permitted to work in any lead process or in any room in which the manipulation of raw oxide of lead or pasting is carried on.

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

- a. manipulation of raw oxide of lead;
- b. pasting;



- c. drying of pasted plates;
- d. formation with lead turning (tacking) necessarily carried on in connection therewith ; and
- e. melting down of pasted plates.

**5. Air space** – In every room in which a lead process is carried on, there shall be at least 14.2 cubic meters of air space for each person employed therein, and in computing this air space no height over 3.75 meters shall be taken into account.

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

**7. Distance between workers in pasting room** – In every pasting room the distance between the centre of the working position of any paster and that of the paster working nearest to him shall not be less than 1.5 meters.

**8. Floor of workrooms –**

- (1) The floor of every room in which lead process is carried on shall be –
  - (a) of cement or similar material so as to be smooth and impervious to water;
  - (b) maintained in sound condition; and
  - (c) kept free from materials, plant, or other obstructions not required for, or produced in, the process carried on in the room.
- (2) In all such rooms other than grid casting shops the floor shall be cleansed daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room.
- (3) In grid casting shops the floor shall be cleansed daily.
- (4) Without prejudice to the requirements of sub-paragraphs (1), (2) and (3), where manipulation of raw oxide of lead or pasting is carried on, the floor shall also be –
  - (a) kept constantly moist while work is being done;
  - (b) provided with suitable and adequate arrangements for drainage; and
  - (c) Thoroughly washed daily by means of hose pipe.

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

- (i) have a smooth surface and be maintained in sound condition
- (ii) be kept free from all materials or plant not required for, or produced in the process carried out there at, and all such work-benches other than those in grid casting shops shall be;
  - (a) cleaned daily either after being thoroughly damped or by means of suction cleaning apparatus at the time when no other work being carried on there at and
  - (b) all such work-benches in grid casting shops shall be cleaned daily;
- (iii) every work-bench used for pasting shall-
  - (a) be covered throughout with sheet lead and other impervious material;
  - (b) be provided with raised edges;
  - (c) be kept constantly moist while pasting being carried on.

**10. Exhaust draught-** (1) The following provisions shall not be carried on without the use of an efficient exhaust draught:-

- (a) Melting of lead or material containing lead.
- (b) Manipulation of raw oxide of lead unless done in an enclosed apparatus so as to prevent the escape of dust into work-room.
- (c) Pasting
- (d) Trimming, brushing, filing or any other abrading or cutting or pasted plates giving rise to dust.
- (e) Lead burning other than-
  - (i) “tacking” in the formation room
  - (ii) Chemical burning for making of lead linings for cell cases carried on in such a manner that the application of efficient exhaust is impracticable.

Such exhaust draught shall be affected by mechanical means and shall operate on the dust or fume given off as nearly as may be at the point of

reason so as to prevent it entering the air of any room in which persons works.

2. (a) All equipment for the extraction or suppression of dust shall at least once in every six months be examined and tested by competent person, and any defect disclosed by such examination and test shall be rectified as soon as practicable.
- (b) A register containing particulars of such examination and tests shall be kept in Form 50.

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

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

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

**14. Racks and shelves drying room** – The racks and shelves provided in any drying room shall not be more than 2.4 m from the floor and not more than 60 cm in width provided that as regards racks or shelves set or drawn from both sides the total width shall not exceed 1.2 m .

Such racks and shelves shall be cleaned only after being thoroughly damped unless so efficient suction cleaning apparatus is used for this purpose.

**15. Medical examination by the Medical officer** – (1) every worker employed in a lead processes shall be examined by a Medical officer within 15 days of his first employment. Such examination shall include test for lead in urine and blood, ALA in urine, haemoglobin content, stippling of cells and steadiness test. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in the said processes shall be re-examined by a Medical officer at least once in every 3 calendar months and such re-examination shall, wherever the Medical officer considers appropriate, include

tests specified in subparagraph(1) .

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub paragraphs(1) and (2), including the nature and the results of the tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

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

**16. Protective clothing-** protective clothing shall be provided and maintained in good condition for all person employed in-

- (a) Manipulation of raw oxide of lead
- (b) Pasting
- (c) The formation room And such clothing shall be worn by the person concerned.

The protective clothing shall consist of a water-proof apron and water-proof footwear; and also as required persons employed in the manipulation of raw oxide of lead or in the pasting the head covering shall be washed daily.

**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 sufficient

tables and benches.

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 a lead process-

(a) a cloak room for clothing put-off during working hours with adequate arrangements for drying the clothes, if wet. Such accommodation shall be separate from mess room.

(b) separate and suitable arrangements for the storage of protective clothing provided as per sub-rule (16)

**19. Washing facilities –** (1) There shall be provided and maintained in a clean state and in good repair for the use of all persons employed in a lead process –

(a) a wash place with either –

(i) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimetres for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimetres; or

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

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

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

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

**20. Time allowed for washing –** Before each meal and before the end of the day's work, at least ten minutes, in addition to the regular meal times, shall

be allowed for washing to each person employed in the manipulation of raw oxide of lead or in pasting.

Provided that if there is be one basin or 60 centimetres of trough for each such person, this paragraph shall not apply.

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

**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.

#### SCHEDULE – IV

##### GLASS MANUFACTURE

**1. Exemption-** If the Chief Inspector-cum-Facilitator is satisfied in respect of any factory or any class of process that, owing to the special methods of work or the special conditions in a factory or otherwise, any of the requirements of this schedule can be suspended or relaxed without danger to the persons employed therein, or that the application of this schedule or any part thereof is for any reason impracticable, he may by certificate in writing authorize such suspension or relaxation as may be indicated in the certificate for such period and on such conditions as he may think fit.

**2. Definitions –** For the purpose of this schedule –

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

(b) “lead compound” means any compound of lead other than galena which, when treated in the manner described below, yields to an aqueous solution of hydrochloric acid a quantity soluble lead compound exceeding, when calculated as lead monoxide, five percent of the dry weight of the portion taken analysis.

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The method of treatment shall be as follows:-

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

**3. Exhaust draught** – (1) The following processes shall not be carried on except under an efficient exhaust draught or such other conditions as may be approved by the Chief Inspector-cum-Facilitator:-

- (a) the mixing of raw materials to form a “Bator”;
  - (b) the dry grinding, glazing and polishing of glass or any article of glass;
  - (c) all processes in which hydrofluoric acid fumes or ammonical vapours are given off;
  - (d) all processes in the making of furnace moulds or “pots” including the grinding or crushing of used “pots”; and
  - (e) All processes involving the use of a dry lead compound.
- (2) (i) All equipment for the extraction or suppression of dust shall at least once in every six months be examined and tested by competent person, and any defect disclosed by such examination and test shall be rectified as soon as practicable.

(ii) A register containing particulars of such examination and tests shall be kept in Form 50.

**4. Prohibition relating to women and Adolescent** – No woman or adolescent shall be employed or permitted to work in any of the operations specified in paragraph 2 or at any place where such operations are carried on.

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

- (a) The floor shall be –

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

**(b)** The work-benches shall –

- (i) have a smooth surface and be maintained in sound condition, and
- (ii) cleansed daily either after being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on 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 gutta-percha and be tight and shall slope gently down to a covered drain;
- (c) the workplaces shall be so enclosed in projecting hoods that openings required for the bringing in the objects to be treated shall be as small as practicable; and
- (d) The efficient exhaust draught shall be so contrived that the gases are exhausted downwards.

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

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

**9. Food, drinks, etc., prohibited in workrooms** – No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any room or workplace wherein any process specified in paragraph 2 is carried on.

**10. Protective clothing** – The occupier shall provide, maintain in good repair and keep in a clean condition for the use of all persons employed in the processes



specified in paragraph 2 suitable protective clothing, footwear and goggles according to the nature of the work and such clothing, footwear, etc. Shall be worn by the persons concerned.

**11. Washing facilities** – (1) There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in the processes specified in paragraph 2

(2) a wash place with either –

(i) a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow of at least 60 centimetres for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimetres; or

(3) 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;

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

(5) a sufficient number of stand pipes with taps the number and location of which shall be to the satisfaction of the Chief Inspector-cum-Facilitator.

**12. Medical Examination by Medical officer** – (1) Every workers employed in processes specified in paragraph 2 shall be examined by the Medical officer within 15 days of his first employment. Such examination shall include pulmonary function tests and in suspected cases chest X-ray as well as tests for lead and urine. No worker shall be allowed to work after 15 days of first employment in the factory unless certified for such employment by the Medical officer.

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

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examination carried out

shall been entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under subparagraph(1) and (2), including the nature and the results of the tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) If at any time the Medical officer is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Medical officer, in which the person affected shall be suitably rehabilitated.

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

#### **SCHEDULE – V**

##### ***GRINDING OR GLAZING OF METALS AND PROCESSES INCIDENTAL THERETO***

**1. Definitions** – For the purposes of this schedule –

- (a) “grindstone” means a grindstone composed of natural or manufactured sandstone but does not include a metal wheel or cylinder into which blocks of natural or manufactured sandstone are fitted;
- (b) “abrasive wheel” means a wheel manufactured of bonded emery or similar abrasive;
- (c) “grinding” means the abrasion, by aid of mechanical power, of metal, by means of a grindstone or abrasive wheel;
- (d) “glazing” means the abrading, polishing or finishing, by aid of mechanical

power, of metal, by means of any wheel, buff, mop or similar appliance to which any abrading or polishing substance is attached or applied;

(e) “racing” means the turning up, cutting or dressing of a revolving grindstone before it is brought into use for the first time;

(f) “hacking” means the chipping of the surface of a grindstone by a hack or similar tool; and

(g) “rodding” means the dressing of the surface of a revolving grindstone by the application of a rod, bar or strip of metal to such surface.

**Exception –** (1) Nothing in this schedule shall apply to any factory in which only

repairs are carried on except any part thereof in which one or more persons are wholly or mainly employed in the grinding or glazing of metals.

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

**2. Equipment for removal of dust –**No racing, dry grinding or glazing shall be performed without –

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

(b) a duct of adequate size, air tight and so arranged as to be capable of carrying away the dust, which duct shall be kept free from obstruction and shall be provided with proper means of access for inspection and cleaning, and where practicable, with a connection at the end remote from the fan to enable the Inspector-cum-Facilitator to attach thereto any instrument necessary for ascertaining the pressure of air in the said duct; and

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

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

**3. Restriction on employment on grinding operations –** Not more than one person shall at any time perform the actual process of grinding or glazing

upon a grindstone, abrasive wheel or glazing appliance:

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

**4. 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.

**5. Hacking and rodding** – Hacking or rodding shall not be done unless during the process either an adequate supply of water is laid on at the upper surface of the grindstone or adequate appliances for the interception of dust are provided in accordance with the requirements of paragraph 3.

**6. Examination of dust equipment** – (1) All equipment for the extraction or suppression of dust shall at least once in every six months be examined and tested by competent person, and any defect disclosed by such examination and test shall be rectified as soon as practicable.

(2) A register containing particulars of such examination and tests shall be kept in Form-49.

**7. Medical examination by the Medical officer** – (1) every worker employed in grinding or glazing of metal and processes incidental thereto shall be examined by a Medical officer within 15 days of his first employment. Such examination shall include pulmonary function tests and in suspected cases chest X-rays. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in the said processes shall be re-examined by a Medical officer at least once in every 12 calendar months. Such re-examination shall, wherever the Medical officer considers appropriate, include tests as specified in sub-paragraph (1).

(3) The Medical officer after examining a worker shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the

tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) If at any time the Medical officer is of the opinion that a worker is no longer fit for employment in the said processes on the found that continuance therein would involve special danger to the health of the worker he shall make record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Medical officer, in which case the person affected shall be suitably rehabilitated.

(6) No person who has been found unfit to work as said in sub-paragraph (5) shall be 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.

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

#### **SCHEDULE – VI**

##### **MANUFACTURE AND TREATMENT OF LEAD AND CERTAIN COMPOUNDS OF LEAD**

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

**2. Definitions** – For this purpose of this schedule –

(a) “lead compound” means any compound of lead other than galena which, when treated in the manner described below, yields to an aqueous solution of

hydrochloric acid, a quantity of soluble lead compound exceeding, when calculated as lead monoxide, five per cent of the “dry weight” of the portion taken for analysis. In the case of paints and similar products and other mixtures containing oil or fat the “dry weight” means the dry weight of the material remaining after the substance has been thoroughly mixed and treated with suitable solvents to remove oil, fats, varnish or other media.

**The method of treatment shall be as follows:-**

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

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

**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 desilvering of lead or the melting of scrap lead or zinc;
- (c) the manufacture of solder or alloys containing more than ten percent of lead;
- (d) the manufacture of any oxide, carbonate, sulphate, chromate, acetate, nitrate or silicate of lead;
- (e) the handling or mixing of lead tetra-ethyl;

- (f) any other operation involving the use of a lead compound; and
- (g) The cleaning of workrooms where any of the operations aforesaid are carried on.

**4. Prohibition relating to pregnant women and Adolescent** – No pregnant women or adolescent shall be employed or permitted to work in any of the operations specified in paragraph 3.

**5. Requirements to be observed** – No person shall be employed or permitted to work in any process involving the use of lead compounds if the process is such that dust or fume from a lead compound is produced therein, or the persons employed there in are liable to be splashed with any lead compound in the course of their employment unless the provisions of paragraphs 5 to 13 are complied with.

**6. Exhaust draught** – (1) Where dust, fume, gas or vapour is produced in the process, provision shall be made for removing them by means of an efficient exhaust draught to contrived as to operate on the dust, fume, gas or vapour as closely as possible to the point of origin.

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

(ii) A register containing particulars of such examination and tests shall be kept in Form 50.

**7. Medical examination by the Medical officer** – (1) every worker employed in the operations referred to in paragraph 3 shall be examined by a Medical officer within 15 days of his first employment. Such examination shall include pulmonary function tests for lead in blood and urine, ALA in urine. haemoglobin content, stippling of cells and steadiness tests. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

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

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under subparagraphs(1) and (2), including the nature and the results of the tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) If at any time the Medical officer is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker he shall make record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Medical officer, in which case the person affected shall be suitably rehabilitated.

(6) No person who has been found unfit to work as said in sub-paragraph (5) shall be 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.

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

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

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

**11. Washing facilities** – (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 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 60 centimetres; or
  - (b) At least one wash-basin for every ten persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of clean water; together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material and clean towels.
- (2) The facilities so provided shall be placed under the charge of a responsible person and shall be kept clean.

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

**13. Cloakroom** – The occupier shall provide and maintain for the use of persons employed, suitable accommodation for clothing not worn during working hours, and for the drying of wet clothing.

## SCHEDULE – VII

### GENERATING PETROL GAS FROM DANGEROUS PETROLEUM

**1. Prohibition relating to pregnant women and Adolescent** – No pregnant woman or adolescent shall be employed or permitted to work in or shall be allowed to enter any building in which the generation of gas from dangerous petroleum is carried on.

**2. Flame traps** – The plant for generation of gas from dangerous petroleum and associated piping and fittings shall be fitted with at least two efficient flame traps so designed and maintained as to prevent a flash back from any burner to the plant. One of these traps shall be fitted as close to the plant as

possible. The plant and all pipes and valves shall be installed and maintained free from leaks.

**3. Generating building or room** – All plants for generation of gas from dangerous petroleum erected after the coming into force of the provisions specified in this schedule, shall be erected outside the factory building proper in a separate well ventilated building (hereinafter referred to as “generating building”). In the case of such plants erected before the coming into force of the provisions specified in this schedule, there shall be no direct communication between the room where such plants are erected (hereinafter referred to as “the generating room”) and the remainder of the factory building. So far as practicable, all such generating rooms shall be constructed of fire-resisting materials.

**4. Fire extinguishers** – An efficient means of extinguishing petrol fires shall be maintained in an easily accessible position near the plant for generation of gas from dangerous petroleum.

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

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

**7. Prohibition relating to smoking** – No person shall smoke or carry matches, fire or naked light or other means of producing a naked light or spark in the generation room or building or in the vicinity thereof and a warning notice in the language understood by the majority of the workers shall be posted in the factory prohibiting smoking and the carrying of matches, fire or naked light or other means of producing a naked light or spark into such room or building.

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

**9. Electric fittings** – All electric fittings shall be of flameproof construction and all electric conductors shall either be enclosed in metal conduits or be lead-sheathed.

**10. Construction of doors** – All doors in the generating room or building shall be constructed to open outwards or to slide and no door shall be locked or obstructed or fastened in a such a manner that it cannot be easily and immediately opened from the inside while gas is being generated and any person is working in the generating room or building.

**11. Repair of containers**- No vessel that has contained dangerous petroleum shall be repaired in a generating room or building and no repairs to any such vessel shall be undertaken unless live steam has been blown into the vessel and until the interior is thoroughly steamed out or other equally effective steps have been taken to ensure that it has been rendered free from dangerous petroleum or inflammable vapour.

#### **SCHEDULE – VIII**

### **CLEANING OR SMOOTHING, ROUGHENING, ETC. OF ARTICLES, BY A JET OF SAND, METAL SHOT, OR GRIT, OR OTHER ABRASIVE PROPELLED BY A BLAST OF COMPRESSED AIR OR STEAM (BLASTING REGULATIONS)**

**1. Definitions** – For the purposes of this schedule –

- (a) “blasting” means cleaning, smoothing, roughening, or removing of any part of the surface of any article by the use of an abrasive of a jet of sand, metal shot, or grit or other material, propelled by a blast of compressed air or steam ;
- (b) “blasting enclosure” means a chamber, barrel, cabinet or any other enclosure designed for the performance of blasting therein;
- (c) “blasting chamber” means a blasting enclosure in which any person may enter at any time in connection with any work or otherwise; and
- (d) “cleaning of castings” where done as an incidental or supplemental process in connection with the making of metal castings, means the freeing of the casting from adherent sand or other substance and includes the removal of cores and the general smoothing of a casting, but does not include the free treatment.

**2. Prohibition of sand blasting** – Sand or any other substance containing

free silica shall not be introduced as an abrasive into any blasting apparatus and shall not be used for blasting :

Provided that this clause shall come into force two years after the coming into operation of this schedule.

Provided further that no woman or adolescent shall be employed or permitted to work at any operation of sand blasting.

**3. Precautions in connection with blasting operations** – (1) Blasting shall not be done except in a blasting enclosure and no work other than blasting and any work immediately incidental thereto and clearing and repairing of the enclosure including the plant and appliances situated therein, shall be kept closed and air tight while blasting is being done therein.

(2) Maintenance of blasting enclosure: Blasting enclosure shall always be maintained in good condition and effective measures shall be taken to prevent dust escaping from such enclosure, 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-cum-Facilitator is of opinion that it is not reasonably practicable to provide such separating apparatus.

(4) Provision of ventilating plant: There shall be provided and maintained in connection with every blasting enclosure efficient ventilating plant to extract, by exhaust draught effected by mechanical means, dust produced in the enclosure. The dust extracted and removed shall be disposed of by such method and in such manner that it shall not escape into the air of any room; and every other filtering or settling device situated in a room in which persons are employed, other than persons attending to such bag or other filtering or settling device, shall be completely separated from the general air of that room in an enclosure

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ventilated to the open air.

(5) Operation of ventilating plant: The ventilating plant provided for the purpose of subparagraph(4) shall be kept in continuous operation whenever the blasting enclosure is in use whether or not blasting is actually taking place therein, and in the case of a blasting chamber, it shall be in operation even when any person is inside the chamber for the purpose of cleaning.

**4. Inspection and examination –** (1) Every blasting enclosure shall be specially inspected by a competent person at least once in every week in which it is used for blasting. Every blasting enclosure, the apparatus connected therewith and the ventilating plant shall be thoroughly examined and in the case of ventilating plant, tested by a competent person at least once in every month.

(2) Particulars of the result of every such inspection, examination or test shall forthwith be entered in a register which shall be kept in a form approved by the Chief Inspector-cum-Facilitator and shall be available for inspection by any workman employed in or in connection with blasting in the factory. Any defect found on any such inspection, examination or test shall be immediately reported by the person carrying out the inspection, examination or test to the occupier, manager or other appropriate person and without prejudice to the foregoing requirements of this schedule, shall be removed without avoidable delay.

**5. Provision of protective helmets, gauntlets and overalls –** (1) There shall be provided and maintained for the use of all persons who are employed in a blasting chamber, whether in blasting or in any work connected therewith or in cleaning such a chamber, protective helmets of a type approved by a certificate of the Chief Inspector-Cum-Facilitator; and every such person shall wear the helmet provided for this use whilst he is in the chamber and shall not remove it until he is outside the chamber.

(2) Each protective helmet shall carry a distinguishing mark indicating the person by whom it is intended to be used and no person shall be allowed or required to wear a helmet not carrying his mark or a helmet which has been worn by another person and has not since been thoroughly disinfected.

(3) Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate of not less 170 litres per minute.

(4) Suitable gauntlets and overalls shall be provided for the use of all persons while performing blasting or assisting at blasting, and every such person shall while so engaged, wear the gauntlet and overall provided.

**6. Precautions in connection with cleaning and other work –** (1) Where any person is engaged upon cleaning of any blasting apparatus or blasting enclosure or of any apparatus or ventilating plant connected therewith or the surroundings thereof or upon any other work in connection with any blasting apparatus or blasting enclosure or with any apparatus or ventilating plant connected therewith so that he is exposed to the risk of inhaling dust which has arisen from blasting, all practicable measures shall be taken to prevent such inhalation.

(2) In connection with any cleaning operation referred to in paragraph 5, and with the removal of dust from filtering or settling devices all practicable measures shall be taken to dispose of the dust in such a manner that it does not enter the air of any room. Vacuum cleaners shall be provided and used wherever practicable for such cleaning operations.

**7. Storage accommodation for protective wear –** Adequate and suitable storage accommodation for the helmets, gauntlets and overalls required to be provided by paragraph 5 shall be provided outside and conveniently near to every blasting enclosure and such accommodation shall be kept clean. Helmets, gauntlets and overalls when not in actual use shall be kept in this accommodation.

**8. Maintenance and cleaning of protective wear –** All helmets, gauntlets, overalls and other protective devices or clothings provided and worn for the purposes of this schedule, shall be kept in good condition and so far as is reasonably practicable shall be cleaned on every weekday in which they are used. Where dust arising from the cleaning of such protective clothing or devices is likely to be inhaled, all practicable measures shall be taken to prevent such inhalation. Vacuum cleaners shall, wherever practicable, be used for removing dust from such clothing and compressed air shall not be used for removing dust from any clothing.

**9. Maintenance of vacuum cleaning plant –** Vacuum cleaning plant used for the purpose of this schedule shall be properly maintained.

**10. Restrictions in employment of Adolescent –** (1) No person under 18

years of age shall be employed in blasting or assisting at blasting or in any blasting chamber or in the cleaning of any blasting apparatus or any blasting enclosure or any apparatus or ventilating plant connected therewith or be employed on maintenance or repair work at such apparatus, enclosure or plant.

(2) No person under 18 years of age shall be employed to work regularly within twenty feet of any blasting enclosure unless the enclosure is in a room and he is outside that room where he is effectively separated from any dust coming from the enclosure.

**11. Power to exempt or relax –** (1) If the Chief Inspector-cum-Facilitator is satisfied that in any factory or any class of factory, the use of sand or other substance containing free silica as an abrasive in blasting is necessary for a particular manufacture or process (other than the process incidental or supplemental to making of metal castings) and that the manufacture or process cannot be carried on without the use of such abrasive or that owing to the special conditions or special method of work or otherwise any requirement of this schedule can be relaxed without endangering the health of the persons employed or that application of any such requirements is for any reason impracticable or inappropriate, he may, with the previous sanction of the State Government, by an order in writing exempt the said factory or class of factory from such provisions of this schedule, to such an extent and subject to such conditions and for such period as may be specified in the said order.

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

**12. Medical examination by the Medical officer –** (1) every worker employed in any of the processes to which this schedule shall be examined by a Medical officer within 15 days of his first employment. Such examination shall include pulmonary function tests and chest X-rays. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in the said processes shall be re-examined by a Medical officer at least once in every 12 calendar months and such re-examination shall, wherever the Medical officer considers appropriate, include

pulmonary function test and chest X-ray once in every three years.

(3) The Medical officer after examining a worker shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under subparagraphs(1) and (2), including the nature and the results of the tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) If at any time the Medical officer is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker he shall make record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Medical officer, in which case the person affected shall be suitably rehabilitated.

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

#### **SCHEDULE – IX**

##### **LIMING AND TANNING OF RAW HIDES AND SKINS AND PROCESSES INCIDENTAL THERETO.**

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

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



calendar year.

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

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

(5) If any person employed in the factory is illiterate, effective steps shall be taken to explain carefully to such illiterate person the contents of the notice specified in subparagraphs (1), (2) and (4) and if chrome solutions are used in the factory, the contents of the notice specified in sub-paragraph (3).

**2. Protective clothing** – The occupier shall provide and maintain in good condition the following articles of protective clothing :-

- (a) waterproof footwear leg coverings, aprons and gloves for persons employed in processes involving contact with chrome solutions, including the preparation of such solutions;
- (b) gloves and boots for persons employed in lime yard;
- (c) protective footwear, aprons and gloves for persons employed in processes involving the handling of hides and skins, other than in processes specified in subparagraphs(a) and (b) above :

Provided that:-

- (i) the gloves, aprons, leg coverings or boots may be of rubber or leather, but the gloves and boots to be provided under sub-paragraphs (a) and (b) shall be of rubber.
- (ii) the gloves may not be provided to persons fleshing by hand or employed in processes in which there is no risk of contact with lime, sodium sulphide or other caustic liquor.

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

- (a) a trough with a smooth impervious surface fitted with a waste pipe, without

plug, and of sufficient length to allow of at least 60 centimetres for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimetres; or

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

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

- (i) be separate from any room or shed in which hides or skins are stored, treated or manipulated;
- (ii) be separate from the cloakroom; and
- (iii) be placed under the charge of a responsible person; and

(d) the occupier shall provide and maintain for use of all persons employed suitable accommodation for clothing put off during working hours and another accommodation for protective clothing and also adequate arrangements for drying up the clothing in both the cases, if wet. The accommodation so provided shall be kept clean at all times and placed under the charge of a responsible person.

**4. Food, drinks, etc. Prohibited in workrooms** – No food, drink, pan and 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. Medical Examination by Medical officer** – (1) every worker employed in shall be examined by a Medical officer within 15 days of his first employment. Such examination shall include No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in the said processes shall be re-examined by the Medical officer at least once in every twelve calendar months. Such re-examination shall, wherever the Medical officer considers appropriate, include

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tests as specified in subparagraph(1).

(3) The Medical officer after examining a worker shall issue a Certificate of Fitness in Form- 47. The record of examination and re-examination carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraph (1) and (2),including the nature and the results of the tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) If at any time the Medical officer is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Medical officer, in which case the person affected shall be suitable rehabilitated.

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

#### **SCHEDULE – X**

#### **CARRYING ON OF CERTAIN PROCESSES OF LEAD AND LEAD MATERIAL IN PRINTING PRESSES AND TYPE**

#### **FOUNDRIES**

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

**2. Definitions –** For the purpose of this schedule –

- (a) “lead material” means material containing not less than five per cent of lead;
- (b) “lead process” means –
  - (i) the melting of lead or any lead material for casting and mechanical composing;
  - (ii) the recharging of machines with used lead material;
  - (iii) any other work including removal of dross from melting pots and cleaning of plungers; and
  - (iv) Manipulation, movement or other treatment of lead material.
- (c) “efficient exhaust draught” means localised ventilation effected by head or mechanical means for the removal of gas, vapour, dust or fumes so as to prevent them from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fume, or dust originate.

**3. Exhaust draught –**

(1) None of the following processes shall be carried on except with an efficient exhaust draught unless carried on in such a manner as to prevent free escape of gas, vapour, fumes or dust into any place in which work is carried on, or unless carried on in electrically heated and thermostatically controlled melting pots:-

- (a) melting lead material or slugs; and
- (b) Heating lead material so that vapour containing lead is given off.

Provided that the aforesaid processes may be carried on without efficient exhaust draught if they are carried on in such a manner as to prevent free escape of gas, vapour, fume or dust into any place in which work is being done or is carried on in electrically-heated and thermostatically controlled melting pots.

(2) Such exhaust draught shall be effected by mechanical means and so contrived as to operate on the dust, fume, gas or vapour given off as closely as may be at its point of origin.

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

(b) A register containing particulars of such examination and tests shall be kept in Form 50.

**4. Prohibition relating to pregnant women and Adolescent** – No pregnant woman or adolescent 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 processes :-

- (a) melting of lead or any lead material;
- (b) casting of lead ingots; and
- (c) Mechanical composing.

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

**7. Floor of workroom** – The floor of every workroom where lead process is carried on shall be –

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

**8. Mess room** – There shall be provided and maintained for the use of all persons employed in a lead process and remaining on the premises during the meal intervals, a suitable mess room which shall be furnished with sufficient tables and benches.

**9. Washing facilities** – (1) There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in a lead process –

- (a) a wash place with either –

(i) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimetres for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimetres; or

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

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

10. Medical examination by Medical officer – (1) Every worker employed in a lead processes shall be examined by a Medical officer within 15 days of his first employment. Such examination shall include tests for lead in urine and blood. ALA in urine, haemoglobin content, stippling of cells and steadiness test. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the 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 re-examination shall, wherever the Medical officer considers appropriate, include tests as specified in sub- paragraph (1).

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under subparagraphs(1) and (2), including the nature and the results of the tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) if at any time medical officer is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker he 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 Medical officer, in which case the person affected shall be suitably rehabilitated.

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

**11. Food, drinks, etc. Prohibited in workrooms** – No food, drink, pan and supari or tobacco shall be consumed or brought by any worker into any workroom in which any lead process is carried on.

12. The occupier shall provide to all persons employed in lead process two full sleeve overall every year, arrange for their weekly washing and maintain these in good condition. The person employed in such a process shall wear these overall while engaged in such work.

## SCHEDULE – XI

### CHEMICAL WORKS

#### PART I

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

**2. Definitions** – For the purpose of this schedule –

(a) “chemical works” means any factory or such parts of any factory as are listed in appendix `A’ to this schedule;

(b) “efficient exhaust draught” means localised ventilation effected by mechanical or other means for the removal of gas, vapour, fume or dust to prevent it from escaping into the air of any place in which work is carried on;

(c) “bleaching powder” means the bleaching powder commonly called chloride of lime;

(d) “chlorate” means chlorate or per chlorate;

(e) “caustic” means hydroxide of potassium or sodium;

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- (f) “chrome process” means the manufacture of chromate or dichromate of potassium or sodium, or the manipulation, movement or other treatment of these substances;
- (g) “nitro or amino process” means the manufacture of nitro or amino derivatives of phenol and of benzene or its homologues, and the making of explosives with the use of any of these substances;
- (h) the term ‘permit to work’ system means the compliance with the procedures laid down under Para 20 of Part II;
- (i) “toxic substances” means all those substances which when they enter into the human body, through inhalation or ingestion or absorption through skin, in sufficient quantities cause fatality or exert serious affliction of health, or chronic harmful effects on the health of persons exposed to it due to its inherent chemical or biological effects. In respect of substances whose TLV is specified in Rule-13 exceeding the concentration specified therein would make the substance toxic;
- (j) “emergency” means a situation or condition leading to a circumstance or set of circumstances in which there is danger to the life or health of persons or which could result in big fire or explosion or pollution to the work and outside environment, affecting the workers or neighbourhood in a serious manner, demanding immediate action;
- (k) “dangerous chemical reactions” means high speed reactions, runaway reactions, delayed reactions, etc. And are characterised by evolution of large quantities of heat, intense release of toxic or flammable gases or vapours, sudden pressure build-up etc.;
- (l) “manipulation” means mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping, handling, using, etc.;
- (m) “approved personal protective equipment” means items of personal protective equipment conforming to the relevant ISI specifications or in the absence of it, personal protective equipment approved by the Chief Inspector-cum-Facilitator;
- (n) “appropriate personal protective equipment” means that when the protective equipment is used by the worker, he shall have no risk to his life or health or body; and



(o) “confined space” means any space by reason of its construction as well as in relation to the nature of the work carried therein and where hazards to the persons entering into or working inside exist or are likely to develop during working.

## PART II

### General Requirements

Applying to all the works in Appendix `A`

#### 1. Housekeeping –

- (1) Any spillage of materials shall be cleaned up before further processing.
- (2) Floors, platforms, stairways, passages and gangways shall be free of any obstructions.
- (3) There shall be provided easy means of access to all parts of the parts of the plant to facilitate cleaning.

**2. Improper use of chemicals-**No chemicals or solvents or empty containers containing chemicals or solvents shall be permitted to be used by workers for any purpose other than in the processes for which they are supplied.

**3. Prohibition on the use of food to be specified clearly** – No food, drink, tobacco, pan or any edible item shall be stored or heated or consumed on or near any part of the plant or equipment.

#### 4. Cautionary Notices and Instructions –

- (1) Cautionary notices in a language understood by the majority of workers shall be prominently displayed in all hazardous areas drawing the attention of all workers about the hazards to health, hazards involving fire and explosion and any other hazard such as consequences of testing of material or substances used in the process or using any contaminated container for drinking or eating, to which the workers’ attention should be drawn for ensuring their safety and health.
- (2) In addition to the above cautionary notice, arrangement shall be made to instruct and educate all the workers including illiterate workers about the hazards in the process including the specific hazards to which they may be exposed to, in the normal course of their work. Such instructions and education should also deal with the hazards involved in unauthorised and unsafe practices including

the properties of substances used in the process under normal conditions as well as abnormal conditions and the precautions to be observed against each and every hazard. Further, an undertaking from the workers shall be obtained within one month of their employment 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 the raw materials used, the final products to be made and any by-products derived during manufacture, shall be carefully studied and provisions shall be made for dealing with any hazards including effects on workers, which may occur during manufacture.

(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-paragraph (1) should be sent to the Chief Inspector-cum-Facilitator at the earliest but in no case less than 15 days before commencing manufacture, handling, or storage of any of items covered under Appendix `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-Paragraphs (1) (2) and (3) shall not act in lieu of or in derogation to, any other provisions contained in any Act governing the work.

**6. Authorized entry –** Authorized persons only shall be permitted to enter

any section of the factory or plant where any dangerous operations or processes are being carried on or where dangerous chemical reactions are taking place or where hazardous chemicals are stored.

**7. Examination of instruments and safety devices –**

- (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 and examined once in six months, 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 explosively 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 of adequate strength taking into consideration the hazardous nature of the contents. They shall also be provided with adequate labelling and colour coding arrangements to enable identification of the containers and their contents indicating the hazards and safe handling methods and shall conform to the respective ISI standards. The instructions given in the label shall be strictly adhered to. Damaged containers shall be handled only under supervision of a knowledgeable and responsible person and spillage shall be rendered innocuous in a safe manner using appropriate means.
- (2) The arrangements for the storage of chemicals including charging of chemicals in reaction vessels and containers shall be such as to prevent any risk of fire or explosion or formation of toxic concentration of substances above the limits specified in these Rules.
- (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 take 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 products, which are highly unstable or reactive or explosive shall be limited to the quantities required for two months use.

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

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

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

(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 the stress, if any, exerted by the contents and shall be properly anchored. Working platforms, access ladders, pipelines etc used in such storage facility shall not have any support on the structure of the storage facility and shall be independently supported.

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

**11. Personal protective equipment –**

(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, sterile and hygienic

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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 buried pipes and equipment, to control the escape and spread of substances which are likely to give rise to fire or explosion or toxic hazards during normal working and in the event of accident or emergency.
- (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 suitably treating the substances.

**14. Control of dangerous chemical reactions** – Suitable provision, such as automatic and or remote control arrangements, shall be made for controlling the effects of dangerous chemical reactions'. In the event of failure of control arrangements automatic flooding or blanketing or other effective arrangements shall come into operation.

**15. Testing, examination and repair of plant & equipment –**

(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 mentioned above in respect of pressure vessels or reaction vessels the following precautions shall be observed, namely –

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

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

(c) and any vessel which fails to pass the test or which for any other reason is found to be unsafe for use shall be destroyed or rendered unusable under intimation to the Chief Inspector-cum-Facilitator.

(2) All parts of plant, equipment, machinery which is 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 persons doing the work. When repairs or modification is done on pipelines, and joints are required to be welded, butt welding of joints shall be preferred. Wherever necessary, the responsible person shall regulate the aforesaid work through a 'Permit to work system'.

**16. Staging –**

(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 of persons working on the stages.

(3) All the staging constructed for the purpose of this Paragraph 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 or maintenance, either due to failure of plant and equipment or due to the substances which are under pressure, escaping into the atmosphere.

**18. Entry into or work in confined spaces –**

(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;

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- (b) regulate the entry or work inside the confined spaces through a 'permit to work system' which should include the safeguards so developed as required under sub-clause (a) above;
  - (c) before testing the confined space for entry into or work, the place shall be rendered safe by washing or cleaning with neutralising agents; or purging with steam or inert gases and making adequate forced ventilation arrangements or such measure which will render the confined space safe;
  - (d) Shall arrange to carry out such tests as are necessary for the purpose by a competent person and ensure that the confined space is safe for the persons to enter or work. Such testing shall be carried out as often as is necessary during the course of work to ensure its continued safety;
  - (e) shall arrange to educate and train the personnel who would be required to work in confined spaces about the hazards involved in the work. He shall also keep in readiness the appropriate and approved personal protective equipment including arrangements for, rescue resurrección and first aid, and shall arrange supervision of the work at all times by a responsible and knowledgeable person.
  - (f) The occupier shall maintain a log of all entry into or work in, confined spaces and such record shall contain the details of persons assigned for the work, the location of the work and such other details that would have a bearing on the log book so maintained shall be retained as long as the concerned workers are in service and produces to the Inspector-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' employing 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 any specified work to be subjected to the permit to work system –

- (a) all work subject to the permit to work system shall be carried out under the supervision of a knowledgeable and responsible person;
- (b) all parts of plant or machinery or equipment on which permit to work system is carried out, shall remain isolated from other parts throughout the period of permit to work and the place of work including the parts of plant, machinery shall be rendered safe by cleaning, purging, washing, etc.;
- (c) All work subject to the permit to work system shall have predetermined work procedures which integrate safety with the work. Such procedures shall be reviewed whenever any change occurs in material or equipment so that continued safety is ensured;
- (d) persons who are assigned to carry out the permit to work system shall be physically fit in all respects taking into consideration the demands and nature, of the work before entering into the confined space. Such person shall be adequately informed about the correct work procedures as well as the precautions to be observed while carrying out the permit to work system;
- (e) adequate rescue arrangements wherever considered necessary and adequate first aid, rescue and resuscitation arrangements shall be available in good working condition near the place of work while carrying out the permit to work system, for use in emergency;
- (f) appropriate and approved personal protective equipment shall be used while carrying out the 'permit to work system';
- (g) after completion of work subject to the 'permit to work system' the person responsible shall remove all the equipment and tools and restore to the original condition so as to prevent any danger while carrying out regular process.

**21. Safety sampling personnel** – The occupier shall ensure the safety of persons assigned for collecting samples by instructing them on the safe procedures. Such personnel shall be provided with proper and approved personal protective equipment, if required.

**22. Ventilation** – Adequate ventilation arrangements shall be provided and maintained at all times in the process area where dangerous or toxic or flammable or explosive substances could be evolved. These arrangements shall ensure that concentrations, which are either harmful or could result in explosion, are not permitted to be built up in the work environment.

**23. Procedures for meeting emergencies –**

(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 plan to meet all such identified emergencies including arrangements for summoning outside help for rescue and fire fighting 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 recognisable warning arrangements to caution all persons inside the plant as well as the neighbouring community, if necessary, to enable evacuation of persons and to enable the observance of emergency procedures by the persons who are assigned emergency duties. All concerned must be well informed about the warning arrangements and their meaning. The arrangements must be checked for its effectiveness every month.

(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 percent of the workers trained in the use of First Aid Fire Fighting appliances and in the rendering of specific hazards of the particular process.

(10) The occupier shall furnish immediately on request the specific chemical identity of the hazardous substance to the treating physician where the information is needed to administer proper emergency or first-aid treatment to exposed persons.

#### **24. Danger due to effluents –**

(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 systems to ensure that they may be trapped and rendered safe.

### **PART III**

#### **Fire and Explosion Risks**

##### **1. Sources of ignition including lighting installation.-**

(1) No internal combustion engine and no electric motor or other electrical equipment, and fittings and fixtures capable of generating sparks or otherwise causing combustion or any other source of ignition or any naked light shall be installed or permitted to be in the process area where there could be fire and explosion hazards.

(2) All hot exhaust pipes shall be installed outside a building and other hot pipes or hot surface or surfaces likely to become hot shall be suitably protected.

(3) The classification of work areas in terms of its hazard potential and the selection of electrical equipment or other equipment that could constitute a source of ignition shall be in accordance with the respective Indian Standard.

(4) Where a flammable atmosphere may be prevalent or could occur, the soles of footwear worn by workers shall have no metal on them, and the wheels of trucks or conveyors shall be conductive type.

(5) All tools and appliances used for work in this area shall be of non-sparking type.

(6) Smoking in process areas where there are risks of fire and explosion shall be prohibited, and warning notices in the language understood by majority of workers shall be posted in the factory prohibiting smoking into specified areas.

## **2. Static Electricity –**

(1) All machinery and plant, particularly, pipe lines and belt drives, on which static charge is likely to accumulate, shall be effectively earthed. Receptacles for flammable liquids shall have metallic connections to the earthed supply tanks to prevent statics parking. Where necessary, humidity shall be regulated.

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

**3. Lightning protection –** Lightning protection arrangement shall be fitted where necessary, and shall be maintained.

**4. Process heating –** The method of providing heat for a process likely to result in fire and explosion shall be as safe as possible and where the use of naked flame is necessary, the plant shall be so constructed as to prevent any escaping flammable gas, vapour, or dust coming into contact with the flame, or exhaust gases, or other sources likely to cause ignition. Wherever possible, the heating arrangement shall be automatically controlled at a pre-determined temperature below the danger temperature.

## **5. Leakage of flammable liquids –**

(1) Provision shall be made to confine by means of bund walls, dykes, sumps etc. Possible leakages from storage vessels containing flammable liquids.

(2) Waste material in contact with flammable substances shall be disposed off

suitably under the supervision of knowledgeable and responsible person.

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

**6. Safety valves** – Every still and every closed vessel which gas is evolved or into which gas is passed, and in which the pressure is liable to rise above the atmospheric pressure, shall have attached to it a pressure gauge, and a proper safety valve or other equally efficient means to relieve the pressure. These appliances shall be maintained in good condition.

**7. Installation of pipe line etc** – All pipelines carrying flammable or explosive substances shall be protected from mechanical damage and shall be examined by a responsible person once a week to detect any deterioration or defects, or accumulation of flammable or explosive substances, and record kept of any defects found and repairs made.

**8. Fire fighting systems –**

(1) Every factory employing 250 or more persons and carrying out processes listed in Appendix `A' shall provide –

(a) Trained and responsible fire fighting squad so as to effectively handle the fire fighting and life saving equipment in the event of fire or other emergency. Number of persons in this squad will necessarily depend upon the size of risk involved, but in no case shall be less than 8 such trained persons to be available at any time. The squad shall consist of watch & ward personnel, fire pump man and departmental supervisors and operators trained in the operation of fire & emergency services.

(b) Squad leaders shall preferably be trained in a recognised government institution and their usefulness enhanced by providing residence on the premises.

(c) Squad personnel shall be provided with clothing and equipment including helmets, boots and belts.

(2) A muster roll showing the duties allocated to each member of the squad shall be prepared and copies supplied to each leader as well as displayed in prominent places so as to be easily available for reference in case of emergency.

(3) The pump man shall be thoroughly conversant with the location of all appliances. He shall be responsible for maintaining all fire fighting equipment in proper working order. Any defect coming to his notice shall be immediately

be brought to the notice of squad leader.

(4) As far as is practicable, the fire pump room and the main gate(s) of the factory be connected to all manufacturing or storing areas through telephone inter lined and placed in a convenient location near such areas.

## **PART IV**

### **Risks of Toxic Substances**

#### **1. Leakage –**

(1) All plants shall be so designed and constructed as to prevent the escape of toxic substance. Where necessary, separate buildings, rooms, or protective structures shall be used for the dangerous stages of the process and buildings shall be so designed as to localise any escape of toxic substances.

(2) Catch pits, bund walls, dykes, or other suitable safeguards shall be provided to restrict the serious effects of such leakages. Catch pits shall be placed below joints in pipelines where there is danger involved to maintenance and other workers from such leakage.

**2. Drainage –** Adequate drainage shall be provided and shall lead to collection tanks specifically provided for this purpose wherein deleterious material shall be neutralised, treated or otherwise rendered safe before it is discharged into public drains or sewers.

#### **3. Covering of vessels –**

(1) Every fixed vessel or structure containing any toxic substance and not so covered as to eliminate all reasonable risk of accidental contact of any portion of the body of a worker, shall be so constructed as to avoid physical contact.

(2) Such vessel shall, unless its edge is at least 90 centimetres above the adjoining ground or platform, be securely fenced to a height of at least 90 centimetres above such adjoining ground or platform.

(3) Where such vessels adjoin and the space between them, clear of any surrounding brick or other work is either less than 45 centimetres in width or is 45 or more centimetres in width, but is not securely fenced on both sides to a height of at least 90 centimetres, secure barriers shall be so placed as to prevent passage between them :

Provided that sub-paragraph (2) of this paragraph shall not apply to –

- (a) saturators used in the manufacture of sulphate of ammonia; and
- (b) That part of the sides of brine evaporating pans which require raking, drawing or filling.

#### **4. Continuous exhaust arrangement –**

- (1) Any process evolving toxic vapour, gas, fume and substance shall have efficient continuous exhaust draught. Such arrangement shall be interlocked in the process control wherever possible.
- (2) In the event of failure of continuous exhaust arrangement means shall be provided to automatically stop the process.

**5. Work Bench –** All the work benches used in the processes involving the manipulation of toxic substances, shall be graded properly and shall be made of smooth impervious surface which shall be washed daily after the completion of work.

#### **6. Waste disposal –**

- (1) There shall be provided a suitable receptacle made of non-absorbable material with a tightly fitting cover for depositing waste material soiled with toxic substances and the contents of such receptacle shall be destroyed by burning or using other suitable methods under the supervision of a responsible person.
- (2) During the course of manufacture, whenever any batch or intermediate products having toxicity is rejected on considerations of quality, sufficient precautions shall be taken to render them innocuous or otherwise treat them or inactivate them, before disposal.
- (4) The empty containers of toxic substances shall be cleaned thoroughly before disposal under the supervision of a responsible person.

### **PART V**

#### **Special Provisions**

##### **1. Special precautions for Nitro or Amino Processes –**

- (1) Unless the crystallised nitro or amino substances or any of its liquor is broken or agitated in a completely enclosed process so as not to give rise to dust or fume, such process shall be carried on under an efficient exhaust draught or by adopting any other suitable means in such a manner as to prevent

the escape of dust or fume in the working atmosphere.

(2) No part of the plant or equipment or implements which was in contact with nitro or amino compounds shall be repaired, or handled unless they have been emptied and thoroughly cleaned and decontaminated.

(3) Filling of containers with nitro or amino compounds shall be done only by using a suitable scoop to avoid physical contact and the drying of the containers in the store shall be done in such a manner that the hot and contaminated air from the stove is not drawn into the work room.

(4) Processes involving the steaming into or around any vessel containing nitro or amino compounds or its raw materials shall be carried out in such a manner that the steam or vapour is effectively prevented to be blown back into the working atmosphere.

(5) Suitable antidotes such as methylene blue injections shall always be available at designated places of work for use during emergency involving the poisoning with nitro or amino compounds.

## **2. Special precautions for `chrome processes –**

(1) Grinding and sieving of raw materials in chrome processes shall be carried on in such a manner and under such condition as to secure effective separation from any other processes and under an efficient exhaust draught.

(2) There shall be washing facilities located very near to places where wet chrome processes such as leaching, acidification, sulphate settling, evaporation, crystallisation, centrifugation or packing are carried out, to enable quick washing of affected parts of body with running water.

(3) Weekly inspection of hand and feet of all persons employed in chrome process shall be done by a qualified nurse and record of such inspections shall be maintained in a form approved by the Chief Inspector-cum-Facilitator.

(4) There shall be always available at designated places of work suitable ointment such as glycerine, Vaseline, etc. And water proof plaster in a separate box readily accessible to the workers so as to protect against perforation of nasal septum.

## **3. Special precautions for processes carried out in all glass vessels –**

(1) Processes and chemical reactions such as manufacture of vinyl chloride,



benzyl chloride etc. Which are required to be carried out in all glass vessels shall have suitable means like substantial wire mesh covering to protect persons working nearby in the event of breakage of glass vessel.

(2) Any spillage or emission of vapour from the all glass vessel due to breakage, shall be immediately inactivated or rendered innocuous by suitable means such as dilution with water or suitable solvents so as to avoid the risks of fire or explosion or health hazards.

**4. Special precautions for processes involving chlorate manufacture –**

(1) Crystallisation, grinding or packing of chlorate shall not be done in a place used for any other purpose and such places shall have hard, smooth and impervious surface made of non-combustible material. The place shall be thoroughly cleaned daily.

(2) The personal protective equipment likes overall, etc. Provided for the chlorate workers shall not be taken from the place of work and they shall be thoroughly cleaned daily.

(3) Adequate quantity of water shall be available near the place of chlorate process for use during fire emergency.

(4) Wooden vessels shall not be used for the crystallisation of chlorate or to contain crystallised ground chlorate.

**5. Special precautions in the use of plant and equipment made from reinforced plastics –**

(1) All plant and equipment shall conform to appropriate Indian or any other National Standard.

(2) Care shall be taken during storage, transport, handling and installation of plant and equipment to avoid accidental damage.

(3) All plant and equipment shall be installed in such a way as to ensure that loads are distributed as intended in design or as per the recommendations of the manufacture.

(4) All pipe work shall be supported so that total loads local to the branches on the vessel or tank do not exceed their design values.

(5) After erection all plant and equipment shall be subjected to a pressure test followed by a thorough examination by a competent person. The test and examination shall be as per relevant Standard. A certificate of test and

examination by a competent person shall be obtained and kept available at site.

(6) All plant and equipment shall be subjected to periodical test and examination and record maintained as per Paragraph 15 in Part II of this Schedule

(7) Plant and equipment during their use shall not be subjected to over filling or overloading beyond rated capacity.

## PART VI

### Medical Requirements

**1. Decontamination facilities** – In all places where toxic substances are used in processes listed in Appendix `A' the following provisions shall be made to meet an emergency:

(a) fully equipped first aid box;

(b) readily accessible means of drenching with water persons, parts of body of persons, and clothing of persons who have been contaminated with such toxic and corrosive substances, and such means shall be as shown in the Table below:-

No. of persons employed at any time	No. of drenching showers
Upto 50 persons	2
Between 51 to 100	3
101 to 200	3 + 1 for every 50 persons thereafter
201 to 400	5 + 1 for every 100 persons thereafter
401 and above	7 + 1 for every 200 persons thereafter

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

**2. Occupational health centre** – In all the factories carrying out processes covered in Appendix `A' there shall be provided and maintained in good order an occupational health centre with facilities as per scale laid down hereunder

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(1) For factories employing up to fifty workers –

(a) the services of a qualified medical practitioner hereinafter known as Factory Medical Officer, available on a retainer ship basis, in his notified clinic near to the factory for seeking medical help during emergency. He will also carry out the pre-employment and periodical medical examinations as stipulated in paragraph 4 of this Part.

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

(c) A fully equipped first aid box.

(2) For factories employing 51 to 200 workers –

(a) The occupational health centre shall have a room having a minimum floor area of 15 sq.m., with floors and walls made of smooth, hard and impervious surface and shall be adequately illuminated, ventilated and equipped.

(b) A part-time Medical Officer will be in over all charge of the Centre who shall visit the factory minimum twice in a week and whose services shall be readily available during emergencies.

(c) There shall be one qualified and trained dresser-cum-compounder on duty throughout the working period.

(d) A fully equipped first aid box.

(3) For factories employing above 200 workers –

(a) There shall be one full-time Factory Medical Officer for factories employing upto 500 workers and one more medical officer for every 1000 workers or part thereof.

(b) The occupational health centre in this case shall have a minimum of 2 rooms each having a minimum floor area of 15 sq.m. with floors and walls made of smooth, hard and impervious surface and shall be adequately illuminated, ventilated and equipped.

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

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

**3. Ambulance van –**

(1) In every factory carrying out processes covered in Appendix `A`, there shall be provided and maintained in good condition, a suitably constructed and fully equipped ambulance van as per Appendix `C` manned by a full-time driver-cum mechanic and a helper, trained in first aid for the purposes of transportation of serious cases of accidents or sickness unless arrangements for procuring such facility at short notice during emergencies have been made with the nearby hospital or other places. The ambulance van shall not be used for any purpose other than the purpose stipulated herein and will always be available near the Occupational Health Centre.

(2) The relaxation to procure Ambulance Van from nearby places provided for in sub para (1) above will not be applicable to factories employing more than 500 workers.

**4. Medical examination –**

(1) Workers employed in processes covered in Appendix `A` shall be medically examined by Medical Officer in the following manner –

- i. Once before employment, to ascertain physical suitability of the person to do the particular job;
- ii. Once in a period of 6 months, to ascertain the health status of the worker, and
- iii. The details of pre-employment and periodical medical examinations carried out as aforesaid shall be recorded in the prescribed Form-46 and 47.

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

Provided that the Medical officer on his own may examine any other worker

whom he feels necessary to be examined for ascertaining the suitability of his employment in the process covered in Appendix `A' or for ascertaining the health status of any other worker and his opinion shall be final.

(3) No person shall be newly appointed without the Certificate of Fitness granted by the Medical Officer. If the Medical Officer declares a person unfit for being appointed to work in the process covered in Appendix `A', such person shall have a right of appeal to the Medical officer, whose opinion shall be final in this regard.

(4) The worker suspended from the process owing to the circumstances covered in sub-paragraph (2) shall be employed again in the same process only after obtaining the Fitness Certificate from the Medical officer and after making entries to that effect in the health register.

## **PART VII**

### **Additional Welfare Amenities**

#### **1. Washing facilities –**

(1) There shall be provided and maintained in every factory for the use of all the workers taps for washing, at the rate of one every 15 persons including liquid soap in a container with tilting arrangements and nail brushes or other suitable means for effective cleaning. Such facilities shall be conveniently accessible and shall be kept in a clean and hygienic condition.

(2) If washing facilities as required above are provided for women, such facilities shall be separate for them and adequate privacy at all times shall be ensured in such facilities.

#### **2. Mess room facilities –**

(1) The occupier of all the factories carrying out processes covered in Appendix `A' and employing 50 workers or more, shall provide for all the workers working in a shift mess room facilities which are well ventilated and provided with tables and sitting facilities along with the provision of cold and hygienic drinking water facilities.

(2) Such facilities shall include suitable arrangements for cleaning and washing and shall be maintained in a clean and hygienic condition.

#### **3. Cloakroom facilities –**

(1) The occupier of every factory carrying out any process covered in Appendix 'A' shall provide for all the workers employed in the process cloak room facilities with lockers. Each worker shall be provided with two lockers, one for work clothing and another separately for personal clothing and the lockers should be such as to enable the keeping of the clothing in a hanging position.

(2) The cloak room facilities provided in pursuance of sub-para (1) shall be located as far as possible near to the facilities provided for washing in pursuance of para 1(1). If it is not possible to locate the washing facilities the cloakroom facilities shall have adequate and suitable arrangements for cleaning & washing.

#### **4. Special bathing facilities –**

(1) The occupier of any factory carrying out the process covered under Appendix 'B' shall provide special bathing facilities for all the workers employed and such facilities shall be provided at the rate of 1 for 25 workers or less workers than 25 workers, and shall be maintained in a clean and hygienic condition.

(2) The occupier shall insist all the workers employed in the processes covered in Appendix 'B' to take bath after the completion of the day's or shift work using the bathing facilities so provided and shall also effectively prevent such of those workers taking bath in any place other than the bathing facilities.

(3) Notwithstanding anything contained in sub-para (1) above, the Chief Inspector-cum-Facilitator may require in writing the occupier of any factory carrying out any other process for which his opinion bathing facilities are essential from the health point of view, to provide special bathing facilities.

### **PART VIII**

#### **1. Duties of workers –**

(1) Every worker employed in the processes covered in Appendix 'A' and Appendix 'B' shall not make safety device or appliance or any guarding or fencing arrangement, inoperative or defective and shall report the defective condition of the aforesaid arrangements as soon as he is aware of any such defect.

(2) Before commencing any work, all workers employed in processes covered in Appendix 'A' shall check their workplace as well as the machinery, equipment or appliance used in the processes and report any mal-function or defect immediately to the supervisor or any responsible person of the management.

(3) All workers shall co-operate in all respects with the management while carrying out any work or any emergency duty assigned to them in pursuance of this schedule and shall always use all the personal protective equipment issued to them in a careful manner.

(4) All workers employed in the processes covered in Appendix `A` or Appendix `B` shall not smoke in the process area or storage area. If special facilities are provided by the management only such facilities should be used.

(5) All workers employed in the processes covered in Appendix `A` shall not remain in an unauthorised place or carry out unauthorised work or improvise any arrangement or adopt short cut method or misuse any of the facilities provided in pursuance of the Schedule, in such a manner as to cause risk to themselves as well as or to others employed.

(6) The workers shall not refuse undergoing medical examination as required under these rules.

#### **PART IX**

##### **Restrictions on the employment of Women and Adolescent**

(1) The Chief Inspector-cum-Facilitator may by an order in writing, restrict or prohibit the employment of women and adolescent, in any of the processes covered in Appendix `A` of this schedule on considerations of health and safety of women and young persons.

(2) Such persons who are restricted or prohibited from working in the process due to the order issued in pursuance of sub-para (1) above shall be provided with alternate work which is not detrimental to their health or safety.

#### **PART X**

##### **Exemptions**

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

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**Appendix `A`**

Any works or that part of works in which –

(a) the manufacture, manipulation or recovery of any of the following is carried on :-

(i) sodium, potassium, iron, aluminium, cobalt, nickel, copper, arsenic, antimony, chromium, zinc, selenium, magnesium, cadmium, mercury, beryllium and their organic and inorganic salts, alloys, oxides and hydroxides;

(ii) ammonia, ammonium hydroxide and salts of ammonium;

(iii) the organic or inorganic compounds of sulphurous, sulphuric, nitric, nitrous, hydrochloric, hydrofluoric, hydriodic, hydro sulphuric, hydrobromic, boric;

(iv) cyanogens compounds, cyanide compounds, cyanate compounds;

(v) phosphorous and its compounds other than organo phosphorus insecticides.

(vi) chlorine

(b) hydrogen sulphide is evolved by the decomposition of metallic sulphides, or hydrogen sulphide is used in the production of such sulphides;

(c) bleaching powder is manufactured or chlorine gas is produced in chlor-alkali plants;

(d) (i) gas tar or coal tar or bitumen or shale oil asphalt or any residue of such tar is distilled or is used in any process of chemicals manufacture;

(ii) tar based synthetic colouring matters or their intermediates are produced;

(e) nitric acid is used in the manufacture of nitro compounds;

(f) explosives are produced with the use of nitro compounds;

(g) aliphatic or aromatic compounds or their metallic and non-metallic derivatives or substituted derivatives, such as chloroform, ethylene glycol, formaldehyde, benzyl chloride, phenol, methyl ethyl ketone peroxide, cobalt carbonyl, tungsten carbide etc. Are manufactured or recovered.

**Appendix `B`**

**Concerning Special Bathing Accommodation in pursuance of Para 4  
of Part IV**

1. Nitro or amido processes



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

#### **Appendix `C`**

Ambulance should have the following equipment :

##### *General :*

- An wheeled stretcher with folding and adjusting devices; Head of the stretcher must be capable of being tilted upward;
- Fixed suction unit with equipment;
- Fixed oxygen supply with equipment;
- Pillow with case;
- Sheets;
- Blankets;
- Towels;
- Emesis bag;
- Bed pan;
- Urinal;
- Glass

##### *Safety equipment :*

- Flares with life of 30 minutes
- Flood lights;
- Flash lights;

- Fire extinguisher dry powder type;
- Insulated gauntlets.

**Emergency care equipment :-**

***Resuscitation :***

- Portable suction unit;
- Portable oxygen unit;
- Bag-valve-mask, hand operated artificial ventilation unit;
- Airways;
- Mouth gags;
- Tracheostomy adapters;
- Short spine board;
- I.V. Fluids with administration unit;
- B.P. manometer;
- Cugg;
- Stethoscope

***Immobilisation***

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

***Dressings :***

- Gauze pads – 4” x 4” ;
- Universal dressing 10” x 36” ;
- Roll of aluminium foils;
- Soft roller bandages 6” x 5 yards;
- Adhesive tape in 3” roll;
- Safety pins;
- Bandage sheets;
- Burn sheet.

***Poisoning :***

- 
- Syrup of Ipecac; } } Pre packeted in doses
  - Activated charcoal; }
  - Snake bite kit;
  - Drinking water.

***Emergency Medicines:***

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

**SCHEDULE – XII****MANUFACTURE OF POTTERY**

**1 Definitions** – For the purposes of this schedule –

- (a) “pottery” includes earthenware, stoneware, porcelain, china tiles, and any other articles made from such clay or from a mixture containing clay and other materials such as quartz, flint, feldspar, and gypsum;
- (b) “efficient exhaust draught” means localised ventilation effected by mechanical or other means for removal of dust or fume so as to prevent it from escaping into air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove effectively dust or fume generated at the point where dust or fume originates;
- (c) “fettling” includes scalloping, towing, sand papering, sand sticking, brushing or any other process of cleaning of pottery ware in which dust is given off;
- (d) “leadless glaze” means a glaze which does not contain more than one per cent of its dry weight, of a lead compound calculated as lead monoxide;
- (e) “low solubility glaze” means a glaze which does not yield to dilute hydrochloric acid more than five per cent of its dry weight, of a soluble lead compound calculated as lead monoxide when determined in the manner described below :

A weighed quantity of the material which has been dried at 100 degrees centigrade and thoroughly mixed shall be continuously shaken for one hour at the common temperature with 1000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 per cent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphide;

- (f) “ground or powdered flint or quartz” does not include natural sands; and
- (g) “potter’s shop includes all places where pottery is formed by pressing or by any other process and all places where shaping, fettling or other treatment of pottery articles prior to placing for the biscuit fire is carried on.

**2. Efficient exhaust draught** – (1) The following processes shall not be carried on without the use of an efficient exhaust draught –

- (a) all processes involving the manipulation or use of a dry and unfritted lead compound;
- (b) the fettling operations 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;
- (c) the shifting of clay dust or any other material for making tiles or other articles or other articles by pressure, except where –
  - (i) this is done in a machine so enclosed as to effectually prevent the escape of dust; or
  - (ii) the material to be shifted is so damp that no dust can be given off;
- (d) the pressing of tiles from clay dust, an exhaust opening being connected with each press, and pressing from clay dust of articles other than tiles, unless the material is so damp that no dust is given off;
- (e) the fettling of tiles made from clay dust by pressure, except where the fettling is done wholly on, or with, damp material, and fettling of other articles made from clay dust, unless the material is so damp that no dust is given off;
- (f) the process of loading and unloading of saggars where handling and manipulation of ground and powdered flint, quartz, alumina or other materials are involved;
- (g) the brushing of earthenware biscuit, unless the process is carried on in a room provided with efficient general mechanical ventilation or other ventilation which is certified by the Inspector-cum-Facilitator as adequate having regard to all the circumstances of the case;
- (h) fettling of biscuit ware which has been fired in powdered flint or quartz except where this is done in machines so enclosed as to effectually prevent the escape of dust;

- 
- (i) Ware cleaning after the application of glaze by dipping or other process;
  - (j) crushing and dry grinding of materials for pottery bodies and saggars, unless carried on in machines so enclosed as to effectively prevent the escape of dust or is so damp that no dust can be given off;
  - (k) sieving or manipulation of powdered flint, quartz, clay grog or mixture of these materials unless it is so damp that no dust can be given off;
  - (l) grinding of tiles on a power driven wheel unless an efficient water spray is used on the wheel;
  - (m) lifting and conveying of materials by elevators and conveyors unless they are effectively enclosed and so arranged as to prevent escape of dust into the air in or near to any place in which persons are employed;
  - (n) preparation or weighing out of flow material, lawning of dry colours, colour dusting and colour blowing;
  - (o) mould making unless the bins or similar receptacles used for holding plaster of paris are provided with suitable covers; and
  - (p) manipulation of calcined material unless the material has been made and remains so wet that no dust is given off.
- (2) (i) All equipment for the extraction or suppression of dust shall at least once in every six months be examined and tested by competent person, and any defect disclosed by such examination and test shall be rectified as soon as practicable.
- (ii) A register containing particulars of such examination and tests shall be kept in Form 50

**3. Carrying of process-** Each of the following processes shall be carried on in such a manner and under conditions so as to secure effectual separation from one another and from another processes;

- (a) crushing and dry grinding or sieving of materials, fettling, pressing of tiles, drying of clay and green ware, loading and unloading saggars
- (b) all processes involving use of dry lead compound

**4 Use of glaze** – No glaze which is not a leadless glaze or a low solubility glaze shall be used in a factory in which pottery is manufactured.

**5. Prohibition relating to pregnant women and Adolescent** - No pregnant

woman or adolescent shall be employed or permitted to work in any of the operations specified in clause 2 or at any place where such operations are carried on.

**6. Potter's wheel.** – The potter's wheel (Jolly and Jigger) shall be provided with screens or so constructed as to prevent clay scrapings being thrown off beyond the wheel.

**7. Measures to be taken to prevent dust flowing:-**

(1) All practical measures shall be taken by damping or otherwise to prevent dust arising during cleaning of floors.

(2) Damp saw-dust or other suitable material shall be used to render the moist method effective in preventing dust rising into the air during the cleaning process which shall be carried out after work has ceased.

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

**9. Medical examination by Medical officer –**

(1) Every worker employed in any process mentioned under paragraph 3, shall be examined by a Medical officer within 15 days of his first employment. Such examination shall include tests for lead in urine and blood, ALA in urine, haemoglobin content, stippling of cells and. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) All persons employed in any of the processes included under subparagraphs 3(a) and 3(n) shall be examined by a Medical officer once in every 3 calendar months. Those employed in any other processes mentioned in the remaining sub-paragraphs of paragraph 3 shall be examined by a Medical officer one in every 12 calendar months. Such examinations in respect of all the workers shall include all the tests as specified in sub-paragraph (1) except chest X-ray which will be once in 3 years.

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried

out under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator. If at any time the Medical officer is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance there in would involve special danger to the health of the worker he shall make a record of his findings in the said Certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he fully is incapacitated in the opinion of the Medical officer, 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 Medical officer, after further examination, again certifies him fit for employment in those processes.

#### **10. Protective equipment –**

(1) The occupier shall provide and maintain suitable overalls and hand coverings for all persons employed in process included under paragraph 3.

(2) The occupier shall provide and maintain suitable aprons of a of a waterproof or similar material, which can be sponged daily, for the use of the dippers, dippers assistants, throwers, jolly workers, casters, mould makers and filter press and pug mill workers.

(3) Aprons provided in pursuance of paragraph 10(2) shall be thoroughly cleaned daily by the wearers by sponging or other wet process. All overalls and head coverings shall be washed, cleaned and mended at least once a week, and this washing, cleaning or mending shall be provided for by the occupier.

(4) No person shall be allowed to work in emptying sacks of dust materials, weighing out and mixing of dusty materials and charging of ball mills and plungers without wearing a suitable and efficient dust respirator.

#### **11. Washing facilities –**

(1) The occupier shall provide and maintain, in a clean state and in good

repair for the use of all persons employed in any of the processes specified in paragraph 3 –

(a) a wash place under cover, with either –

(i) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow of at least one foot 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 minutes; 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 1.20 metres apart; and

(b) a sufficient supply of clean towels made of suitable materials changed daily, with a sufficient supply of soap and nail brushes.

**12. Time allowed for washing –** Before each meal and before the end of the day's work, at least ten minutes, in addition to the regular meal times, shall be allowed for washing to each person employed in any of the processes mentioned in paragraph 2.

**13. 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 0.93 square meter per head and furnished with –

(a) a sufficient number of tables and chairs or benches with back rest;

(b) arrangements for washing utensils;

(c) adequate means for warming food; and

(d) adequate quantity of drinking water.

(2) The room shall be adequately ventilated by the circulation of fresh air and placed under the charge of a responsible person and shall be kept clean.

**14. Food, drinks, etc. Prohibited in workrooms –** No food, drink, pan and supari or tobacco shall be brought into, or consumed by any worker in any workroom in which any of the processes mentioned in paragraph 3 are carried on and no person shall remain in any such room during intervals for meals or rest.



**15. Cloakrooms etc.** – There shall be provided and maintained for the use of all persons employed in any of the processes mentioned in paragraph 2.

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

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

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

**17. Exemption** – If in respect of any factory the Chief Inspector-cum-Facilitator is satisfied that all or any of the provisions of this schedule are not necessary for the protection of the persons employed in such factory, he may by a certificate in writing exempt such factory from all or any of such provisions, subject to such conditions as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-Facilitator without assigning any reasons.

### SCHEDULE – XIII

#### COMPRESSION OF OXYGEN AND HYDROGEN PRODUCED BY ELECTROLYSIS OF WATER

**1. Location of electrolyte plant** – The room in which electrolysis plant is installed shall be separate from the plant for storing and compressing the oxygen and hydrogen and also the electric generator room.

**2. Testing of purity** – (1) The purity of oxygen and hydrogen shall be tested by a competent person at least once in every shift at the following posts:-

- (a) in the electrolysis room;
- (b) at the gas holder inlet; and
- (c) at the suction and of the compressor.

(2) The purity figures shall be entered in a register and signed by the persons carrying out such test:

Provided, however, that if the electrolysis plant is fitted with automatic recorder of purity of oxygen and hydrogen with alarm lights, it shall be sufficient if the purity of gases is tested at the suction and of the compressor only.

**3. Restriction as to the compression** – The oxygen and hydrogen gases shall not be compressed if their purity as determined under paragraph 2 above falls below 98% at any time.

**4. Provision of negative pressure switch** – In addition to the limit switch in the gasholder, a sensitive negative pressure switch shall be provided in or adjacent to the suction main for hydrogen close to the gas holder and between the gas holder and the hydrogen compressor to switch off the compressor motor in the event of the gas holder being emptied to the extent as to cause vacuum.

**5. Switch for gas holder** – The bell of any gas holder shall not be permitted to go within the 30 centimetres of its lowest position when empty and a limit switch shall be fitted to the gas holder in such a manner as to switch off the compressor motor when the limit is reached.

**6. Purity of caustic soda** – The water, caustic soda and caustic potash used for making lye shall be of standards suitable for electrolysis.

**7. Precautions against reversal of polarity** – Electrical connections at the electrolyser cells and at the electric generator terminals shall be so constructed as to preclude the possibility of wrong connections leading to the reversal of polarity and in addition an automatic device shall be provided to cut off power in the event of reversal of polarity owing to wrong connections either at the switch board or at the electric generator terminals.

**8. Colouring of gas pipes** – Oxygen and hydrogen gas pipes shall be painted with distinguishing colours. Whenever an Hydrogen pipe is opened for repair or any other work, on reconnection the pipe shall be purged of all air before hydrogen is allowed to pass through that pipe.

**9. Use of flameproof fittings** – All electrical wiring and apparatus in the electrolyser room shall be of flameproof construction or enclosed in flameproof fittings and no naked light or flame shall be allowed to be taken either in the electrolyser room or where compression and filling of the gases is carried on and such warning notices shall be exhibited in prominent places.

**10. Prohibition of hot work** – No part of the electrolyser plant and the gas holders and compressor shall be subjected to welding, brazing, soldering or cutting until steps have been taken to remove any explosive substance from that part and render the part safe for such operations and after the completion of such operations no explosive substance shall be allowed to enter that part until the metal has cooled sufficiently to prevent risk of explosion.

**11. Repair, etc. to be done under supervision** – No work or operations, repair or maintenance shall be undertaken except under the direct supervision of a person who, by his training, experience and knowledge of the necessary precautions against risk of explosion is competent to supervise such work. No electric generator after erection or repairs shall be switched on/the electrolyzers unless the same is certified by the competent persons under whose direct supervision erection or repairs are carried on to be in a safe condition and the terminals have been checked for the polarity as required by paragraph 7.

**12. Checking of plant** – Every part of the electrolysis plant and the gas holders and compressor shall have a regular schedule of overhaul and checking and every defect noticed shall be rectified forthwith.

#### SCHEDULE – XIV

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

**1. Application** – This schedule shall apply to all factories or parts of factories in which manipulation of stone or any other material containing free silica is carried on.

**2. Definitions-** For the purpose of this Schedule –

(a) “manipulation” means crushing, breaking, chipping, dressing, grinding, sieving, mixing, grading or handling of stone or any other material containing free silica or any other operation involving such stone or material;

(b) “Stone or any other material containing free silica” means a stone or any other solid material containing not less than 5% by weight of free silica.

**3. Precautions in manipulation-** No manipulation shall be carried out in a factory or part of a factory unless one or more of the following measures, namely

- (a) damping the stone or other material being processed,
- (b) providing water spray,
- (c) enclosing the process,
- (d) isolating the process, and
- (e) providing localised exhaust ventilation are adopted so as to effectively control the dust in any place in the factory where any person is employed, at a level equal to or below the maximum permissible level for silica dust as laid down in Table 2 appended to Rule-131

Provided that such measures as above said are not necessary if the process or operation itself is such that the level of dust created and prevailing does not exceed the permissible level referred to above.

#### **4. Maintenance of floors-**

- (1) All floors or places where fine dust is likely to settle on and whereon any person has to work or pass shall be of impervious material and maintained in such condition that they can be thoroughly cleaned by a moist method or any other method which would prevent dust being airborne in the process of cleaning.
- (2) The surface of every floor of every work room or place where any work is carried on or where any person has to pass during the course of his work, shall be cleansed of dust once at least during each shift after being sprayed with water or by any other suitable method so as to prevent dust being airborne in the process of cleaning.

**5. Prohibition relating Adolescent** - No adolescent shall be employed or permitted to work in any of the operations involving manipulation or at any place where such operations are carried out.

#### **6. Medical examination by Medical officer –**

- (1) Every worker employed in the processes specified in paragraph 1, shall be examined by a Medical officer within 15 days of his first employment. Such medical examination shall include tests for lead in urine and blood. ALA in urine, haemoglobin content, stippling of cells and steadiness test. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in the said processes shall be re-examined by a Medical officer at least once in every twelve months. Such re-examination shall, wherever the Medical officer considers appropriate, include all the tests as specified in subparagraph(1) except chest X-ray which will be once in 3 years.

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) If at any time the Medical officer is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker he shall make a record of his findings in the said Certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he fully is incapacitated in the opinion of the Medical officer, in which case the person affected shall be suitably rehabilitated.

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

**8. Exemptions** – If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or in frequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for protection of the workers in the factory, the Chief Inspector-cum-Facilitator may by a certificate in writing, which he may in his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

**SCHEDULE – XV**

**HANDLING AND PROCESSING OF ASBESTOS,  
MANUFACTURE OF ANY ARTICLE OF ASBESTOS AND ANY  
OTHER PROCESS OF MANUFACTURE OR OTHERWISE IN  
WHICH ASBESTOS IS USED IN ANY  
FORM.**

**1. Application** – This schedule shall apply to all factories or parts of factories in which any of the following processes is carried on :-

- (a) breaking, crushing, disintegrating, opening, grinding, mixing or sieving of asbestos and any other processes involving handling and manipulation of asbestos incidental thereto;
- (b) all processes in the manufacture of asbestos textiles including preparatory and finishing processes;
- (c) making of insulation slabs or sections, composed wholly or partly of asbestos, and processes incidental thereto;
- (d) making or repairing of insulating mattresses, composed wholly or partly of asbestos, and processes incidental thereto;
- (e) manufacture of asbestos cardboard and paper;
- (f) manufacture of asbestos cement goods;
- (g) application of asbestos by spray method;
- (h) sawing, grinding, turning, abrading and polishing in dry state of articles composed wholly or partly of asbestos;
- (i) cleaning of any room, vessel, chamber, fixture or appliance for the collection of asbestos dust; and
- (j) Any other processes in which asbestos dust is given off into the work environment.

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

- (a) “asbestos” means any fibrous silicate mineral and any admixture containing actionlite, amosite, anthophyllite, dhrysotile, crocidolite, tremolite or any mixture thereof, whether crude, crushed or opened;
- (b) “asbestos textiles” means yarn or cloth composed of asbestos or asbestos

mixed with any other material;

(c) “approved” means approved for the time being in writing by the Chief Inspector-cum-Facilitator;

(d) “breathing apparatus” means a helmet or face piece with necessary connection by means of which a person using it breathes air free from dust, or any other approved apparatus;

(e) “Efficient exhaust draught” means a localised ventilation by mechanical means for the removal of dust so as to prevent dust from escaping into air of any place in which work is carried on. No draught shall be deemed to be efficient which fails to control dust produced at the point where such dust originates;

(f) “preparing” means crushing, disintegrating, and any other processes in or incidental to the opening of asbestos;

(g) “Protective clothing” means overalls and head covering, which (in either case) will when worn exclude asbestos dust.

**3. Tools and equipment** – Any tools or equipment used in processes to which this schedule applies shall be such that they do not create asbestos dust above the permissible limit or are equipped with efficient exhaust draught.

**4. Exhaust draught –**

(1) An efficient exhaust draught shall be provided and maintained to control dust from the following processes and machines:

(a) manufacture and conveying machinery namely –

(i) preparing, grinding, or dry mixing machines;

(ii) carding, card waste and ring spinning machines, and looms;

(iii) machines or other plant fed with asbestos;

(iv) machines used for the sawing, grinding, turning, drilling, abrading or polishing; in the dry state, of articles composed wholly or partly of asbestos;

(b) cleaning, and grinding of the cylinders or other parts of a carding machine;

(c) chambers, hoppers or other structures into which loose asbestos is delivered or passes;

(d) work-benches for asbestos waste sorting or for other manipulation or asbestos by hand;

(e) workplaces at which the filling or emptying of sacks, skips or other portable containers, weighing or other process incidental thereto which is effected by hand, is carried on;

(f) sack cleaning machines;

(g) mixing and blending of asbestos by hand; and

(h) any other process in which dust is given off into the work environment.

(2) Exhaust ventilation equipment provided in accordance with sub-paragraph (1) shall, while any work of maintenance or repair to the machinery, apparatus or other plant or equipment in connection with which it is provided is being carried on, be kept in use so as to produce an exhaust draught which prevents the entry of asbestos dust into the air of any work place.

(3) Arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air of any workroom.

(4) The asbestos bearing dust removed from any workroom by the exhaust system shall be collected in suitable receptacles or filter bags which shall be isolated from all work areas.

#### **5. Testing and examination of ventilating systems –**

(1) All ventilating systems used for the purpose of extracting or suppressing dust as required by this schedule shall be examined and inspected once every week by 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.

(2) A register in Form-49 containing particulars of such examination and tests and the state of the plant and the repairs or alternations (if any) found to be necessary shall be kept and shall be available for inspection by an Inspector-cum-Facilitator.

**6. Segregation in case of certain process –** Mixing or blending of asbestos by the hand, or making or repairing of insulating mattresses composed wholly or partly of asbestos shall not be carried on in any room in which any other work is done.

#### **7. Storage and distribution of loose asbestos –**

All loose asbestos shall while not in use be kept in suitable closed receptacles



which prevent the escape of asbestos dust therefrom and such asbestos shall not be distributed in the factory except in such receptacles or in totally enclosed system of conveyance.

#### **8. Asbestos sacks**

(1) All sacks used as receptacles for the purpose of transport of asbestos within the factory shall be constructed of impermeable materials and shall be kept in good repair.

(2) A sack which has contained asbestos shall not be cleaned by hand beating but by a machine, complying with paragraph 4.

#### **9. Maintenance of floors and workplaces –**

(1) In every room in which any of the requirements of this schedule apply –

(a) the floors, work-benches, machinery and plant shall be kept in a clean state and free from asbestos debris and suitable arrangements shall be made for the storage of asbestos not immediately required for use; and

(b) the floors shall be kept free from any materials, plant or other articles not immediately required for the work carried on in the room, which would obstruct the proper cleaning of the floor.

(2) The cleaning as mentioned in sub-rule (1) shall so far as is practicable, as carried out by means of vacuum cleaning equipment so designed and constructed and so used that asbestos dust neither escapes nor is discharged into the air of any work place.

(3) When the cleaning is done by any method other than that mentioned in subparagraph.

(2), the persons doing cleaning work and any other person employed in that room shall be provided with respiratory protective equipment and protective clothing.

(4) The vacuum cleaning equipment used in accordance with provisions of subparagraph(2), shall be properly maintained and after each cleaning operation, its surfaces kept in a clean state and free from asbestos waste and dust.

(5) Asbestos waste shall not be permitted to remain on the floors or other surfaces at the work place at the end of the working shift and shall be transferred without delay to suitable receptacles. Any spillage of asbestos waste occurring

during the course of the work at any time shall be removed and transferred to the receptacles maintained for the purpose without delay.

**10. Breathing apparatus and protective clothing –**

(1) An approved breathing apparatus and protective clothing shall be provided and maintained in good conditions for use of every person employed –

- (a) in chambers containing loose asbestos;
- (b) in cleaning, dust settling or filtering chambers of apparatus;
- (c) in cleaning the cylinders, including the defer cylinders, or other parts of a carding machine by means of hand-strikes;
- (d) in filling, beating , or levelling in the manufacture or repair of insulating mattresses; and
- (e) in any other operation or circumstances in which it is impracticable to adopt technical means to control asbestos dust in the work environment within the permissible limit.

(2) Suitable accommodation in conveniently accessible position shall be provided for the use of persons when putting on or taking off breathing apparatus and protective clothing provided in accordance with this rule and for the storage of such apparatus and clothing when not in use.

(3) All breathing apparatus and protective clothing washing not in use shall be stored in the accommodation provided in accordance with sub-rule (2) above.

(4) All protective clothing in use shall be de-dusted under an efficient exhaust draught or by vacuum cleaning and shall be washed at suitable intervals. The cleaning schedule and procedure should be such as to ensure the efficiency in protective the wearer.

(5) All breathing apparatus shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.

(6) A record of the cleaning and maintenance and of the condition of the breathing apparatus shall be maintained in a register provided for that purpose which shall be readily available for inspection by an Inspector-cum-Facilitator.

(7) No person shall be employed to perform any work specified in sub-paragraph (1) for which breathing apparatus is necessary to be provided under that sub-paragraph unless he has been fully instructed in the proper use of that equipment.

(8) 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.

**11. Separate accommodation for personal clothing** – A separate accommodation shall be provided in a conveniently accessible position for all persons employed in operation to which this schedule applies for storing of personal clothing. This should be separated from the accommodation provided under sub-paragraph (2) of paragraph 10 to prevent contamination of personal clothing.

**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 processes covered by the schedule, adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 15 persons employed. The washing places shall have standpipes placed at intervals of not less than one metre.

(2) Not less than one half of the total number of washing places shall be provided with bathrooms.

(3) Sufficient supply of clean towels made of suitable material shall be provided:

Provided that such towels shall be supplied individually for each worker if so ordered by the Inspector-cum-Facilitator.

(4) Sufficient supply of soap and nail brushes shall be provided.

**13. Mess room –**

(1) There shall be provided and maintained for the use of all worker employed in the factory covered by this schedule, remaining on the premises during the rest intervals, a suitable mess room which shall be furnished with:-

(a) sufficient tables and benches with back rest, and

(b) adequate means for warming food.

(2) The mess room shall be placed under the charge of a responsible person and shall be kept clean.

**14. Prohibition of employment of Adolescent** – No adolescent shall be employed in any of the process covered by this schedule.

**15. Prohibition relating to smoking** – No person shall smoke in any area where processes covered by this schedule are carried on. A notice in the language understood by majority of the workers shall be posted in the plant prohibiting smoking at such areas.

**16. Cautionary notices** –

(1) Cautionary notices shall be displayed at the approaches and along the perimeter of every asbestos processing area to warn all persons regarding –

- (a) hazards to health from asbestos dust,
- (b) need to use appropriate protective equipment,
- (c) Prohibition of entry to unauthorised persons, or authorised persons but without protective equipment.

(2) Such notices shall be in the language understood by the majority of the workers.

**17. Air monitoring** – To ensure the effectiveness of the control measures, monitoring of asbestos fibre in air shall be carried out once at least in every shift and the record of the results so obtained shall be entered in a register specially maintained for the purpose.

**18. Medical examination by Medical officer** –

(1) Every worker employed in the processes specified in paragraph 1 shall be examined by a Medical officer within 15 days of his first employment. Such examination shall include pulmonary function test, tests for detecting asbestos fibers in sputum and chest X-ray. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in the process referred to sub-paragraph (1) shall be re-examined by a Medical officer at least once in every twelve calendar months. Such examination shall, wherever the Medical officer considers appropriate, include all the tests specified in sub-paragraph (1) except chest X-ray which will be carried out once in 3 years.

(3) The Medical officer after examining a worker shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried

out shall be entered in the certificate and the certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) If at any time the Medical officer is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit to work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Medical officer, in which case the person affected shall be suitably rehabilitated.

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

**20. 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, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

## **SCHEDULE – XVI**

### **HANDLING OR MANIPULATION OF CORROSIVE SUBSTANCES**

**1. Definitions** – For the purposes of this schedule –

- (a) “corrosive operation” means an operation of manufacturing, storing, handling processing, packing, or using any corrosive substance in a factory; and
- (b) “corrosive substance” includes sulphuric acid, nitric acid, hydrochloric acid,

hydrofluoric acid, 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 corrosive substance.

**2. Flooring** – The floor of every workroom of a factory in which corrosive operation is carried on shall be made of impervious, corrosion and fire resistance material and shall be so constructed as to prevent collection of any corrosive substance. The surface of such flooring shall be smooth and cleaned as often as necessary and maintained in a sound condition.

**3. Protective equipment-** (a) the occupier shall provide for the use of all persons employed in any corrosive operation suitable protective wear for hands and feet, suitable aprons, face shields, chemical safety goggles, and respirators. The equipment shall be maintained in good order and shall be kept in clean and hygienic condition by suitably treating to get rid of the ill effects of any absorbed chemicals and by disinfecting. The occupier shall also provide suitable protective creams and other preparations wherever necessary.

(b) The Protective equipment and preparations provided shall be used by the persons employed in any corrosive operation.

**4. Water facilities** – Where any corrosive operation is carried on, there shall be provided as close to the place of such operation as possible, a source of clean water at a height of 210 centimetres from a pipe of 1.25 centimetres diameter and fitted with a quick acting valve so that in case of injury to the worker by any corrosive substance, the injured part can be thoroughly flooded with water. Whenever necessary, in order to ensure continuous water supply, a storage tank having a minimum length, breadth and height of 210 centimetres, 120 centimetres and 60 centimetres respectively or such dimensions as are approved by the Chief Inspector-cum-Facilitator shall provided as the source of clean water.

**5. Cautionary notice** – A cautionary notice in the following form and printed in the language which majority of the workers employed understand, shall be displayed prominently close to the place where a corrosive operation is carried out and where any of the operation mentioned in clause 2 above is carried out and where it can be easily and conveniently read by the workers. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice so displayed.

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**CAUTIONARY NOTICE****DANGER**

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

Get medical attention quickly.

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**6. Transport** – (1) Corrosive substances shall not be filled, moved or carried except in containers or through pipes and when they are to be transported in containers, they shall be placed in crates of sound construction and of sufficient strength.

(2) A container with a capacity of 11.5 litres or more of a corrosive substance shall be placed in a receptacle or crate and then carried by more than one person at a height below the waist line unless a suitable rubber wheeled truck is used for the purpose.

(3) Containers for corrosive substances shall be plainly labelled.

**7. Devices for handling corrosive** – (1) Tilting, lifting or pumping arrangements shall be used for emptying jars, carboys and other containers of corrosives.

(2) Corrosive substance shall not be handled by bare hands but by means of a suitable scoop or other device.

**8. Opening of valves** – Valves fitted to containers holding a corrosive substance shall be opened with great care. If they do not work freely, they shall not be forced open. They shall be opened by a worker suitably trained for the purpose.

**9. Cleaning tanks, stills, etc.** – (1) In cleaning out or removing residues from stills or other large chambers used for holding any corrosive substance, suitable implements made of wood or other material shall be used to prevent production of arseniuretted hydrogen (arsine).

(2) Whenever it is necessary for the purpose of cleaning or other maintenance work for any worker to enter chamber, tank, vat, pit or other confined space

where a corrosive substance had been stored, all possible precautions required under rules framed under Schedule II of the Code shall be taken to ensure the worker's safety.

(3) Wherever possible, before repairs are undertaken to any part of equipment in which a corrosive substance was handled, such equipment or part thereof shall be freed of any adhering corrosive substance by adopting suitable methods.

**10. Storage** – (1) 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.

(2) Pumping or filling overhead tanks, receptacles, vats or other containers for storing corrosive substances shall be so arranged that there is no possibility of any corrosive substance overflowing and causing injury to any person.

(3) Every container having a capacity of twenty litres or more and every pipeline, valve, and fitting used for storing or carrying corrosive substances shall be thoroughly examined every year for finding out any defects, and defects so found out shall be removed forthwith. A register shall be maintained of every such examination made and shall be produced before the Inspector-cum-Facilitator whenever required.

**11. Fire extinguishers and fire fighting equipment** – An adequate number of suitable types of fire extinguishers or other stored, shall be provided. Such extinguishers or other equipment shall be regularly tested and refilled. Clear instructions as to how the extinguishers or other equipment should be used, printed in the language which majority of the workers employed understand, shall be affixed near each extinguisher or other equipment.

**12. Exemption** – If in respect of any factory on application made by the manager, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances, or the infrequency of the process or for any other reason to be recorded by him in writing, all or any of the provisions of this schedule are not necessary for the protection of the persons employed therein, he may by a certificate in writing, which he may at anytime revoke, exempt the factory from such of the provisions and subject to such conditions as he may specify therein.



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**SCHEDULE – XVII****USE OF OVENS AND DRIERS IN FACTORIES**

**1. Application-** this schedule shall apply to ovens and driers, except those used in laboratories and kitchens of any establishment and those which have a capacity below 325 litres.

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

**3. Separate electric connection-** Electric power supplied to every oven or drier shall be by means of separate circuit provided with an isolated switch.

**4. Design, construction, examination and testing-** (1) every oven or drier shall be properly designed on sound engineering practice and be of good construction, sound materials and adequate strength free from any patent defect and safe, if properly used.

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

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

**5. Safety, Ventilation-** (1) every oven or drier shall be provided with a positive and effective safety ventilation system using one or more motor driven centrifugal fans so as to dilute any mixture of air and flammable substance that

may be formed within the oven or drier and maintain the concentration of the flammable substance in the air at safe level of dilution.

(2) The safe level of dilution referred to in clause (a) shall be so as to achieve a concentration of concerned flammable material in air of not more than 25 % of its lower explosive limit;

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

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

(b) Sounds an alarm when the concentration of the flammable substance in air present in any part of oven or drier reaches a level of 50% of explosive limit

(c) Shuts down the heating system of the oven or drier automatically when the concentration of the flammable substance in air present in any part of oven or drier reaches a level of 60% of lower explosive limit, is provided to the oven or drier and maintained in the efficient working condition.

(d) No oven or drier shall be operated without its safety ventilation system working in efficient manner.

(e) no oven or drier shall be operated with a level of dilution less than what is referred in clause (b)

(f) exhaust ducts of safety ventilation system should be so designed and placed that their ducts discharge the mixture of air and flammable substance away from the workroom and not near windows or doors or other openings from where the mixture could re-enter the work room.

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

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

**6. Explosion panels** – (1) every oven or drier having an internal total space of not less than half cubic meter shall be provided with suitably design explosion panel so as to allow the release of the pressure of any possible explosion within the oven or drier through explosions vents. The area of opening of any access doors which are provided with suitable arrangements for their release in case of an explosion shall not be less than 2200 sq cm for every 1 cu m of the volume of the oven or drier. The design of the explosion panel and doors as stated above shall be such as to secure their complete release under an internal pressure of 0.25 kg/sq cm.

(2) The explosion releasing panel shall, as far as practicable, be situated on the roof of the oven or drier or at those portions of the walls where persons don't remain in connection with operation of oven or drier.

**7. Inter locking arrangement** – In each oven or drier efficient inter locking arrangement shall be provided and maintain to insure that

(a) All ventilating fans and circulating fans whose failure would adversely effect the ventilation rate of flow pattern, are in operation before any mechanical conveyor that may be provided for feeding the article or substances to be processed in the oven or drier, input into operation

(b) Failure of any the ventilating or circulating fans will automatically stop any conveyor as referred to in clause (a) as may be provided as well as so the fume supply by closing the shut of valve and shut off the ignition in the case of gas or oil fired ovens and in case of electrically heated oven switch off the electrical supply to the heater

(c) The afore said mechanical conveyor is set in operation before the said shut off valve can be energies

(d) The failure of the aforesaid conveyor will automatically closed the said shut off valve in the case of oven and drier heated by gas , oil or steam and deactivate the ignition system or cut off the electrical heater in the case of electrically heated ovens are furnaces

**8. Automatic ventilation;** - Every oven or drier heated by oil, gas, steam or electricity shall be provided with an efficient arrangement for automatic ventilation consisting of at least three volume changes with fresh air by operation of safety ventilation fans and circulating fans so as to effect purging of the

oven or drier of any mixture of air and flammable substance before the heating system can be activated and before the conveyor can be placed in position.

**9. Temperature control** – Every oven or drier shall be provided with an automatic arrangement to ensure that the temperature which does not exceed a maximum temperature required in respect of the particular process is being carried out

**10. Multi stage processes** – Whatever material are to be processed in ovens or driers in successive operation suitable arrangements should be provided to ensure that the operating temperature necessary for safe operation at each stage are maintain within the design limit

**11. Combustible substances not to drip on electrical heater or burner flame** –

Effecting arrangement shall be provided in every oven or drier to prevent dripping of combustible substances on electrical heater or burner flame used for heating.

**12. Periodical examination, testing and maintenance** – (a) All parts of every oven or drier shall be properly maintain and thoroughly examined and the various control as mentioned in the schedule and the working of the oven or drier shall be tested at frequent interval to ensure its safe operation by a responsible person authorized by the occupier or manager in this behalf who by his experience and knowledge of necessary precaution against risk of explosion, is fit to undertake such work

(b) A register shall be maintained in which the details of various tests carried out from time to time under clause (a) shall be entered and every entry shall be signed by the person making the test.

**13. - Training of operator** – No person shall be assigned any task connected with operation of any oven or drier unless his has completed 18 yrs of a and is properly trained

**14. Polymerizing machine** – (a) Printed fabric shall be thoroughly dried by passing them over drying canes or through hot flue or other equally effecting means before the same is allowed to pass through polymerizing machines

(b) Infra ray heater of polymerizing machines shall be cut off while running the print

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**SCHEDULE – XVIII****MANUFACTURE OR MANIPULATION OF CARCINOGENIC  
DYE INTERMEDIATES**

**1. Application** – The schedule shall apply in respect of all factories or any part thereof where processes in which the process of manufacturing or manipulation of a carcinogenic Dye Intermediates (here in referred to as the said manufacturing processes) is carried on.

Provided that Paragraphs 25 and 26 shall only to the a process involving manufacturing, manipulation of compounds mentioned in Appendix B ( here in referred to as the said manufacturing processes B)

**PART-I**

**2. Definition** – (a) For the purpose of this schedule a nitro or amino compounds means a nitrated or aminated compound of aromatic hydrocarbons mentioned in Appendix A or B attached there to.

(b) “Approved “means approved by Chief Inspector-cum-Facilitator.

(c) “Omitted”

(d) “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

(e) Manipulation shall include mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping, handling, using or chemical processing of a nitro-amino compound.

(f) “Air line respirator” means a helmet or face piece with necessary connections by means of which a person using it in a poisonous or irritant atmosphere breathes ordinary air or any suitable apparatus approved in writing by Chief Inspector-cum-Facilitator.

**3. Cautionary placards** – Cautionary placards in the form specified in appendix attached to this schedule and printed in the language of the majority of the workers employed in the said processes shall be affixed in prominent places frequented by them in the factory, where the placards can be conveniently read. Arrangements shall be made by the manager to instruct periodically all

such workers regarding the precautions contained in the cautionary placards.

**4. Prohibition relating to employment of pregnant women and Adolescent** – No pregnant woman or adolescent shall be employed or permitted to work in any room in which the said processes are carried on.

**5. Air space-** in every room in which the said manufacturing process is carried on there shall at least 15 cubic-meters of air space excluding any space occupied by machinery equipments or any other article for each person employed there in and in computing this air space no height over 4.25 meters shall be taken into account.

**6. Efficient exhaust draught-** unless the said process is completely enclosed so as to not to give rise to dust or fume it shall not be carried on without the use of an efficient exhaust draught when a nitro or amino compound;

(a) Is introduced into a tank, hopper, machine, or container or filled into cartridge; or

(b) Is ground, crushed, mixed, sieved, or blended.

**7. Floors of workroom** – The floor of every workroom in which the said processes are carried on shall be

(a) Smooth and impervious to water provided that asphalt or tar shall not be used in the composition of the floor,

(b) Maintained in a state of good repair,

(c) With a suitable slope for easy draining and provided with gutters and

(d) Thoroughly washed daily with the drain water being led into a sewer through a closed channel.

**8. Work benches-** work benches on which a nitro or amino compound is manipulated shall-

(a) Have a smooth impervious surface preferably of stainless steel; and

(b) Be washed daily with hose-pipe or cleaned by means of suction cleaning apparatus at the time when no other work is carried on there at.

**9. Waste disposal** –

(1) There shall be provided a suitable receptacle made of non-absorbable material with a tightly fitting cover for depositing waste material like cloth

paper or other material soiled with a nitro or amino compound.

(2) Such receptacle shall be destroyed by burning or using other suitable methods under the supervision of a responsible person.

**10. Disposal of empty containers** – Empty containers used for holding compounds included under Appendix-A shall be thoroughly cleaned of their contents and treated with an inactivating agent before being discarded.

**11. Decontamination of Pits, Tanks etc.-**

(a) before a worker enters a pit, tank, kettle or any other confined space which contains a nitro or amino compound it shall be thoroughly washed and cleaned.

(b) No part of the plant which contains nitro or amino compounds shall be repaired or opened for repairs unless it has been emptied of such compounds and thoroughly cleaned & decontaminated.

(c) Records of such treatments shall be maintained in a register approved by the Chief Inspector-cum-Facilitator and the register shall be made available for inspection when required by Inspector-cum-Facilitator.

**12. Manual handling** – Controlled substances shall not be allowed to be mixed, filled, emptied or handled except by means of a scoop with a handle. Such scoop shall be thoroughly cleaned daily

**13. Protective wears-** the occupier shall provide, maintain clean and in good condition protective clothing and other equipments as specified in the table below:-

**TABLE**

Process	Protective clothing and other equipments
(i) For manipulation of compounds Mentioned in Appendix-A	(a) Long trousers and shirts or overalls with full sleeves and head coverings. The shirt or overall shall cover the neck completely; and

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	(b) rubber hand gloves, rubber aprons, rubber gum boots and airline respirator
For manipulation of compounds	(a) White clean clothing
(ii) Mentioned in Appendix-B	mentioned in (A) as above in addition to white clean shirts. Singlet and protective equipments as mentioned in (a) above (b) White long sleeve apron

**14. Instructions regarding risk** – Every worker on his first employment in the said processes shall be fully instructed on the properties of the toxic chemicals to which he is likely to be exposed to, of the dangers involved and the precautions to be taken. Workers shall also be instructed on the measures to be taken to deal with an emergency.

**15. Medical examination by medical officer** – (1) every worker employed in the processes specified in paragraph 1 shall be examined by a Medical officer within 15 days of his first employment. Such examinations shall include skin test for dermatitis and no worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in a manganese process shall be re-examined by a Medical officer at least once in every three calendar months and such examination shall, wherever the Medical officer considers appropriate, include all the tests in sub-paragraph (1).

(3) The Medical officer after examining a worker shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried



out under sub-paragraph (1) and (2), including the nature and the results of this test, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

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

#### **16. Washing and bathing facilities –**

(1) The following washing and bathing facilities shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the said processes:-

(a) a wash place under cover having constant supply of water and provided with clean towels, soap and nail brushes and with at least one stand pipe for every five such workers;

(b) 50 percent of the stand pipes provided under clause (a) shall be located in bathrooms where both hot and cold water shall be made available during the working hours of the factory and for one hour thereafter;

(c) The washing and bathing facilities shall be in close proximity of the area housing the said processes;

(d) Clean towels shall be provided individually to each worker; and

(e) in addition to the taps mentioned under clause (a), one stand pipe, in which warm water is made available, shall be provided on each floor.

(2) Arrangement shall be made to wash factory uniforms and other work

clothes every day.

**17. Washing and bathing-** (a) all the workers employed in the said manufacturing process shall carefully wash their hands and faces before taking food or leaving factory.

(b) Bath register- the workers employed in the said manufacturing process shall take bath at factory premises and will enter their names in the bath register as token of having done so.

**18. Food, drinks, etc. Prohibited in workroom** – No worker shall consume food, drink, pan, supari or tobacco or shall smoke in any workroom in which the said processes are carried on and no worker shall remain in any such room during intervals for meals or rest.

**19. Cloakroom** – There shall be provided and maintained in a clean state and in good repair for the use of the workers employed in the said processes

(a) a cloakroom with lockers having two compartments – one for street clothes and the other for work clothes, and

(b) a place separate from the locker room and the mess room, for the storage of protective equipment provided under paragraph 7. The accommodation so provided shall be under the care of a responsible person and shall be kept clean.

**20. Mess room** – There shall be provided and maintained for the use of workers employed in the said processes who remain on the premises during the meal intervals, a mess room which shall be furnished with tables and benches and provided with suitable means for warming food. The mess room shall be placed under the charge of a responsible person and shall be kept clean.

**21. Time allowed for washing** – Before each meal and the end of the day at least 10 minutes addition to the regular interval shall be allowed for washing to each person who has been employed in the said process.

**22. Drying stoves-** (a) every drying stove shall be efficiently ventilated to the outside air in such a manner that hot air from stove shall not be drawn into any work room.

(b) No person shall enter into stove to remove the contents until a free current of air has been passed through by mechanical means.

**23. non-sparking tools-** non sparking tools shall be provided for the purpose

of cleaning or repairing machinery or operating any process where vapours of betanaphthyl amine are evolved.

**24. Testing of atmosphere-** Amines in the atmosphere of the work room where the manufacturing process is carried on shall be estimated once in every week and records of such estimations shall be made available when required by an Inspector-cum-Facilitator.

## PART-II

**25. Separation of process-** the said manufacturing process 'B' shall be carried on in rooms which shall not communicate with the other rooms except through a passage open entirely to outside atmosphere.

**26. Limitation of exposure-** (a) no worker under the age of 40 years shall be engaged in the factory for the said manufacturing process 'B' for the first time after the date on which these rules come into force.

(b) before the end of the day at least one hour shall be allowed for bathing to each person who is employed in the said manufacturing process 'B' including the time allowed under paragraph 22.

**27. Exemptions –** If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for the protection of the workers in the factory, the Chief Inspector-cum-Facilitator may by a certificate in writing (which he may in his discretion revoke at any time), exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

## APPENDIX-A

### [SEE PARAGRAPH 2, 10, 13]

The benzenes, Toulènes, Xylenes, having undergone nitration once or several times (nitro, dinitro and trinitro benzene and its homologues) and chlorinated compounds, naphthalenes, having undergone nitration once or several times, anilines and its homologues (toluidine, Xylidine, cumidine) anisidine, phenetidine and their chlorinated nitrated and alkylated compounds (dimethylamine, toluyldiamine, toluidine phenylhydrazine, toluyldiazine)

**APPENDIX-B**  
**[SEE PARAGRAPH 2 & 13]**

1. Alphanaphthylamine
2. betanaphthylamine
3. Benzidine and its salts
4. dianisidine
5. Toludine
6. Dichlorobenzidine

**APPENDIX – C**  
**CAUTIONARY PLACARD/NOTICE**

1. Nitro and amino compounds are aromatic hydro carbons are dangerous .In this factory you have to handle them carefully.
2. All items of protective wear provided should be made use of to safeguard your health.
3. Maintain cleanliness at all times. Before meals wash hands and feet. A bath before leaving the factory is essential taking care to wash the hands well.
4. If any chemicals falls on your body wash it off immediately with soap and water. Change clothing at once. If soap with a cynoticnitromino compound contact the appointed doctor immediately.
5. Do not handle any nitro or amino compounds bare hand. Use a long handle scoop.
6. Avoid alcoholic drinks as these can cause risk of poisoning.
7. In case of illness contact the factory manager and the appointed doctor.
8. Don't chew, eat, drink or smoke in the work room or with soiled hands. Keep food and drinks away from the work place.
9. If you work with betanaphthylamine or benzedine or its salt alphanapthalymine or dianisidine :-
  - (a) Remember the serious effects will follow after a number of year if great care is not taken to observe absolute cleanliness of body, close, missionary and tools
  - (b) At meal time wash face and hands twice with soap and water to remove all chemicals; wear a long sleeve clean apron while eating
  - (c) Before leaving the factory take a bath using soap and water twice after this put on your home clothes

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**SCHEDULE – XIX****PROCESS OF EXTRACTING OILS AND FATS FROM  
VEGETABLES AND ANIMAL SOURCES IN SOLVENT****EXTRACTION PLANTS****1. Definitions** – For the purposes of this schedule –

- (a) “solvent extraction plant” means a plant in which the process of extracting oils and fats from vegetable and animal sources by use of solvents is carried on;
- (b) “solvent” means an flammable liquid such as pentane, hexane and heptane use for the recovery of vegetable oils;
- (c) “flameproof enclosure” as applied to electrical machinery or apparatus means an enclosure that will withstand, when covers or other access doors are properly secured, an internal explosion of the flammable gas or vapour which may enter or which may originate inside the enclosure without suffering damage and without communicating internal inflammation (or explosion) to the external flammable gas or vapour;
- (d) “competent person” for the purpose of this schedule shall be at least a member of the Institution of Engineers ( India) or an Associate Member of the said Institution with 10 years experience in a responsible position as may be approved by the Chief Inspector-cum-Facilitator:

Provided that a graduate in mechanical engineering or chemical technology with specialised knowledge of oils and fats and with a minimum experience of 5 years in a solvent extraction plant shall also be considered to the a competent person.

Provided further that the State Government may accept any other qualifications if in its opinion they are equivalent to the qualifications aforesaid.

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

(2) A 1.5 meter high continuous wire fencing shall be provided around the solvent/extraction plant upto a minimum distance of 15 meters from the plant.

(3) No person shall be allowed to carry any matches or an open flame or fire

inside the area round by the fencing.

(4) Boiler houses and other buildings where open flame processes are carried on shall be located at least 30 meters away from the solvent extraction plant;

(5) If god owns and preparatory processes are at a distance of less than 30 metres from the solvent extraction plant, these shall be at least 15 meters distant from the plant, and a continuous barrier wall of non-combustible material 1.5 meters high shall be erected at a distance of not less than 15 meters from the solvent extraction plant so that it extends to at least 30 meters of vapour travel around its ends from the plant to the possible sources of ignition.

**3. Electrical installations** – (1) all electrical motors and wiring and other electrical equipment installed or housed insolvent extraction plant shall be of flameproof construction.

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

**4. Restriction on smoking** – Smoking shall strictly prohibited within 15 meters distance from solvent extraction plant. For this purpose, “NO smoking” signs shall be permanently displayed in the area.

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

(2) No machinery or equipment in any solvent extraction plant shall be belt driven, unless the belt used is of such a type that it does not permit accumulation of static electricity to a dangerous level.

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

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

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

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

**8. Magnetic Separators** – Oil cake shall be fed to the extractor by a conveyer through a hopper and a magnetic separator shall be provided to remove any pieces of iron during pressure in the event of fire.

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

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

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

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

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

(2) Waste materials such as oily rags, other wastes and absorbents used to wipe off solvent and paints and oils shall be deposited in approved containers and removed from the premises at least once a day.

(3) Space within the solvent extraction plant and within 15 meters from the plant shall be kept free from any combustible materials and any spills of oil or solvent, shall be cleaned up immediately.

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

(2) No repairs shall be carried out to the machinery or plant except under the direct supervision of the competent person.

(3) Facility shall be provided for purging the plant with inert gas or steam before opening for cleaning or repairs and before introducing solvent after repairs.

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

**15. Employment of women and Adolescent** – No woman or adolescent shall be employed in the solvent extraction plant.

**16. Vapour detection** – A suitable type of flameproof and portable combustible gas indicator shall be provided and maintained in good working order and a schedule of routine sampling of atmosphere at various locations as approved by the chief Inspector-cum-Facilitator shall be drawn out and entered in a register maintained for the purpose.

**17.Exemption** – If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for the protection of the workers in the factory, the Chief Inspector-cum-Facilitator may by a certificate in writing (which he may in his discretion revoke at any time) exempt such factory from all or any of such provisions subject to conditions, if any, as he may specify therein.

## **SCHEDULE – XX**

### **MANUFACTURE OR MANIPULATION OF MANGANESE AND ITS COMPOUNDS**

**1. Definitions** – For the purposes of this schedule –

(a) “manganese process” means processing, manufacture or manipulations of



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manganese or any ore or any mixture containing manganese;

(b) “first employment” means first employment in any manganese process and includes also re-employment in any manganese process followed any cessation of employment for continuous period of 3 calendar months.

(c) “Manipulations” means mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping, or otherwise handling of manganese, or mixture containing manganese; and

(d) “efficient exhaust ventilation” means localised ventilation effected by mechanical means for the removal of dust or fume or at its source of origin so as to prevent it from escaping into the atmosphere of any place where any work is carried on. No draught shall be deemed to be efficient which fails to remove the dust or fume or mist at the point where it is generated and fails to prevent it from escaping into and spreading into the atmosphere of a work place.

**2. Application** – This schedule shall apply to every factory in which or in any part of which any manganese process is carried on.

**3. Exemption** – If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to any exceptional circumstances, or infrequency of the process, or for any other reason, application of all or any of the provisions of this schedule is not necessary for the protection of the persons employed in such factory, he may by an order in writing which he may at his discretion revoke, exempt such factory from all or any of the provisions on such conditions and for such period as he may specify in the said order.

**4. Isolation of a process** – Every manganese process which may give rise to dust, vapour or mist containing manganese, shall be carried on in a totally enclosed system or otherwise effectively isolated from other processes so that other plants and processes and other parts of the factory and persons employed on other processes may not be affected by the same.

**5. Ventilation of process** – No process in which any dust, vapour or mist containing manganese is generated, shall be carried out except under an efficient exhaust ventilation which shall be applied as near to the point of generation as practicable.

**6. Medical examination by medical officer** – (1) Every worker employed

in any manganese process shall be medically examined by a Medical officer within 15 days of his first employment. Such examinations shall include tests for detection of serum calcium, serum phosphate and manganese in blood and urine and also include steadiness tests and other neuro-muscular coordination tests. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified for such employment by the Medical officer.

(2) Every worker employed in a manganese process shall be re-examined by a Medical officer at least once in every three calendar months and such examination shall, wherever the Medical officer considers appropriate, include all the tests in sub-paragraph (1).

(3) The Medical officer after examining a worker shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of this test, shall also be entered by the medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

(6) No person who has been found unfit to work as said in sub-paragraph (5) shall be 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. 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 overalls and head coverings shall be worn by the persons while working on a manganese process.

(2) The occupier of the factory shall provide suitable respiratory protective equipment for use by works in emergency to prevent inhalation of dusts, fumes or mists. Sufficient number of complete sets of such equipment shall always be kept near the work place and the same shall be properly maintained and kept always in a condition to be used readily.

(3) The occupier shall provide and maintain for the use of all persons employed, suitable accommodation for the storage and make adequate arrangements for cleaning and maintenance of personal protective equipment.

**8. Prohibition relating to pregnant women and Adolescent** – No pregnant women or adolescent shall be employed or permitted to work in any manganese process.

**9. Food, drinks, etc. Prohibited in the work rooms** – No food, drink, pan and supari or tobacco shall be allowed to be brought into or consumed by any worker in any workroom in which any manganese process is carried on.

**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) A wash place under cover, with either –

(i) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimetres for every ten such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimetres;

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

(b) sufficient supply of soap or other suitable cleaning material and nail brushes and clean towels.

**12. Cloakroom** – If the Chief Inspector-cum-Facilitator so requires there shall be provided and maintained for the use of persons employed in manganese process a cloakroom for clothing put off during working hours with adequate arrangements for drying the clothing.

**13. Cautionary placard and instructions** – Cautionary notices in the form specified in appendix and printed in the language of the majority of the workers and employed, shall be affixed in prominent places in the factory where they can be easily and conveniently read by the workers and arrangement shall be made by the occupier to instruct periodically all workers employed in a manganese process regarding the health hazards connected with their duties and the best preventive measures and methods to protect themselves. The notices shall always be maintained in a legible condition.

#### APPENDIX

##### CAUTIONARY NOTICE

( Manganese and Manganese Compounds)

1. Dust free and mists of manganese and its compounds are toxic when inhaled or when ingested.
2. Do not consume food or drink near the work place.
3. Take a good wash before taking meals.
4. Keep the working area clean.
5. Use the protective clothing and equipment provided.
6. When required to work in situations where dusts, fumes or mists are likely to be inhaled, use respiratory protective equipment provided for the purpose.
7. If you get severe head-aches, prolonged sleeplessness or abnormal sensations on the body, report to the occupier who would make arrangements for your examination and treatment.

#### SCHEDULE – XXI

##### MANUFACTURE, HANDLING AND USAGE OF BENZENE AND SUBSTANCES CONTAINING BENZENE

**1. Application** – This schedule is made to provide protection against hazards of poisoning from benzene and shall apply in respect of factories or parts

thereof in which benzene or substances containing benzene are manufactured, handled or used.

**2. Definitions –** For the purpose of this schedule –

- (a) “substances containing benzene” means substances wherein benzene content exceeds 1 per cent by volume;
- (b) “substitute” means a chemical which is harmless or less harmful than benzene and can be used in place of benzene;
- (c) “enclosed system” means a system which will not allow escape of benzene vapours to the workers atmosphere; and
- (d) “efficient exhaust draught” means localised ventilated effected by mechanical means for the removal of gases, vapours and dusts or fumes so as to prevent them from escaping into the air of any workroom. No draught shall be deemed to be efficient if it fails to remove smoke generated at the point where such gases, vapours, fumes or dusts originate.

**3. Prohibition and substitution –**

- (1) Benzene and substances containing benzene shall not be used as solvent or dilutant unless the process in which it is used is carried on in an enclosed system or unless the process is carried on in manner which is considered equally safe as if it were carried out in an enclosed manner.

Use of benzene and substances containing benzene is prohibited in the following processes :-

- (a) manufacture of varnishes, paints and thinners; and
- (b) Cleaning and degreasing operations.

- (2) Where suitable substitutes are available, they shall be used instead of benzene or substances containing benzene. This provision, however, shall not apply to the processes specified in Appendix A.

- (3) The Chief Inspector-cum-Facilitator may, subject to confirmation by the State Government, permit exemptions from the percentage laid down in sub-paragraph 2(a) and also from the provisions of sub-paragraph (2) of this paragraph temporarily under

conditions and within limits of time to be determined after consultation with the employers and workers concerned.

#### **4. Protection against installation –**

(1) The process involving the use of benzene or substances containing benzene shall be as far as practicable be carried out in an enclosed system.

(2) Where, however, it is not practicable to carry out the process in an enclosed system, the workroom in which benzene or substances containing benzene are used shall be equipped with an efficient exhaust draught or other means for the removal of benzene vapours to prevent their escape into the air of the workroom so that the concentration of benzene in the air does not exceed 10 parts per million by volume or 30 milligrams per cubic meter.

(3) Air analysis for the measurement of concentration of benzene vapours in air shall be carried out every 8 hours or at such intervals as may be directed by the Chief Inspector-cum-Facilitator at places where process involving use of benzene is carried on and the result of such analysis shall be recorded in a register specially maintained for this purpose. If the concentration of benzene vapours in air as measured by air analysis, exceeds 10 parts per million by volume or 30 milligrams per cubic meter, the occupier shall forthwith report the concentration to the Chief Inspector-cum-Facilitator stating the reasons for such increase.

(4) Workers who for special reasons are likely to be exposed to concentration of benzene in the air of the workroom exceeding the maximum referred to in subparagraph (2) shall be provided with suitable respirators or face masks. The duration of such exposure shall be limited as far as possible.

#### **5. Measures against skin contact –**

(1) Workers who are likely to come in contact with liquid benzene or liquid substances containing benzene shall be provided with suitable gloves, aprons, boots and where necessary vapour tight chemical goggles, made of material not affected by benzene or its vapours.

(2) The protective wear referred to in sub-paragraph (1) shall be maintained in good condition and inspected regularly.

**6. Prohibition relating to employment of pregnant women and Adolescent –** No pregnant woman or adolescent shall be employed or permitted to work in any workroom involving exposure to benzene or substances containing benzene.

**7. Labelling** – Every container holding benzene or substances containing benzene shall have the word “Benzene” and approved danger symbols clearly visible on it and shall also display information on benzene content, warning about toxicity and warning about infallibility of the chemical.

**8. Improper use of benzene-**

(1) The use of benzene substances containing benzene by workers for cleaning their hands or their work clothing shall be prohibited.

(2) Workers shall be instructed on the possible dangers arising from such misuse.

**9. Prohibition of consuming food, etc. In workrooms** – No worker shall be allowed to store or consume food or drink in the workroom in which benzene or substances containing benzene are manufactured, handled or used. Smoking and chewing tobacco or pan shall be prohibited in such workrooms.

**10. Instructions as regards risks** – Every worker on his first employment shall be fully instructed on the properties of benzene or substances containing benzene which he has to handle and of the dangers involved. Workers shall also be instructed on the measures to be taken to deal with in an emergency.

**11. Cautionary notices** – Cautionary notices in the form specified in appendix and printed in the language easily read and understood by the majority of the workers shall be displayed in prominent places in the workrooms where benzene or substances containing benzene are manufactured, handled or used.

**12. Washing facilities, cloakroom and mess room** – In factories in which benzene or substances containing benzene are manufactured, handled or used, the occupier shall provide and maintain in a clean state and in good repair –

(a) washing facilities under cover, of the standard of at least one tap for every 10 persons having constant supply of water with soap, and a clean towel provided individually to each worker if so ordered by the Inspector-cum-Facilitator;

(b) cloakroom with lockers for each worker, having two compartments – one for street-clothing and one for work-clothing; and

(c) a mess room furnished with tables and benches with means for warming food, provided that where a canteen or other proper arrangements exist for the workers to take their meals, the requirements of mess room shall be dispensed with.

**13. Medical examination by Medical officer –**

(1) Every worker employed in the processes specified in paragraph 1 shall be examined by a Medical officer within 15 days of his first employment. Such examinations shall include skin test for dermatitis and no worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in a manganese process shall be re-examined by a Medical officer at least once in every 12 months and such examination shall, wherever the Medical officer considers appropriate, include all the tests in subparagraph (1).

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of this test, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

(6) No person who has been found unfit to work as said in sub-paragraph (5) shall be 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.



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**APPENDIX-A****[SEE CLAUSE 3(B)]**

- 1 production of benzene
- 2 process where benzene is used for chemical synthesis
- 3 motor spirits (used as fuel)

**APPENDIX-B****[SEE CLAUSE 11]****CAUTIONARY NOTICE**

(Benzene and substances containing benzene)

**1. Hazards**

- (a) Benzene and substances containing benzene are harmful.+
- (b) Prolonged or repeated breathing of benzene vapours may result in acute or chronic poisoning.
- (c) Benzene can also be absorbed through skin which may cause skin or other diseases.

**2. Preventive measures**

- (a) Avoid breathing of benzene vapours.
- (b) Avoid prolonged or repeated contact of benzene with the skin.
- (c) Remove benzene soaked or wet clothing promptly.
- (d) If any time you are exposed to high concentration of benzene vapours and exhibit signs and symptoms such as dizziness, difficulty in breathing, excessive excitation and losing of consciousness, immediately inform your factory manager.
- (e) Keep all the containers of benzene closed
- (f) Handle, use and process benzene and substances containing benzene carefully in order to prevent their spillage on floor.
- (g) Maintain good housekeeping.

**3. Protective equipment**

- (a) Use respiratory protective equipment in places where benzene vapours are present in high concentration.

(b) In emergency, use self generating oxygen mask or oxygen or air cylinder masks.

(c) Wear hand gloves, aprons, goggles and gum boots to avoid contact of benzene with your skin and body parts.

4. First-aid measures in case of acute benzene poisoning

(a) Remove the clothing immediately if it is wetted with benzene.

(b) If liquid benzene enters eyes, flush thoroughly for at least 15 minutes with clean running water and immediately secure medical attention.

(c) In case of unusual exposure to benzene vapour, call a physician immediately. Until he arrives, do the following :-

(i) If the exposed person is conscious –

(a) Move him to fresh air in open.

(b) Lay down without a pillow and keep him quiet and warm.

(ii) If the exposed person is unconscious –

(aa) Lay him down preferably on the left side with the head low.

(bb) Remove any false teeth, chewing gum, tobacco or other foreign objects which may be in his mouth.

(cc) Provide him artificial respiration in case difficulty is being experienced in breathing.

(dd) In case of shallow breathing or cyanosis (blueness of skin, lips, ears, finger nail beds), he should be provided with medical oxygen or oxygen carbon dioxide mixture. If needed, he should be given artificial respiration. Oxygen should be administered by a trained person only.

**SCHEDULE – XXII**

**MANUFACTURING PROCESS OR OPERATION IN 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. This schedule is in addition to and not in derogation of any of the provisions of the Code and Rules made there under.

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**2. Construction, installation and operation-**

(1) The buildings in which electric furnaces are installed and carbon disulphide after generation is condensed and refined shall be segregated from other parts of the factory and shall be of open type to ensure optimum ventilation and the plant layout shall be such that only a minimum number of workers are exposed to the risk of any fire or explosion at any one time.

(2) Every electric furnace and every plant in which carbon disulphide is condensed, refined and stored with all their fittings and attachments shall be of good construction, sound material and of adequate strength to sustain the internal pressure to which the furnace or the plant may be subjected to and shall be so designed that carbon disulphide liquid and gas are in closed system during their normal working.

(3) The electric furnace supports shall be firmly grouted about 60 centimetres in concrete or by other effective means.

(4) Every electric furnace shall be installed and operated according to manufacturers' instructions and these instructions shall be clearly imparted to the personnel in charge of construction and operation.

(5) The instructions regarding observance of correct furnace temperature, sulphur dose, admissible current or power consumption and periodical checking of charcoal level shall be strictly complied with.

**3. Electrodes –**

(1) Where upper ring electrodes made of steel are used in the electric furnace, they shall be of seamless tube construction and shall have arrangement for being connected to cooling water system through a siphon built in the electrodes or through a positive pressure water-pump.

(2) The arrangement for cooling water referred to in sub-paragraph (1) shall be connected with automatic alarm system which will actuate in the event of interruption of cooling water in the electrodes and give visible and audible alarm signals in the control room and simultaneously stop power supply for the furnace operation and to stop the further supply of water. The alarm system and the actuating device shall be checked every day.

**4. Charcoal level indicator and vibrator –** Means shall be provided on each electric furnace for indicating the correct level of charcoal in the furnace

and vibrating the charcoal. This mean shall employed often as necessary to maintain correct charge and level of charcoal.

**5. Charcoal separator** – A cyclone type of charcoal separator shall be fitted on the off take pipe between the electric furnace and sulphur separator to prevent entry of pieces of charcoal into the condensers and piping.

**6. Rupture discs and safety seal –**

(1) At least two rupture discs of adequate size which shall blow off at a pressure twice the maximum operating pressure shall be provided on each furnace and shall either be mounted directly on the top of the furnace or each through an independent pipe as close as possible to the furnace.

(2) A safety water seal shall be provided and tapped from a point between the charcoal separator and the sulphur separator.

**7. Pyrometer and manometers –**

(1) Each electric furnace shall be fitted with adequate number of pyrometers to give an indication of the temperature as correctly as reasonably practicable at various points in the furnace. The dials for reading the temperatures shall be located in the control room.

(2) Manometers or any other suitable devices shall be provided for indicating pressure–

(a) In the off take pipe before and after the sulphur separator; and

(b) In primary and secondary condensers.

**8. Check valves** – All piping carrying carbon disulphide shall be fitted with check valves at suitable positions so as to prevent gas from flowing back into any electric furnace in the event of its shut down.

**9. Inspection and maintenance of electric furnaces –**

(1) Every electric furnace shall be inspected internally by a competent person.

(a) Before being placed in service after installation;

(b) Before being placed in service after reconstruction or repairs; and

(c) Periodically every time the furnace is opened for cleaning or de- or for replacing electrodes.

(2) When an electric furnace is shut down for cleaning or de–

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- (a) The brick lining shall be checked for continuity and any part found defective removed;
  - (b) After removal of any part of the lining referred to in (a) the condition of the shell shall be closely inspected; and
  - (c) Any plates forming shall found corroded to the extent that safety of the furnace is endangered shall be replaced.

**10. Maintenance of records** – The following hourly records shall be maintained in a logbook.

- (a) Manometer readings at the points specified in sub-paragraph 7(2);
- (b) Gas temperature indicated by pyrometers and all other vital points near the sulphur separator and primary and secondary condensers;
- (c) Water temperature and flow of water through the siphon in the electrodes; and
- (d) Primary and secondary voltages and current and energy consumed.

**11. Electrical apparatus, wiring and fittings** – All buildings in which carbon disulphide is refined or stored shall be provided with electrical apparatus, wiring and fittings which shall afford adequate protection from fire and explosion.

**12. Prohibition relating to smoking** – No person shall smoke or carry matches, fire or naked light or other means of producing a naked light or spark in buildings in which carbon disulphide is refined or stored, and a notice in the language understood by a majority of the workers shall be posted in the plant prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked light or spark into such rooms.

**13. Means of escape** – Adequate means of escape shall be provided and maintained to enable persons to move to a safe place as quickly as possible in case of an emergency. At least two independent staircases of adequate width shall be provided in every building housing the furnaces at reasonable intervals at opposite ends. These shall always be kept clear of all obstructions and so designed to afford easy passage.

**14. Warnings in case of fire** – There shall be adequate arrangements for giving warnings in case of fire or explosion which shall operate on electrically and in case of failure of electricity by some mechanical means.

**15. Fire-fighting equipment –**

(1) Adequate number of suitable fire extinguishers or other fire-fighting equipment shall be kept in constant readiness for dealing with risks involved and depending on the amount and nature of materials stored.

(2) Clear instructions as to how the extinguishers or other equipment should be used printed in the language which the majority of the workers employed understand, shall be affixed to each extinguisher or other equipment and the personnel trained in their use.

**16. Bulk Sulphur –**

(1) Open or semi-enclosed spaces for storage of bulk sulphur shall be sited with due regard to the dangers which may arise from sparks given off by nearby locomotives, etc., and precautions shall be taken to see that flames, smoking and matches and other sources of ignition do not come in contact with the clouds of dust arising during handling of bulk sulphur.

(2) 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.

(3) The bulk sulphur in the enclosures shall be handled in such a manner as to minimise the formation of dust clouds and no flame, smoking and matches or other sources of ignition shall be employed during handling and non-sparking tools shall be used whenever sulphur is shovelled or otherwise removed by hand.

(4) No repairs involving flames, heat or use of hand or power tools shall be made in the enclosure where bulk sulphur is stored.

**17. Liquid sulphur –** Open flames, electric sparks and other sources of ignition, including smoking and matches, shall be excluded from the vicinity of molten sulphur.

**18. Training and supervision –**

(1) All electric furnaces and all plants in which carbon disulphide is condensed, refined or stored shall be under adequate supervision at all times while the furnaces and plant are in operation.

(2) Workers in charge of operation and maintenance of electric furnaces and the plants shall be properly qualified and adequately trained.

**19. Washing facilities –**

(1) The occupier shall provide and maintain in a clean state and in good repair, for the use of all persons employed wash place under cover with at least one tap or stand-pipe, having a constant supply of clean water for every five such persons, the taps or stand-pipes being spaced not less than 120 centimetres apart with a sufficient supply of soap and clean towels, provided that towels shall be supplied individually to each worker if so ordered by the Inspector-cum-Facilitator.

(2) All the workers employed in the sulphur storage, handling and melting operations shall be provided with a nail brush.

**20. Personal protective equipment –**

(1) Suitable goggles and protective clothing consisting of overalls without packets, gloves and foot-wear shall be provided for the use of operatives –

(a) when operating valves or cocks controlling fluids etc.,

(b) drawing off a molten sulphur from sulphur pots;

(c) handling charcoal or sulphur.

(2) Suitable respiratory protective equipment shall be provided and stored in the appropriate place for use during abnormal conditions or in an emergency.

(3) Arrangements shall be made for proper and efficient cleaning of all such protective equipment.

**21. Cloakrooms –** There shall be provided and maintained for the use of all persons employed in the processes a suitable cloakroom for clothing put off during work hours and a suitable place separate from the cloakroom for the storage of overalls or working clothes. The accommodation so provided shall be placed in the charge of a responsible person and shall be kept clean.

**22. Unauthorized persons –** Only maintenance and repair personnel, persons directly connected with the plant operation and those accompanied by authorized persons shall be admitted into the plant.

**SCHEDULE – XXIII**  
**OPERATIONS INVOLVING HIGH NOISE LEVELS AND**  
**VIBRATION LEVELS**

**PART-A High Noise Level**

**1. Application** – This part of schedule shall apply to all operations in any manufacturing process having high noise level.

**2. Definitions** – For the purpose of this schedule –

- (a) "Noise" means any unwanted sound.
- (b) "High noise level" means any noise level measured on the A-weighted scale is 85 Db or above.
- (c) "Decibel" means one-tenth of "Bel" which is the fundamental division of a logarithmic scale used to express the ratio of two specified or implied quantities, the number of "Bels" denoting such a ratio being the logarithm to the base the of 10 of this ratio. The noise level (or the sound pressure level) 6 corresponds to a reference pressure of  $20 \times 10^{-6}$  Newton per square meter or 0.0002 dynes per square centimetre which is the threshold of hearing, that is, the lowest sound pressure level necessary to produce the sensation of hearing in average healthy listeners. The decibel in abbreviated form is Db.
- (d) "Frequency" is the rate of pressure variations expressed in cycles per second or hertz.
- (e) "dBA" refers to sound level in decibels as measured on a sound level meter operating on the A-weighting net work with slow meter response.
- (f) "A-weighting" means making graded adjustments in the intensities of sound of various frequencies for the purpose of noise measurement, so that the sound pressure level measured by an instrument reflects the actual response of the human ear to the sound measured.

**3. Protection against noise** –

- (1) In every factory, suitable, a suitable engineering control or administrative measures shall be taken to ensure, so far as is reasonably practicable, that no worker is exposed to sound levels exceeding the maximum permissible noise exposure levels specified in Tables 1 and 2.



Table 1

## Permissible exposure in cases of continuous noise

Total time of exposure (continuous or number of short term exposures) a per day, in hours	Sound pressure level in dBA
8	85
6	87
4	90
3	92
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 1, the permissible sound pressure level is to be determined by extrapolation on a proportionate basis.

Table 2

## Permissible exposure levels of impulsive or impact noise

Peak sound pressure level in Dba	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 1, the permitted number of impulses or impacts per day is to be determined by extrapolation on a proportionate basis.
- (2) For the purposes of this schedule, if the variations in the noise level involve maximum at intervals of one second or less, the noise is to be considered as a continuous one and the criteria given in Table 1 would apply. In other cases, the noise is to be considered as impulsive or impact noise and the criteria given in Table 2 shall 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  $C1/T1 + C2/T2 + \dots + Cn/Tn$  exceeds unity, -

Where the C1, C2 etc. Indicate the total time of actual exposure at a specified noise level and T1, T2, etc. Denote the time of exposure of less than 90 dBA may be ignored in the above calculation.

- (4) Where it is not possible to reduce the noise exposure to the levels specified in sub-rule (1) by reasonably practicable engineering control or administrative measures, the noise exposure shall be reduced to the greatest extent feasible by such control measures, and each worker so exposed shall be provided with suitable ear protectors so as to reduce the exposure to noise to the levels specified in sub-rule (1).
- (5) Where the ear protectors provided in accordance with sub-paragraph (2) and worn by a worker cannot still attenuate the noise reaching near his ear, as determined by subtracting the attenuation value in Dba of the ear protectors concerned from the measured sound pressure level, to a level permissible under Table 1 or Table 2 as the case may be, the noise exposure period shall be suitably reduced to correspond to the permissible noise exposures specified in 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

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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.

**4. Medical examination by Medical officer—**

(1) The occupier shall ensure that the workers who are likely to be exposed to high noise at above exposure action value are subjected to periodical medical examination once in a year. The medical examination shall include tests which the Medical officer may consider appropriate and shall include determination of auditory thresholds for pure tones of 125, 250, 500, 1000, 2000, 4000 and 8000 cycles per second..

(2) Every worker exposed to high noise level shall be examined by a Medical officer within 15 days of his first employment. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(3) Every worker employed in process involving high noise shall be re-examined by a Medical officer at least once in every 12 months and such examination shall, wherever the Medical officer considers appropriate, include all the tests in subparagraph (1).

(4) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of this test, shall also be entered by the Medical officer in a health register in Form-47.

(5) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

considers that the said person is unfit to work in the said process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Medical officer, in which case the person affected shall be suitably rehabilitated.

(7) No person who has been found unfit to work as said in subparagraph (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.

## **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 account of the magnitude and duration of the vibration;
- (b) “Vibration” means a mechanical phenomenon where by 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 be exceeded, as specified in sub clause-3
- (f) “hand-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 m/s<sup>2</sup> A(8);
  - (b) the daily exposure action value is 2.5 m/s<sup>2</sup> A(8), and daily exposure shall be ascertained on the basis set out in the relevant National/ International Standards specified in table 1 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 m/s<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 to 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 (m/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 hour	12

3 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.

- (1) An occupier who carries out work which is liable to expose any worker

from 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.

(2) The risk assessment should be reviewed whenever it is felt the changes in the process makes 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.

(a) Where it is not reasonably practicable to eliminate risk at source pursuant to paragraph.

(b) 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.

(c) The occupier shall ensure that the workers are provided with the following measures:-

(i) work equipment of appropriate ergonomic design which, taking account of the work to be done, produces the least possible vibration;

(ii) the provision of auxiliary equipment which reduces the risk of injuries caused by vibration; and install appropriate maintenance programmes for work equipment, the workplace and workplace systems;

(iii) 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 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.

Provided further that— 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 by Medical officer—**

(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 Reynaud's phenomenon.

(2) Every worker employed in the processes specified in paragraph 1 shall be examined by a Medical officer within 15 days of his first employment. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(3) Every worker employed in a manganese process shall be re-examined by a Medical officer at least once in every 12 months and such examination shall, wherever the Medical officer considers appropriate, include all the tests in subparagraph (1).

(4) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of this test, shall also be entered by the Medical officer in a health register in Form-47.

(5) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

suitably rehabilitated.

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

#### **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 confirming 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 as all necessary control measures are taken to ensure that the unwanted vibrations does not affect the health of the workers employed in the process to which this part of schedule apply.

(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 minimise 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 minimise 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 of significant changes in the type of work



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carried out or the working methods used by the employer.

(4) The Occupier shall display pictorial cautionary notices/warning signs at conspicuous places where there are possibilities of workers being exposed to undesired high vibrations.

**9. Prohibition in employment of pregnant women, adolescent and persons with disabilities.**

No pregnant women or adolescent or persons with disabilities shall be employed in the process covered by this part of the schedule

**10. Exemptions**

If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to any exceptional circumstances, or infrequently of the process, or for any other reason, application of all or any of the provisions of this schedule is not necessary for the protection of the persons employed in such factory, he may by an order in writing which he may at his discretion revoke, exempt such factory from all or any of the provisions on such conditions and for such period as he may specify in the said matter.

**SCHEDULE – XXIV**

**MANUFACTURE OR MANIPULATION OF DANGEROUS  
PESTICIDES**

**1. Application** – This schedule shall apply in respect of all factories or any part thereof in which the process of manufacture or manipulation of dangerous pesticide hereinafter referred to as the said manufacturing process is carried on.

**2. Definitions – For the purpose of this Schedule –**

(a) “dangerous pesticides” means any product proposed or used for controlling, destroying or repelling any pest or for preventing growth or mitigating effects of such growth including any of its formulations which is considered toxic under and is covered by the Insecticides Act, 1968 and the rules made there under and any other product, as may be notified from time to time by the State Government;

(b) “manipulation” includes mixing, blending, formulating, filling, emptying, packing or otherwise handling;

(c) “efficient exhaust draught” means localised mechanical ventilation for removal of smoke, gas, vapour, dust, fume or mist so as to prevent them from escaping into the air of any work room in which work is carried on. No exhaust draught shall be considered efficient if it fails to remove smoke generated at the point where such gas, fume, dust, vapour or mist originates from the process.

**3. Instruction to workers** – Every worker on his first employment shall be fully instructed on the properties including dangerous properties of the chemicals handled in the said manufacturing process and the hazards involved. The employees shall also be instructed in the measures to be taken to deal with any emergency. Such instructions shall be repeated periodically.

**4. Cautionary notice and placards** – Cautionary notices and placards in the form specified in appendix to this schedule and printed in the language of the majority of the workers shall be displayed in all work places in which said manufacturing process is carried on so that they can be easily and conveniently read by the workers. Arrangements shall be made by the occupier and the manager of the factory to periodically instruct the workers regarding the health hazards arising to in the said manufacturing process and methods of protection. Such notices shall include brief instructions regarding the periodical clinical tests required to be undertaken for projecting health of the workers.

**5. Prohibition relating to employment of pregnant women or Adolescent** – No pregnant woman or adolescent shall be employed or permitted to work in any room in which the said manufacturing process is carried on or in any room in which dangerous pesticide is stored.

**6. Food drinks, and smoking prohibition** – (1) No food, drink, tobacco, pan or supari shall be brought into or consumed by any worker in any workroom in which the said manufacturing process is carried out.

(2) Smoking shall be prohibited in any workroom in which the said manufacturing process is carried out.

**7. Protective clothing and protective equipment** – (1) Protective clothing consisting of long pants and shirts or overalls with long sleeves and head coverings shall be provided for all workers employed in the said manufacturing process.

(2) (a) Protective equipment consisting of rubber gloves, gum boots, rubber

aprons, chemical safety goggles and respirators shall be provided for all workers employed in the said manufacturing process.

(b) Gloves, boots, aprons shall be made from synthetic rubber where a pesticide contains oil.

(3) Protective clothing and equipment shall be worn by the workers supplied with such clothing and equipment.

(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 frequently if handling other pesticides.

(5) Protective clothing and equipment shall be maintained in good condition.

**8. Floors and work-benches –** (1) Floors in every workroom 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 slope leading to a drain and thoroughly washed once a day with the 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.

**9. Spillage and waste –** (1) If a dangerous pesticide during its manipulation splashes or spills on the work-bench, floor or on the protective clothing worn by a worker, immediate action shall be taken for thorough decontamination of such areas or articles.

(2) Cloth, rags, paper or other material soaked or soiled with a dangerous pesticide shall be deposited in a suitable receptacle with tight fitting cover. Contaminated waste shall be destroyed by burning at least once a week.

(3) Suitable deactivating agents, where available, shall be kept in a readily accessible place for use while attending to a spillage.

(4) Easy means of access shall be provided to all parts of the plant for cleaning, maintenance and repairs.

**10. Empty containers used for dangerous pesticides –** Containers used for dangerous pesticides shall be thoroughly cleaned of their contents and treated with an inactivating agent before being discarded or destroyed.

**11. Manual handling** – (1) A dangerous pesticide shall not be required or allowed to be manipulated by hand except by means of a long handled scoop.  
(2) Direct contact of any part of the body with a dangerous pesticide during its manipulation shall be avoided.

**12. Ventilation** – (1) In every workroom or area where a dangerous pesticide is manipulated, adequate ventilation shall be provided at all times by the circulation of fresh air.

(2) Unless the process is completely enclosed, the following operations during manipulation of a dangerous pesticide shall not be undertaken without an efficient exhaust draught :-

- (a) emptying a container holding a dangerous pesticide;
- (b) blending a dangerous pesticide;
- (c) preparing a liquid or powder formulation containing a dangerous pesticide; and
- (d) Changing or filling a dangerous pesticide into a container, tank hopper or machine or small sized containers.

(3) In the event of a failure of the exhaust draught provided on the above operation, the said operations shall be stopped forthwith.

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

(ii) A register containing particulars of such examination and tests shall be kept in Form 50.

**13. Time allowed for washing** – (1) Before each meal and before the end of the day's work at least ten minutes in addition to the regular rest interval shall be allowed for washing to each worker engaged in the manipulation of dangerous pesticide.

(2) Every worker engaged in the manipulation of dangerous pesticides shall have a thorough wash before consuming any food and also at the end of the day's work.

**14. 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 factory where the said manufacturing process is carried on, adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 5 persons employed.

(2) The washing places shall have standpipes placed 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 is so ordered by the Inspector-cum-Facilitator.

(5) Sufficient supply of soap and nail brushes shall be provided.

**15. Cloakroom** – There shall be provided and maintained for the use of all workers employed in the factory where the said manufacturing process is carried on –

(a) a cloakroom for clothing put off during working hours with adequate arrangements for drying clothing, if wet; and

(b) separate and suitable arrangements for the storage of protective clothing provided under paragraph 7.

**16. Mess room** – (1) There shall be provided and maintained for the use of all workers employed in the factory in which the said manufacturing process is carried on and remaining on the premises during the rest intervals, suitable mess room which shall be furnished with –

(a) sufficient tables and benches with back rest, and

(b) Adequate means for warming food.

(2) The mess room shall be placed under the charge of responsible person and shall be kept clean.

**17. Manipulation not be undertaken** – Manufacture or manipulation of a pesticides shall not be undertaken in any factory unless a certificate regarding its dangerous nature or otherwise is obtained from the Chief Inspector-cum-Facilitator.

**18. Medical examination by medical officer** – (1) every worker employed in the processes specified in paragraph 1 shall be examined by a Medical officer within 15 days of his first employment. Such examinations in respect of Halogenated Pesticides, shall include tests for determination of chemical in blood and in fat tissues, E.E.G. abnormalities and memory tests. In respect of organo phosphate compounds, such examinations shall include tests for depression of cholinesterase in plasma and red blood cells. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

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

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under subparagraph (1) and (2), including the nature and the results of these test, shall also be entered by the medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

(6) No person who has been found unfit to work as said in sub-paragraph (5)

shall be re-employed or permitted to work in the said processes unless the Medical officer, after further examination, again certifies him fit for employment in those processes.

**20. Exemption** – If in respect of any factory the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or the infrequency of the said manufacturing process or for any other reason which shall record in writing all or any of the provisions of this schedule are not necessary for the protection of workers employed in the factory, he may by a certificate in writing exempt such factory, from all or any of the provisions on such condition as he may specify therein

### APPENDIX

#### CAUTIONARY NOTICE

(Insecticides and pesticides)

1. Chemicals handled in this plant are poisonous substances.
2. Smoking, eating food or drinking, chewing tobacco in this area is prohibited. No food stuff or drink shall be brought in this area.
3. Some of these chemicals may be absorbed through skin and may cause poisoning.
4. A good wash shall be taken before meals.
5. A good bath shall be taken at the end of this shift.
6. Protective clothing and equipment supplied shall be used while working in this area.
7. Containers of pesticides shall not be used for keeping food stuffs.
8. Spillage of the chemicals on any part of the body or on the floor or workbench shall be immediately washed away with water.
9. Clothing contaminated due to splashing shall be removed immediately.
10. Scrupulous cleanliness shall be maintained in this area.
11. Do not handle pesticides with bare hands, use scoops provided with handle.
12. In case of sickness like nausea, vomiting, giddiness, the manager should be informed who will make necessary arrangements for treatment.
13. All workers shall report for the prescribed medical tests regularly to protect their own health.

**SCHEDULE – XXV**

**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-cum-Facilitator;
- (b) "breathing apparatus" means a helmet or face piece with necessary connections by means of which the person using it in a poisonous, asphyxiating or irritant atmosphere breathes unpolluted air; or any other approved apparatus;
- (c) "churn" means the vessel in which alkali cellulose pulp is treated with carbon disulphide;
- (d) "dumping" means transfer of cellulose xanthate from a dry churn to a dissolver;
- (e) "efficient exhaust draught" means localised ventilation by mechanical means for the removal of any gas or vapour, so as to prevent it from escaping into the air of any place in which work is carried on. No draught shall be deemed to be efficient if it fails to control effectively any gas or vapour generated at the point where such gas or fume originates;
- (f) "fume process" means any process in which carbon disulphide or hydrogen sulphide is produced, used or given off;
- (g) "life belt" means a belt made of leather or other suitable material which can be securely fastened round the body with a suitable length of rope attached to it, each of which is sufficiently strong to sustain the weight of a man;
- (h) "protective equipment" means apron, goggles, face shields, footwear, gloves and overalls made of suitable materials.

**2. Ventilation –**

- (1) In all workrooms where a fume process is carried on, adequate ventilation by natural or mechanical means shall be provided so as to control, in association with other control measures, the concentration of carbon-di-sulphide and hydrogen sulphide in the air of every work environment within the permissible limits.
- (2) Notwithstanding the requirements in sub-paragraph (1) an efficient exhaust



draught shall be provided and maintained to control the concentration of carbon-disulphide and hydrogen sulphide in the air at the following locations :-

- (a) dumping hoppers of dry churns;
- (b) spinning machines;
- (c) trio rollers and cutters used in staple fibre spinning;
- (d) gyro-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 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 a 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) (a) All ventilating systems provided for the purposes as required in subparagraphs(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.

(b) A register containing particulars of such examinations and tests, and the state of the systems and the repairs or alterations (if any) found to be necessary

shall be kept and shall be available for inspection by an Inspector-cum-Facilitator.

**3. Waste from spinning machines-** Waste yarn from the spinning machines shall be deposited in suitable containers provided with close fitting covers. Such waste shall be disposed off as quickly as possible after decontamination.

**4. Lining of dry churns –** The inside surface of all dry churns shall be coated with a non sticky paint so that cellulose xanthate will not stick to the surface of the churn. Such coating shall be maintained in good condition.

**5. Air monitoring –**

(1) To ensure the effectiveness of the control measures, monitoring of carbon-disulphide and hydrogen sulphide in air shall be carried out once at least in every shift and the record of the results so obtained shall be entered in a register specially maintained for the 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 duration of not less than 10 minutes and analyzed by an approved method. The locations where such monitoring is to be done shall be as directed by the Inspector-cum-Facilitator.

(3) If the concentration of either carbon disulphide or hydrogen sulphide exceeds the permissible limits for such vapour or gas as laid down in Rules, suitable steps shall be taken for controlling the concentrations in air of such contaminants. A report of such occurrences shall be sent to the Chief Inspector-cum-Facilitator forthwith.

**6. Prohibition to remain in fume process room –** No person during his intervals for meal, or rest shall remain in any room wherein fume process is carried on.

**7. Prohibition relating to employment of Adolescent –** 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) the occupier shall provide and maintain in good condition protective equipment as specified in the Table for use of persons employed in the processes referred to therein.

Table	
Name of Process	Name of Protective equipment
1	2
1 Dumping	Overalls, face-shields, gloves and footwear. All made of suitable material
2 Spinning	Suitable aprons, gloves and footwear
3 Process involving or likely to involve contact with 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 Chief Inspector-cum-Facilitator by an order in writing

(2) A suitable room, rooms or lockers shall be provided exclusively for the storage of all protective equipment supplied to workers and no such equipment shall be stored at any place other than the room, rooms or lockers so provided.

**9. Breathing apparatus –** (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 its administration, and
- (c) life belts.

(2) (a) The breathing apparatus and other appliances referred to in subparagraph (1) shall be maintained in good condition and kept in appropriate locations so as to be readily available.

(b) The breathing apparatus and other appliances referred to in clauses (a) and (b) of sub-paragraph (1) shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.

(c) A record of the maintenance of the condition of the breathing apparatus and other appliances referred to in sub-clause (1) shall be entered in a register provided for that purpose which shall be readily available for inspection by an Inspector-cum-Facilitator.

(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 labelled 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 for which breathing apparatus is necessary to be provided under sub-paragraph (1) unless he has been fully instructed in the proper use of that 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 fittings** – All electric fittings in any room in which carbon-disulphide is produced, used or given off or is likely to be given off into the work environment, other than a spinning room, shall be of flame-proof construction and all electric conduct or 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 at prominent locations in the plant prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked light or spark into such rooms.

Provided that fire, naked light or other means of producing a naked light of spark may be carried on in such room only when required for the purposes of the process itself under the direction of a 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 and in the processes covered by the schedule, adequate washing and bathing

places having a constant supply of water under cover at the rate of one such place for every 25 persons employed.

(2) The washing places shall have standpipes placed 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-cum-Facilitator.

(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 room.

#### **Cautionary Notice**

I. Carbon disulphide (CS<sub>2</sub>) and Hydrogen Sulphide (H<sub>2</sub>S) which may be present in this room are hazardous to health.

II. Follow safety instructions.

III. Use protective equipment and breathing apparatus as and when required.

IV. Smoking is strictly prohibited in this area.”

This notice shall be in a language understood by the majority of the workers and displayed where it can be easily and conveniently read. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice so displayed.

(2) Arrangements shall be made to instruct each worker employed in any room in which a fume process is carried on regarding the health hazards connected with their work and the preventive measures and methods to protect themselves. Such instructions shall be given on his first employment and repeated periodically.

(3) Simple and special instructions shall be framed to ensure that effective measures will be carried out in case of emergency involving escape of carbon 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 by medical officer** – (1) every worker employed in the processes specified in paragraph 1 shall be examined by a Medical officer within 15 days of his first employment. Such examinations shall include skin test for dermatitis and no worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in a manganese process shall be re-examined by a Medical officer at least once in every three calendar months and such examination shall, wherever the Medical officer considers appropriate, include all the tests in sub-paragraph (1).

(3) The Medical officer after examining a worker shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraph (1) and (2) including the nature and the results of these test, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

(6) No person who has been found unfit to work as said in sub-paragraph (5)

shall be 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.

**17. Exemptions** – If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for the protection of the workers in the factory, the Chief Inspector-cum-Facilitator may by a certificate in writing which he may in his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

### **SCHEDULE – XXVI**

#### **HIGHLY FLAMMABLE LIQUIDS AND FLAMMABLE COMPRESSED GASES**

**1. Application** – These rules will be applicable to all factories where highly flammable liquids or flammable compressed gases are manufactured, stored, handled or used.

**2. Definition** – For the purpose of this schedule –

(a) "highly flammable liquid" means any liquid including its solution, emulsion or

suspension which when tested in a manner specified by sections 14 and 15 of the Petroleum Act, 1934, (30 of 1934) gives off flammable vapours at a temperature less than 32 degree centigrade;

(b) "flammable compressed gas" means flammable compressed gas as defined in section 2 of the Static and Mobile Pressure Vessels (Unfired) Rules 1981 framed under the Explosive Act, 1884.

**3. Storage** –

(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 highly flammable liquid or flammable

compressed gas shall be always kept closed and all reasonably practicable steps shall be taken to contain or immediately drain off to a suitable container any spill or leak that may occur.

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

**4. Enclosed Systems for Conveying Highly Flammable Liquids –**

Wherever it is reasonably practicable, highly flammable liquids shall be conveyed within a factory in totally enclosed systems consisting of pipe lines, pumps and similar appliances from the storage tank or vessel to the point of use. Such enclosed systems shall be so designed, installed, operated and maintained as to avoid leakage or the risk of spilling.

**5. Preventing Formation of Flammable Mixture with Air –** Wherever there is a possibility for leakage or spill of highly flammable liquid or flammable compressed gas from any equipment, pipe line, valve, joint or other part of a system, all practicable measures shall be taken to contain, drain off or dilute such spills or leakage as to prevent formation of flammable mixture with air.

**6. Prevention of Ignition –**

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

- (a) All electrical apparatus shall either be excluded from the area of risk or they shall be of such construction and so installed and maintained as to prevent the danger of their being a source of ignition;
- (b) Effective measures shall be adopted for prevention of accumulation of static charges to a dangerous extent;
- (c) no person shall wear or be allowed to wear any foot wear having iron or steel nails or any other exposed ferrous materials which is likely to cause sparks by friction;



(d) Smoking, lighting or carrying of matches, lighters or smoking materials shall be prohibited;

(e) Transmission belts with iron fasteners shall not be used; and

(f) all other precautions, as are reasonably practicable, shall be taken to prevent initiation of ignition from all other possible sources such as open flames, frictional sparks, overheated surfaces of machinery or plant, chemical or physical-chemical reaction and radiant heat.

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

**8. Fire Fighting** – In every factory where highly flammable liquid or flammable compressed gas is manufactured, stored, handled or used, appropriate and adequate means of fighting a fire shall be provided. The adequacy and suitability of such means which expression includes the fixed and portable fire extinguishing systems, extinguishing material, procedures and the process of fire fighting, shall be to the standards and levels prescribed by the Indian Standards applicable, and in any case not inferior to the standards prescribed by Central Government under the Code.

**9. Exemptions** – If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for the protection of the workers in the factory, the Chief Inspector-cum-Facilitator may be a certificate in writing which he may in his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

## SCHEDULE – XXVII

### OPERATIONS IN FOUNDRIES

**1. Application** – Provisions of this schedule shall apply to all parts of factories where any of the following operations or processes are carried on:

(a) the production of iron castings or, as the case may be, steel castings by

casting in moulds made of sand, loam, moulding composition or other mixture of materials, or by 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 by shall mouldings, die-casting (including pressure die casting), centrifugal casting or continuous casting and any process incidental to such production; and

(c) the melting and casting of non-ferrous metal for the production of ingots, billets, slabs or other similar products, and the stripping thereof;

But shall not apply with respect to –

(a) Any process with respect to the smelting and manufacture of lead and the Electric Accumulators;

(b) Any process for the purpose of a printing works; or

(c) Any smelting process in which metal is obtained by a reducing operation or any process incidental to such operation; or

(d) The production of steel in the form of ingots; or

(e) Any process in the course of the manufacture of solder or any process incidental to such manufacture; or

(f) the smelting and casting of lead or any lead-based alloy for the production of ingots, billets, slabs or other similar products or the stripping thereof, or any process incidental to such melting, casting or stripping.

**2. Definition** – For the purpose of this schedule –

(A) "approved respirator" means a respirator of a type approved by the Chief Inspector-cum-Facilitator;

(B) "cupola of furnace" includes a receiver associated therewith;

(C) "dressing or fettling operations" includes stripping and other removal of adherent sand, cores, runners, risers, flash and other surplus metal from a casting and the production of reasonably clean and smooth surface, but does not include (a) the removal of metal from a casting when performed incidentally in connection with the machining or assembling of castings after they have been dressed or fettled, or (b) any operation which is knock-out operation

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within the meaning of this schedule;

(D) "foundry" means those parts of a factory in which the production of iron or steel or non-ferrous castings (not being the production of pig iron or the production of steel in the form of ingots) is carried on by casting in moulds made of sand, loam, moulding composition or other mixture of materials, or by shell moulding or by centrifugal casting in metal moulds lined with sand, or die casting including pressure die casting, together with any part of the factory in which any of the following processes are carried on as incidental processes in connection with and in course of, such production, namely, the preparation and preparation of moulds and cores, knock out operations and dressing or fettling operations;

(E) "knock-out operations" means all methods of removing castings from moulds and the following operations, when done in connection therewith, namely, stripping, coring-out and the removal of runners and risers;

(F) "pouring aisle" means an aisle leading from a main gangway or directly from a cupola or furnace to where metal is poured into moulds.

### **3. Prohibition of use of certain materials as parting materials –**

(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 percent by weight of the dry material :

Provided that this prohibition shall not prevent the following being used as a parting material if the material does not contain an admixture of any other silica –

- (a) Zirconium silicate (Zircon)
- (b) Calcined china clay
- (c) Calcined aluminous fireclay
- (d) 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 material or as a constituent in a parting material.

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**4. Arrangement and storage** – For the purposes of promoting safety and cleanliness in workrooms the following requirements shall be observed:-

- (a) moulding boxes, loam plates, ladles, patterns, pattern plates, frames, boards, box weights, and other heavy articles shall be so arranged and placed as to enable work to be carried on without unnecessary risk;
- (b) Suitable and conveniently accessible racks, bins, or other receptacles shall be provided and used for the storage of other gear and tools;
- (c) Where there is bulk storage of sand, fuel, metal scrap or other materials or residues, suitable bins, bunkers or other receptacles shall be provided for the purpose of such storage.

**5. Construction of floors –**

- (1) Floors of indoor workplaces in which the processes are carried on, other than parts which are of sand, shall have been surface of hard material.
- (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 wall shall be effectively cleaned by a suitable method to a height of not less than 4.2 metres from the floor at least once in every period of fourteen months. A record of the carrying out of every such effective cleaning in pursuance of this paragraph including the date (which shall be not less than five months nor more than nine months after the last immediately preceding washing, cleaning or other treatment.)
- (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 keep in good order.

**7. Manual operations involving molten metal –**

- (1) There shall be provided and properly maintained for all persons employed

on manual operations involving molten metal with which they are liable to be splashed, a working space for that operation –

- (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 all parts of which where any person walks while engaged in the operation shall be on the same level:

Provided that, where necessary to enable the operation to be performed without undue risk, nothing in this paragraph shall prevent the occasional or exceptional use of a working space on a different level from the floor, being a space provided with a safe means of access from the floor for any person while engaged in the operation.

#### **8. Gangways and pouring aisles –**

(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 gangway shall be provided and properly maintained which –

- (a) shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;
- (b) shall be kept, so far as reasonably practicable, free from obstruction;
- (c) if not used for carrying molten metal, shall be at least 920 millimetre in width;
- (d) if used for carrying molten metal shall be –
  - (i) Where truck ladles are used exclusively, at least 600 millimetres wider than the overall width of the ladle;
  - (ii) Where hand shanks are carried by not more than two men, at least 920 millimetres in width;
  - (iii) Where hand shanks are carried by more than two men, at least 1.2matters in width; and
  - (iv) Where used for simultaneous travel in both directions by men carrying

hand shanks, at least 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 sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;

(b) Shall be kept so far as reasonably practicable free from obstruction;

(c) if molten metal is carried in hand ladles or bulk ladles by not more than two men per ladle, shall be at least 460 millimetres wide, but where any moulds alongside the aisle are more than 510 millimetres above the floor of the aisle, the aisle shall be not less than 600 millimetres wide;

(d) if molten metal is carried in hand ladles or bulk ladles by more than two men per ladle, shall be at least 760 millimetres wide;

(e) if molten metal is carried in crane, trolley or truck ladles, shall be of a width adequate for the safe performance of the work.

(3) Requirements of sub-paragraph (1) and (2) shall not apply to any workroom or part of a workroom if, by reason of the nature of the work done therein, the floor of that workroom or, 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 end of any spout of a cupola or furnace, being a spout used for delivering molten metal, or within a distance of 2.4 metres from a vertical line passing through the nearest part of any ladle which is in position at the end of such a

spout, except, in either case, where it is necessary for the proper use of maintenance of a cupola or furnace that work should be carried out within that distance of that work is being carried out at such a time and under such conditions that there is no danger to the person carrying it out from molten metal which is being obtained from the cupola or furnace or is in a ladle in position at the end of the spout.

**10. Dust and fumes.-**

(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 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 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 such examination and test shall be entered in an register in Form-49 which shall be available for inspection by an Inspector-cum-Facilitator. Any defect found on any such examination and carrying out the examination and test to the occupier of the factory.

**12. Protective equipment –**

- (1) The occupier shall provide and maintain protective equipment specified for the protection of workers,
  - (a) suitable gloves to other protection for the hands for workers engaged in handling any hot material likely to cause damage to the hands by burn, scald, or 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 have dust concentration which cannot be dispelled quickly and effectively by the existing ventilation arrangements.
- (2) No respirator provided for the purposes of clause 1(b) 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 materials (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 arrangements for cleaning and 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-paragraph (1) and (4) and shall without delay report to the occupier, manager, or other appropriate person any defect in, or less of, the same.

### **13. Washing and bathing facilities –**

(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 at least 60 centimetres for every 10 such persons employed at any one time and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 60 centimetres or

(ii) at least one tap or stand pipe for every 10 such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 1.2 metres apart; and

(b) Not less than one half of the total number of washing places provided under clause (a) shall be in 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 skimming –** Dross and skimming removed from molten metal or taken from a furnace shall be placed forthwith in suitable receptacles.

**15. Disposal of waste** – Appropriate measures shall be taken for the disposal of all waste products from shell moulding (including waste burnt sand) as soon as reasonably practicable after the castings have been knocked-out.

**16. Material and equipment left out of doors** – All material and equipment left out of doors (including material, and equipment so left only temporarily or occasionally) shall be so arranged and placed as to avoid unnecessary risk. There shall be safe means of access to all such material and equipment and, so far as reasonably practicable, such access shall be by roadways or pathways which shall be properly maintained. Such roadways or pathways shall have a firm and even surface and shall, so far as reasonably practicable be kept free from obstruction.

**17. Medical examination by medical officer** – (1) every worker employed in the processes specified in paragraph 1 shall be examined by a Medical officer within 15 days of his first employment. Such examinations shall include skin test for dermatitis and no worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in a manganese process shall be re-examined by a Medical officer at least once in every 12 months and such examination shall, wherever the Medical officer considers appropriate, include all the tests in subparagraph(1).

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraph (1) and (2) including the nature and the results of these test, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) If at any time the Medical officer is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry

of his findings in those documents should also include the period for which he considers that the said person is unfit to work in the said process shall be provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Medical officer, in which case the person affected shall be suitably rehabilitated.

(6) No person who has been found unfit to work as said in sub-paragraph (5) shall be 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.

**19. Exemptions** – If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for the protection of the workers in the factory, the Chief Inspector-cum-Facilitator may be a certificate in writing which he may in his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

## SCHEDULE – XXVIII

### TEXTILE MACHINERY EXCEPT MACHINERY USE IN JUTE MILLS

**1. Application:** - This Schedule shall apply to the machinery in factories engaged in manufacturing or processing of textiles other than jute textiles excluding the machinery in factories engaged exclusively in the manufacture of synthetic fibres.

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

(a) “Calender” means a set of heavy roller mounted on vertical side frames and arranged to pass cloth between them which may have two to ten rollers or bowls some of which may be heated:

(b) “Card” means a machine consisting of cylinders various sizes and includes flats. Covered with card clothing and set in relation to each so that fibres in ; staple form may be Separated into individual relationship

(c) “Card clothing” means the material with which the surfaces of the cylinder, Doffer flats, etc. Of a card are covered and consists of a thick foundation material made of either textile fabrics, through which many fine closely spaced

specially bent wires or mounted saw toothed wires are passed;

(d) “Comber” means a machine for combing fibres of cotton. Wool etc. The essential parts whereof are device for feeding forward a fringe of fibres at regular intervals and an arrangement of combs or pins, which at the right time, pass through the fringe and by which tangled fibres. Short fibres, and nips are removed and the long fibres are laid parallel;

(e) “Combing machinery” means a general classification of machinery, including combers, silver lap machines. Ribbon lap machines and gill boxes, but excluding cards;

(f) “Continuous bleaching range” means a machine used for bleaching of cloth in rope or open-width form;

**Explanation:** (1) The cloth after wetting out, passes 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 J. Box uniform and rapid saturation of the cloth, with steam before it is packed down in the J. Box; the cloth, in a single strand rope form passes over a guide roll down the first arm of the “V” at the upper end of the second arm so that the cloth is rapidly saturated with steam 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 through 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 the peroxide solution;

**Explanation:-** 2) by slight modification of the form of the unit, the same process as is explained in Explanation (1), can be applied to open-width cloth;

(g) “embossing calender” means a calendar with two or more rolls, one of which is engaged for producing figure effects of various kinds on a fabric;

(h) “granett machine” means any number of types of machines for opening hard twisted waste of wool, cotton, silk, etc., essentially consisting of a locker-in-one or more cylinders each having a complement worker and stringer rolls, and a fancy roll and doffer.

**Explanation:** - The action of such machines is somewhat like that of a wool card, but it is much more severe in that the various rolls are covered with granett wire instead of card clothing;

(i) “gill box” means a machine used in the worsted system of manufacturing yarns which functions to arrange it in a parallel order and essentially, it consists of a pair of feed rolls and a series of follower where the followers move at a faster surface speed and perform as combine action;

(j) “in-running rolls” means any pair of rolls or drums between which there is a ‘nip’;

(k) “Inter-locking arrangement” means a device that prevents the setting in motion of a dangerous part of a machine or the machine itself while the guard, cover or door provided to safe- guard against danger is open or un-locked, and which will also hold the guard, cover or door closed and locked- while the machine or the dangerous part thereof is in motion;

(l) “Kier” means large metal vat, usually .a pressure type in which fabrics may be boiled out, bleached etc.

(m) “loom” means a machine for effecting the interlocking of two series of yarns crossing one another at right angles by which the warp yarns are wound on a warp beam and pass through headless and reads and the filling is shot across in a shuttle and settled in place by read and slay, and the fabric is wound on a cloth beam;

(n) “mule” means a type of spinning frame having a head stock and a carriage as its two main sections, the head stock is stationery and the carriage is movable and its carries the spindles which draft and spin the roving into yarn and extends over the whole of the machine, moves slowly toward and away from the head stock during the spinning operation;

(o) “mercerizing range” means a 3-bowl mangle, a tenter frame, and a number of boxes for washing and scouring, the whole set up where of is in a straight line and all parts operate continuously;

Note :-The combination is used to saturate the cloth with sodium hydroxide, stretch it while saturated and washing out most of the caustic before releasing tension;

(p) ‘Nip’ means the danger zone between two rolls or drums, which by virtue of their positioning and movement create a nipping hazard;

(q) “Openers and pickers” means a general classification of machinery, which includes breaker pickers, intermediate pickers, finisher pickers, single process

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pickers, willow machines, card and picker waste cleaners, thread extractors shredding machines, roving waste openers, shoddy pickers, bale breakers, feeders, vertical openers, lattice cleaners horizontal cleaners and any similar machinery equipped with either cylinders, screen section calender section, rollers or beaters used for the preparation of stock for further processing;

(r) “paddler” means a trough for a solution and two or more squeeze rolls between which cloth passes after being passed through a mordent or dye bath;

(s) “Plating machine” means a machine used to lay cloth into folds of regular length for convenience of subsequent process or use;

(t) “ribbon lapper” means a machine or a part of a machine used to prepare laps for feeding a cotton comb the purpose of which is to provide a uniform lap in which the fibers have been straightened as much as possible;

(u) “rotary staple cutter” means a machine consisting of one or more rotary blades used for the purpose of cutting textile fibres into staple lengths;

(v) “roller printing machine” means a machine used for printing fabrics and consisting of a large central cylinder, or pressure bowl around the lower part of the perimeter of which is placed a series of engraved color rollers (each having a color trough), a furnisher roller, doctor blades, etc.;

(w) “silver lapper” means a machine or a part of a machine in which a number of parallel card silvers are drafted slightly, laid side by side in a compact sheet and wound into a cylindrical package;

(x) “starch mangle” means a mangle which is use specifically for starching cotton goods, and generally consists of two large rolls and a shallow open vat with several immersion rolls;

(y) “sanforizing machine” means a machine consisting of a large steam-heated cylinder and endless, thick woollen felt blanket which is in close contact with the cylinder for most of its perimeter and an electrically heated shoe which presses the cloth against the blanket while the later is in a stretched condition as it curves around feed-in roll;

(z) “shearing machine” means a machine used for shearing cloth in which cutting action is provided by a number of steel blades spirally mounted on a roller which rotates in close contact with a fixed edge blade.

(aa) “singeing machine” means a machine which comprises of a heated roller

a plate, or an open gas flame by which the cloth or yarn is rapidly passed over the roller or the plate or through the open gas flame to remove fuzz of hairiness by burning;

(ab) “slasher” means a machine used for applying a size mixture to warp yarns which essentially consists of a stand for holding section beams a size box, one or more cylindrical dryers or an enclosed hot air dryer, and a beaming end for winding the yarn on the loom beams;

(ac) “tenter frame” means a machine for drying cloth under tension which essentially consists of a pair of endless travelling chains fitted with clips of fine pins and carried on tracks and the cloth is firmly held at the selvages by the two chains which diverge as they move forward so that the cloth is brought to the desired width;

(ad) “warper” means a machine for preparing and arranging the yarn intended for the warp of fabric, specifically a beam warper; and

(ae) “Water mangle” means a calendar having two or more rolls used for squeezing water from fabrics before drying or for the finishing of various fabrics.

### **3. General safety requirements;-**

(1) Every textile machine shall be provided with individual mechanical or electrical means for starting and stopping such machines and the belt shifter on machines driven by belts and shafting should be provided with a belt shifter lock or an equivalent positive locking device.

(2) 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.

(3) All belts, pulleys, gears, chains, sprockets wheel and other dangerous moving parts of machinery which either form part of the machinery or are used in association with it, shall be securely guarded.

### **4. Openers and pickers ;-( 1) In all operating or picker machinery;-**

(i) Beaters and other dangerous parts shall be securely fenced by guards so as to prevent contact with them; and

(ii) Guards and doors or covers of openings giving access to any dangerous part of the machinery shall be provided with inter-locking arrangement:

Provided that in the case of doors or covers of openings giving

access to any dangerous part, other than beater covers, instead of the interlocking arrangement. Such openings may be so fenced by guards which prevent access to any such dangerous part and which is either kept positively locked in position or fixed in such a manner that it cannot be removed without the use of hand tools.

(2) The feed rolls on all opening and picking machinery shall be covered with a guard designed to prevent the Operator from reaching the nip while the machinery is in operation.

(3) The lap forming rollers shall be fitted with a guard or cover which shall prevent access to the nip at the intake of the lap roller and fluted roller as long as the weighted rack is down and the guard or cover shall be so locked that it cannot be raised until the machine is stopped, and machine cannot be started until the Cover of guard is closed:

Provided that the foregoing provision shall not apply to the machines equipped with automatic lap forming devices:

Provided further that any such machine equipped with automatic lap forming device shall not be used unless the automatic lap forming device is in efficient working order.

**5. Cotton Cards.**-(1) all cylinder doors shall be secured by an interlocking arrangement which shall prevent the door being opened until the cylinder has ceased to revolve and shall render it impossible to restart the machine until the door has been closed:

Provided that the latter requirement in respect of the automatic locking device shall not apply while stripping or grinding operations are carried out:

Provided further that stripping or grinding operation shall be carried out only by specially trained adult workers wearing tight "fitting clothing, whose names have been recorded in the register in Form-48.

(2) The licker-in shall be guarded so as to prevent access to the dangerous parts.

(3) Every card shall be equipped with an arrangement that would enable the card cylinder to be driven by power during stripping or grinding operations without having to either shift the main belt to the fast pulley of the machine or



dismantle the interlocking mechanism and such an arrangement shall be used only for strip or grinding operations.

**6. Garnett Machines.** (1) Garnett lick-ers shall be enclosed and the garnett fancy rolls shall be enclosed by guards and shall be installed in a way that keeps work rolls reasonably accessible for removal or adjustment.

(2) The underside of the garnett shall be guarded by a screen mesh or other form of enclosures to prevent access.

**7. Gill boxes.**-(1) The feed and shall be guarded so as to prevent fingers being caught in the pins of the intersecting fillers.

(2) All nips of in-running rolls shall be guarded by Suitable nip guards conforming to the following specifications.

Any opening which the guard may permit when fitted in position shall be so restricted with respect to the distance of the opening from any nip point through that opening from any nip point through that the maximum width of the opening shall not exceed the following :-

Distance of opening from nip point	Maximum width of opening
0 to 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 aid ribbon lappers (cotton).** – The cylinder drums and the laps pool shall be provided with a guard to prevent access to the nip between the in-running rolls.

**9. Speed frame Jack Box** wheels at the head stock shall band guard shall have interlocking arrangement.

**10. Spinning Mules.**-Wheels on spinning mule carriages shall be provided with substantial wheel guards, extending to within 6 mm of the rails.

**11. Warpers.**- Swivelled double-bar gates shall be installed on all warpers

operating in excess of 410 meters minimum and shall have interlocking arrangements, except for the purpose of inching or jogging.

Provided that top and bottom bars of gates shall be at least 1.05 and 0.53 meters high from the floor or working plate form, and gate shall be locked 38 mm from vertical tangement to the bean head.

**12 Slashers: - (1) Cylinder dryers:-** a) All open nips of in running rolls shall be guarded by nip guards conforming to the requirements in clause 7.

b) When slashers are operated by control levers, these levers shall be connected to a horizontal bar or treadle located not more than 170mm above the floor to control the operation from any point.

c) Slashers operated by such button control shall have stop and start buttons located at each end of the machine, and additional buttons located on both sides of the machine at the size box and the delivery end and if calendar rolls are used, additional buttons shall be provided at both sides of machines at points near the nips, except when slashers are equipped with an enclosed dryer as in such clause (b).

**2 Enclosed hot air dryer –**

(a) All open nips of the top squeezing rollers shall be guarded by nip guards conforming to the requirement specified in sub-clause (2) of clause 7.

(b) When slashers are operated by control layers, these levers shall be connected to a horizontal bar or treadle located not more than 170 cm. Above the floor to control the operation from any point.

(c) Slashers operated by push-button control shall have stop and start buttons located at each end of the machine and additional stop and start buttons located on both sides of the machine at intervals spaced not more than 1.83 meters on centers.

**13 Looms –**

(a) Each loom shall be equipped with suitable guards designed to minimize the danger from flying shuttles.

(b) Beam weights for tension in beam shall be of such construction so as prevent it from falling during its adjustment.

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**14 Valves of Kiers, tanks, and other containers. –**

(a) Each valve controlling the flow of steam injurious gases or liquids into a kier or any other tank or container into which a person is likely to enter in connection with a process, operation, maintenance or for any other purpose, shall be provided with a suitable lock the valve securely in the closed position and retain the key with him before entering the kier tank or container.

(b) Wherever boiling tanks, caustic tanks and any other containers from which liquids, which are hot, corrosive or toxic, may overflow or splash, are so located that the operator cannot see the contents from the floor or working areas, emergency shut off valves which can be controlled from a point not subject to danger of splash shall be provided to prevent danger.

**15. Shearing machines:** - All revolving blades on shearing machines shall be guarded so that the opening between the cloth surface and the bottom of the guard will not exceed 10 mm.

**16. Continuous bleaching range (cotton and rayon):-** The nip of all in running rolls on open-width bleaching machine rolls shall be protected with a guard to prevent the worker from being caught at the nip and the guard shall extend across the entire length of the nip.

**17 Mercerizing range (piece goods) :-**

(1) A stopping device shall be provided at each end of the machine.

(2) A guard shall be provided at each end of the frame between the in running chain and the clip opener.

(3) A nip guard shall be provided for the in-running rolls of the mangle and washers and the guard shall conform to the requirements specified in sub-clause (2) of clause 7.

**18 Tenter frames:-**

(1) A stopping device shall be provided at each end of the machine.

(2) A guard shall be provided at each end of the machine frame at the in running chain and clip opener.

**19 Paddlers. –**

(1) Suitable nip guards conforming to the requirements specified in sub clause (2) of clause 7 shall be provided to all dangerous in-running rolls.

**20 Centrifugal extractors.-**

- (1) Each extractor shall be provided with a guard for the basket, and the guard shall have interlocking arrangement.
- (2) Each extractor shall be equipped with a mechanically or electrically operated brake to quickly stop the basket when the power driving the basket is shut off.

**21. Squeezer of wringer extractor, water mangle, starch mangle, back washer (worsted yarn) crabbing machines and decanting machine:-** All in-running rolls shall be guarded with nip guards conforming to the requirements specified in sub-clause (2) of clause 7.

**22 Sanforizing and palmer machine:-** (i) Nip guards shall be provided on all accessible in-running rolls and these shall conform to the requirements specified in sub-clause (2) of clause 7.

(ii) Access from the sides to the nips of running rolls should be fenced by suitable side guards.

(iii) A safety trip rod, cable or wire center cord shall be provided across the front and back of all palmer cylinders extending the length of the face of the cylinder, which operate readily whether pushed or pulled and the safety trip shall not be more than 170 cm. Above the level at which the operation stands and shall be readily accessible.

**23 Rope washers:-** (1) Splash guards shall be installed in all rope washers unless the machine is so designed as to prevent the water or liquid from splashing the operator, the floor or working surface.

(2) A safety trip rod, cable or wire centre cord shall be provided across the front and back of all rope washers extending the length of the face of the washer which shall operate readily whether pushed or pulled and the safety trip shall be not more than 170 cm. Above the level on which the operator stands and shall be readily accessible.

**24 Laundry washer tumbler or shaker:**

(1) Each drying tumbler, each double cylinder shaker or clothes tumbler, and each washing machine shall be equipped with an interlocking arrangement which will prevent the power operation of the inside cylinder when the outer door on the case or shall is open, and which will also prevent the outer door in

the case or shall from being opened without shutting off the power and the cylinder coming to a stop but which should not prevent the movement of the inner-cylinder by means of a hand operated mechanism or an inching device.

(2) Each closed barrel shall also be equipped with adequate means for holding open the doors or covers of the inner and outer cylinders, of shells while it is being loaded or unloaded.

**25. Printing machine (roller type) –**

(1) All in-running rolls shall be guarded by nip guards conforming to the requirements specified in sub-clause(2) of clause 7

(2) The engraved roller gears and the large crown wheel shall be guarded.

**26. Calendars –**The Nip at the in-running side of the rolls shall be provided with a guard extending across the entire length of the nip and arranged to prevent the fingers of the workers from being pulled in between the rolls or between the guard and the rolls, and so constructed that the cloth can be fed into the rolls safely.

**27. Rotary staple cutters: -** The cutter shall be protected by a guard to prevent hands reaching the cutting zone.

**28. Plating machines.-** Access to the trap between the knife and card bar shall be prevented by a guard.

**29. Hand baling machine. –**An angle iron handle-stop guard shall be installed at right angle to the frame of the machine, the stop guard of which shall be so designed and so located that it will prevent the handle from travelling beyond the vertical position should the handle slip from the operator's hand when the pawl has been released from the teeth of the take-up gear.

**30 Flat-Work ironer.-** Each flat-work or collar ironer shall be equipped with a safety bar or other guard across the entire front of the feed or first pressure rolls, so arranged that the striking of the bar or guard by the hand of the operator or other person will stop the machine. The guard shall be such that the operator or other person cannot reach into the rolls without removing the guard. This may be either a vertical guard on all sides or a complete cover. If a vertical guard is used, the distance from the floor or working platform to the top of guard shall not be less than 1.83 meters.”

**31. Medical examination and records:-**

(1) Every worker employed on machinery to which this schedule applies shall be examined by a medical officer within 15 days of his first employment. Such examination shall include pulmonary test, immunoglobulin test, Audiometry test etc. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the medical officer

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

(3) The medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub paragraphs(1) and (2), including the nature and the results of the tests, shall also be entered by the medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) if at any time medical officer is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker he 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 Medical officer, in which case the person affected shall be suitably rehabilitated.

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

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**SCHEDULE – XXIX**  
**PROCESS OF MELTING IN INDUCTION**  
**FURNACE**

**1. Application:**

Provisions of this schedule shall apply to all parts of factories operations where melting of metal is done in induction furnace and other allied processes are carried on.

**2. Definitions:**

- (1) “Induction Furnace” means furnace in which a strong magnetic field created by passing an electric current through a coil wrapped around the furnace. The magnetic field in turn creates a voltage across, and subsequently an electric current through, the metal to be melted.
- (2) “Coil” means coil of Induction Furnace
- (3) “Ladle” means equipment used to carry melted metal
- (4) “Mould” means moulds made of steel, sand, loam, moulding composition or other mixture of materials.
- (5) “Personal Protective Equipment” Personal Protective Equipment (PPEs) refers to protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection.
- (6) “Refractory” means lining of refractory bricks made in pit

**3. Arrangement and storage –** For the purposes of promoting safety and cleanliness in workrooms the following requirements shall be observed:-

- (a) moulding boxes, loam plates, ladles, patterns, pattern plates, frames, boards, box weights, and other heavy articles shall be so arranged and placed as to enable work to be carried on without unnecessary risk;
- (b) Suitable and conveniently accessible racks, bins, or other receptacles shall be provided and used for the storage of other gear and tools;
- (c) Where there is bulk storage of sand, fuel, metal scrap or other materials or residues, suitable bins, bunkers or other receptacles shall be provided for the purpose of such storage.

**4. Construction, maintenance of platform and floors –**

- (1) The platform of furnace should be of good construction, sound material and adequate strength to withstand explosion
- (2) The platform must be of adequate size to accommodate persons working there and raw material to be charged
- (3) The platform must be provided with at least two stairs
- (4) Floors of indoor workplaces in which the processes are carried on, other than parts which are of sand, shall have been surface of hard material.
- (5) 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.
- (6) All parts of the surface of the floor of any such indoor workplace which are of sand shall, so far as practicable, be maintained in an even and firm condition.

**5. Authorised person : –** (1) No person except those authorised to work on platform or near furnace shall be allowed on the platform or near furnace.

(2) Person covered under exception of sub-rule (1) must be trained and provided with prescribed personnel protective equipments.

(3) No person shall carry out any work within a distance of 4 metres from a vertical line passing through the delivery end of any spout of a furnace, being a spout used for delivering molten metal, or within a distance of 2.4 metres from a vertical line passing through the nearest part of any ladle which is in position at the end of such a spout, except, in either case, where it is necessary for the proper use of maintenance of furnace that work should be carried out within that distance of that work is being carried out at such a time and under such conditions that there is no danger to the person carrying it out from molten metal which is being obtained from the cupola or furnace or is in a ladle in position at the end of the spout.

**6. Maintenance and examination of exhaust plant –**

- (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 such examination and test shall be entered in an register in Form-49 which shall be available for inspection by an Inspector-cum-Facilitator. Any defect found on any such examination and carrying out the examination and test to the occupier of the factory.

#### **7. Ladle**

- (1) Before the ladle is placed for pouring the hot liquid metal, it shall be thoroughly inspected
- (2) Place the ladle below the spout.
- (3) Before pouring is started, it shall be ensured that:
  - (a) Only minimum required nos. of persons shall be present.
  - (b) They all shall use PPEs like face shield, flame retardant suit, anklets, goggles, hand gloves, helmets and safety shoes.
- (4) Ladle shall be removed only after clearance from the Furnace In-charge.
- (5) Ladle shall not be transported in tilted condition.

#### **8. Operation and Maintenance of furnace:**

- (1) The occupier shall operate the furnace as per instructions supplied by manufacturer.
- (2) The occupier shall keep the maintenance of furnace as per maintenance schedule supplied by manufacturer.
- (3) The coil should be checked at regular intervals
- (4) The refractories shall be changed at regular interval

#### **9. Work Permit**

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

#### **10. Washing facilities –**

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

**11. Protective equipment –**

The occupier shall provide and maintain suitable PPEs for all persons employed in process as specified in sub-rule (2).

**12. Prohibition of employment of pregnant Woman and Adolescent –**

No pregnant woman or adolescent shall be employed in any of the process covered by this schedule

**13. Medical examination by medical officer –** (1) every worker employed in the processes specified in paragraph 1 shall be examined by a Medical officer within 15 days of his first employment. Such examinations shall include skin test, Audiometric test, Pulmonary test and no worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Medical officer.

(2) Every worker employed in a manganese process shall be re-examined by a Medical officer at least once in every 12 months and such examination shall, wherever the Medical officer considers appropriate, include all the tests in subparagraph (1).

(3) The Medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub-paragraph (1) and (2) including the nature and the results of these tests, shall also be entered by the Medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

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

suitably rehabilitated.

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

**14. Exemptions** – If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for the protection of the workers in the factory, the Chief Inspector-cum-Facilitator may be a certificate in writing which he may in his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

## **SCHEDULE – XXX**

### **WOODWORKING MACHINERY**

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

- a) Woodworking machine means a circular saw, band saw, planning machine, chain mortising machine or vertical spindle moulding machine, operating on wood or cork.
- b) Circular saw means a circular saw working in a bench (including rack bench) but does not include a pendulum or similar saw which is moved towards the wood for the purpose of cutting operation.
- c) Band saw means a band saw, the cutting portion of which runs in vertical direction but does not include a log saw or band resaving machine.
- d) Planning machine means a machine for overhand planning or thicknessing or for both operations.

**2 Stopping and starting device:** - An efficient stopping and starting device shall be provided on every woodworking machine. The control of this device shall be in such a position as to be readily and conveniently operated by the person in charge of the machine.

**3 Space around machine:** - The space surrounding every woodworking machine in motion shall be kept free from obstruction.

**4 Floors:-** the floor surrounding every woodworking machine shall be

maintained in good and level condition, and shall not be allowed to become slippery, and as far as practicable shall be kept free from chips or other loose material,

**5 Training and Supervision:-**

(1) No person shall be employed at a woodworking machine unless he has been sufficiently trained to 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 woodworking machine shall be fully and carefully and the precautions to be observed to secure safe working of the machine.

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

(A) Behind and 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 as are of a circle having a radius of not exceeding the radius of largest saw used on bench.

(ii) The Knife shall be maintained as close as practicable to the saw, having regard to the nature of the work being done at the time and at the level of the bench table the distance between the front edge of the knife and the teeth of the saw shall not exceed 12 mm.

(iii) For a saw of a diameter of less than 0.6 meter, the knife extend upwards from the bench table to within 25 mm<sup>3</sup> of the top of the saw, and for a saw of a diameter of 0.6 meter or over shall extend upwards from the bench teeth of the saw shall not exceed 12 mm.

(B) The top of the saw shall be covered by a strong and easily adjustable guard with a flange at the side of the saw farthest from the fence. The guard shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.

(C) The part of the saw below the bench table shall be protected by two plates of metal or other Suitable material one on each side of the saw; such plates shall not be more than 15 cm apart, and shall extend from the axis of the outwards to a distance of not less then.5cm. Beyond the teeth of the saw-

Metal plates, if not headed, shall be of a thickness of at least .25 cm. Or if headed be of a thickness of at least.125 centimeters'i.

**7. Push Sticks:** - A push stick or other suitable appliance shall be provided for use at every circular saw and at every vertical spindle molding machine to enable the work to be done without unnecessary risk.

**8. Band Saws:** - Every band saw shall be guarded as follows:-

- Both sides of the bottom pulley shall be completely encased by sheet or expanded metal or other suitable material.
- The front of the top pulley shall be covered with sheet or expanded metal or other suitable material.
- 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-**

(I) 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.

(II) Every planning machine used for over hand planning shall be provided with a "bride" guard capable of covering the full length and breadth of the cutting slot in the bench, and so constructed as to be easily adjusted both in a vertical and horizontal direction.

(III) The feed roller of every planning machine used for thicknessing except the combined machine for overhand planning and thicknessing, shall be provided with an efficient guard.

**10. Vertical spindle moulding machines:-**

- 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.
- The wood being moulded at vertical spindle moulding shall. If practicable be held in a jig or holder of such construction as to reduce as far as possible the risk of accident to the worker.

**11. Chain mortising machines:** -The chain of every chain mortising machine shall be provided with a guard which shall enclose the cutters as far as practicable.

**12. Adjustment and maintenance of guards.** The guards and other appliances required under this Schedule shall be:-

maintained in an efficient state. Constantly kept in position while the machinery in motion, and So adjusted as to enable the work to be done without unnecessary risk.

**13. Exemption:-** Paragraphs 6,8,9, and 10 shall not apply to an woodworking machine in respect of which it can be proved that other safeguards are provided, maintained and used which render the machine as safe as it would be if guarded in the manner prescribed in this Schedule.

**14. Medical examination and records:-**

(1) Every worker employed on machinery to which this schedule applies shall be examined by a medical officer within 15 days of his first employment. Such examination shall include pulmonary test, immunoglobulin test, Audiometry test etc. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the medical officer.

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

(3) The medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub paragraphs(1) and (2), including the nature and the results of the tests, shall also be entered by the medical officer in a health register in Form-47.

(4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.

(5) if at any time medical officer is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker he 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 Medical officer, in which case the person affected shall be suitably rehabilitated.

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

**15. Appointment of person on machinery:-**

(1) No person shall be allowed to work on machinery specified in this Schedule unless he:-

- (a) has attained the age of eighteen years;
  - (b) has been trained in accordance with the sub-paragraph (2); and
  - (c) The name of every such person has been entered in a register in Form-48.
- (2) The training shall include suitable and sufficient practical instructions in the matter in relation to each type of woodworking machinery and safety device.

**SCHEDULE – XXXI**

**RUBBER MILLS**

**1. Installation of machines:** - Mills for breaking down, cracking, grating, mixing, refining and warming rubber or rubber compounds shall be so installed that the top of the front roll is not less than 85cm. Above the floor or working level. Provided that in existing installations where the top of the front roll is below this height a strong rigid distance bar shall be fitted across the front of the machine in such position that the operator cannot reach the nip of the rolls.

**2. Safety devices:** - (1) Rubber Mills shall be equipped with-

- Hoppers so constructed or guarded that it is impossible for the operator to come into contact in any manner with the nip of the rolls.
- 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 1.75 meter 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 person and if any defect is disclosed by such examination and test the mill shall not be used until such defect has been remedied.

### **SCHEDULE – XXXII**

#### **CENTRIFUGAL MACHINES**

**1. Definition:** -“Centrifugal Machines” include centrifugal extractors, separators and driers.

**2 Every part of a centrifugal machine shall be**

- (a) Of good design and construction and of adequate strength;
- (b) Properly maintained; and
- (c) examined thoroughly by a competent person at regular intervals.

**3. Interlocking guard for drum or basket-**

- The cage housing, the rotating drum or basket of every centrifugal machine shall be provided with a strong lid. The design, construction of the cage as well as the lid should be such that no access is possible to the drum or basket when the lid is closed.
- Every centrifugal machine shall be provided with an efficient interlocking device that will effectively prevent the lid referred to in sub-paragraph (1) from being opened while the drum or basket is in motion and prevent the drum or basket being set in motion while the lid is in the open position.

**4. Braking arrangement:-**Every centrifugal machine shall be provided with an effective arrangement capable of bringing the drum or basket to rest within as short a period of time as reasonably practicable after the power is cut off.

**5. Operating speed:-** No centrifugal machine shall be operated at a speed in excess of the manufacturers rating which shall be legibly stamped at easily visible places both on the inside of the basket and on the outside of the machine casing.

**6. Exceptions:—**Sub-paragraph (2) of paragraph 3, paragraphs 4 and 5 shall not apply in case of top lung machines or similar machines used in the sugar manufacturing industry.



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**SCHEDULE – XXXIII****POWERS PRESSES**

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

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

- “approved” means approved by the Chief Inspector-cum-Facilitator;
- “fixed fencing” means fencing provided for the tools of a power press being fenced which has no moving part associated with or dependent upon the mechanism of a power and includes that part of a closed tool which acts as a guard;
- “power press” means a machine used in metal or other industries for moulding, pressing, blanking, raising, [ drawing and similar other purposes;
- “safety device” means the fencing and any other safeguard provided for the tools of a power press.

**3. Starting and stopping mechanism:** - The starting and stopping mechanism shall be provided with a safety stop so as to prevent over running of the press or descent of the ram during tool shutting. Etc.

**4. Protection of tool and die:-**

- Each press shall be provided with a fixed guard with slip plate on the underside enclosing the front and all sides of the tool.
- Each die shall be provided with a fixed guard surrounding its front and sides, and extending to the back in the form of a tunnel through which the pressed article falls to the rear of the press.
- The design, construction and mutual position of the guards referred to in sub-Para-graphs (1) and (2) shall be such as to preclude the possibility of the worker’s hand or fingers reaching the danger zone.
- The machine shall be fed through a small aperture at the bottom of the dye guard, but a wider aperture may be permitted for second or subsequent operations if feeding is done through a chute.
- Notwithstanding anything contained in sub-paragraphs (1) and (2) an automatic or an interlocked guard may be used in place of a fixed guard, but where such guards are used they shall be maintained in an efficient working condition and if any guard develops a defect, the power shall not be operated unless the defect guard is removed.

**5. Appointment of persons to prepare power presses for use:-**

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

- (a) has attained the age of eighteen years;
- (b) has been trained in accordance with the sub-paragraph (2); and
- (c) has been appointed by the occupier of the factory to carry out those duties in respect of the class or description of power press or the class or description of safety device, as the case may be belongs; and the name of every such person shall be entered in a register in Form-48.

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

**6. Examination and testing of power presses and safety devices:**

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

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

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

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

- (a) Name of the occupier of the factory;

- 
- (b) Address of the factory;
  - (c) Identification number or mark sufficient to identify the power press or the safety device, as the case may be;
  - (d) Date on which the power press or the safety device was first taken into use in the factory;
  - (e) The date of each periodical thorough examination carried out as per requirements of sub-paragraph (2) above;
  - (f) Particulars of any defects affecting the safe working of the power press or the safety device found during such thorough examinations and steps taken to remedy such defects.

**7. Defect disclosed through examination and tests:-**

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

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

( b) the said defect may become a cause of danger to workers and in consequence the power press or safety device as the case may be, ought not to be used after the expiration of a specified period unless the said defect has been remedied, such defect shall, as soon as possible after the completion of the examination and test, be notified in writing by the competent person to the occupier of the factory and in the case of a defect falling within clause (b) of this sub-paragraph, such notification shall include

the period within which, in the opinion of the competent person, the defect ought to be remedied.

(2) In every case where notification has been notified under this paragraph, a copy of the report made under sub-paragraph, a copy of the report made under sub-paragraph (4) of paragraph 6 shall be sent by the competent person to the Inspector-cum-Facilitator of the concerned area within fourteen days of the completion of the examination and test.

( 3) Where any such defect is notified to the occupier in accordance with the foregoing provisions of this paragraph, the power press or safety device as the

case may be, having the said defect, shall not be used;

(a) in the case of a defect falling within clause (a) of sub-paragraph (1) until the said defect has been remedied; and

(b) in the case of defect falling within clause (b) of sub-paragraph (1) until the said defect has been remedied after the expiration of the specified period.

(4) As soon as is practicable, after any defect of which notification has been notified under sub-paragraph (1), has been remedied, a record shall be made by or on behalf of the occupier stating the measures by which and the date on which the defect was remedied.

#### **8. Inspection and test of safety devices:**

(1) No power press shall be used after the setting, resetting or adjustment of the tools thereon unless a person appointed or authorized for the purpose under paragraph 5 has inspected and tested every safety device thereon while it is in position on the said power press and has certified it to in order:

Provided that no inspection, test and certificate shall be required where any adjustment of the tools has not caused or resulted in any alteration to or disturbance of any safety device on the power press, and, if after the adjustment of the tools, the safety device remain, in the opinion of the said person in efficient working order.

(2) Every power press and every safety devices thereon while it is in position on the said power press shall be inspected and tested by a trained person every day.

#### **9. Defects disclosed during an inspection and test:-**

(1) Where it appears to any person as a result of any inspection and test carried out by him under paragraph 8 that any necessary safety device is not in proper position on a power press or that any safety device which is in position on a power press, is not in his opinion suitable he shall notify the same to the manager forthwith.

(2) Except as provided in sub-paragraph (3) where any defect is disclosed in a safety device any inspection and test under paragraph 8, the person carrying out the inspection and test shall notify the same to the manager forthwith.

(3) Where any defect in a safety device is the subject of a notification in

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

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

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

**12 Exemptions:-**

(1) If in respect of any factory, the Chief Inspector-cum-Facilitator of Factories is satisfied that owing to the circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this schedule are not necessary for the protection of the workers employed on any power press or in the factory, the Chief Inspector-cum-Facilitator may by a certificate in writing (which he 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) Where such exemption is granted, a legible copy of the certificate, showing the conditions if any, subject to which it has been granted, shall be kept posted in the factory on a place where it may be conveniently read by the persons employed.

**SCHEDULE – XXXIV**

**SHEARS SLITTERS AND GUILLOTINE MACHINES**

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

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

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

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

## **2 Guillotine and Shears:-**

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

Provided that in case of machines used in the paper printing and allied industries, where a fixed barrier metal guard is not suitable on account of the height and volume of the material being bed, there shall be provided suitable starting devices which require simultaneous action of both the hands of the operator or an automatic device when will remove both the hands of the operator from the danger zone at every descent of the blade.

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

(3) Power-driven guillotine cutters, except continuous feed trimmers, shall be equipped with:-

(a) starting devices which require the simultaneous action of both hands to start the cutting motion and of at least one hand control during the complete stroke of the knife: or

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

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

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

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

### **3. Slitting Machine:-**

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

- (a) automatically adjust themselves to the thickness of the material; or
  - (b) be fixed or manually adjusted so that the space between the bottom of the guard and the material will not exceed 6 mm (1/4inch) at any time.
- (2) Portions of blades underneath the tables or benches of slitting machines shall be covered by guards.

**4. Index cutters and Vertical Paper Slotters:-** Index cutter, and other machines for cutting strips from the ends of books, and for similar operations, shall be provided with fixed guards, so arranged the fingers of the operators cannot come between the blades and the tables.

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

- (a) suitable guard, fastened to the machines in front of the knives and provided with slots or perforations to afford visibility of the operations ;or
- (b) other guards equally efficient for the protection of the fingers of the workers.

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

**SCHEDULE – XXXV**

**THERMIC FLUID HEATERS**

1. All heaters shall be of such construction that coils are removal for periodic cleaning, visual inspection and hydraulic test.
2. Suitable arrangements shall be made for cooling the furnace effectively in case of power failure.
3. Before restarting the furnace, it shall be effect purged.
4. Velocity or flow of the thermic fluid shall not be allowed to fall below the minimum recommended by the manufactures while the heater is in operation.
5. The thermic fluid shall be circulated in a closed circuit formation with an expansion–cum-deaerator tank. This tank shall be located outside the shed where the heater is installed
6. Every heater shall be provided with a photo-resistor actuated auto-visual alarm to indicate flame failure and automatic burner cut
7. The stack temperature monitor-cum-controller with audiovisual alarm shall be provided so as to warn operator in case the outlet temperature exceeds the specific minimum.
8. Where inspection doors are provided on the furnace they shall be interlocked with the burner itself so that they cannot be opened until burner is shut of and furnace is cooled sufficiently.
9. All heaters shall also be provided with the following safety devices:-
  - (i) Level control in the expansion tank
  - (ii) temperature control of thermic fluid;
  - (iii) differential pressure switch on the outlet line of the heater tubes;  
and
  - (iv) temperature control device for the fuel oil supply to the burner.
10. All devices specified in paragraph (9) shall have interlocking arrangement with burner so that in case of any predetermined limits being crossed, the supply of fuel and air shall automatically be cut-off.
11. All safety interlock when operated shall be indicated on the control panel of the heater by a suitable audio visual alarm



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12. Every heater unit shall be provided as a standard accessory an arrangement for shifting with low pressure steam or nitrogen for putting out the fire.

13. Electoral panel for the heater shall be located near the heater but not so close as to be exposed to spilling or leaking oil.

14. The heater shall be located in a place partitioned off with fire proof material from other manufacturing activities.

15. Explosion vent shall be installed that release thanks place at safe location.

16. The heater coil shall be subjected to pressure test by competent person once at least in every twelve months. The test pressure shall not be less than twice the operating pressure.

17. If repairs are carried out to the coil, it shall be tested before taking it into use.

18. The thermic fluid shall conform to the specifications specified by the manufacturers and shall be tested by competent person for suitability at least once in every three months period. Such test shall include test for acidity, suspended matter, ash contents, viscosity and flash point.

19. Cleaning of internal surface of the heater so at check up of refractory surface on the inside shall be carried out every month or as often as required depending upon working conditions. The coils shall be removed and surface of the coils cleaned thoroughly once at least in a period of six months. The burner, nozzles, oil filters and pumps shall be cleaned once a week during the period of use.

20. A separate register containing the following information shall be maintained:-

- (a) weekly checks carried out confirming the effectiveness of the interlock;
- (b) weekly checks confirming that all accessories are in good state of repairs; and
- (c) information regarding fuel , oil temperature, pressure, thermic fluid inlet/outlet pressure and temperature, fuel gas temperature, recorded at four hourly intervals.

21. The heater when in operation shall always be kept in charges of a trained operator.”

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**SCHEDULE XXXVI**

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

**1. Definition:**

the purposes of this schedule –

- (a) “Chrome process” means the manufacture of chromic acid or bichromate of sodium or potassium or ammonium or the manipulation, movement or other treatment of these substances in connection with their manufacture.
- (b) “Efficient exhaust draught” means localized ventilation effected by mechanical or other means for the removal of gas, vapour, dust or fume so as to prevent them from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated to the point where such gas, vapour, fumes or dust originate.
- (c) “Suspension” means suspension from employment in any of the chrome process specified by written certificate in the Health Register (Form No. 20) signed by the Certifying Surgeon, who shall have power of suspension as regards all persons employed in any such process.

**2. Prohibition relating to pregnant women and Adolescent**

No pregnant woman or adolescent shall be employed or permitted to work on any chrome process.

**3. Efficient Exhaust System**

- (1) The following chrome processes shall not be carried on without the use of an efficient exhaust-draught, namely :-
  - (a) grinding;
  - (b) sieving;
  - (c) batch mixing;
- (2) (i) All equipment for the extraction or suppression of dust/fumes shall at least once in every six months be examined and tested by competent person,

and any defect disclosed by such examination and test shall be rectified as soon as practicable.

(ii ) A register containing particulars of such examination and tests shall be kept in Form-49

#### **4. Separation of certain processes**

The following chrome processes namely :-

- (a) grinding of raw materials, and
- (b) sieving of raw materials, shall be carried on in such manner and under such conditions as to secure effectual separation from any processes.

#### **5. Washing facilities**

- (1) Where acidification, sulphate settling or washing, concentration, crystallization, centrifugation or packing is carried out, there shall be provided close to each worker's station –
  - (a) wash places installed for washing hands and feet frequently in running water, and
  - (b) a container holding at least 20 ounces of 10 per cent solution of sodium bisulphite or any other suitable reducing agent.
- (2) There shall also be provided and maintained in a cleanly stated and good repair washing accommodation under cover with a sufficient supply of soap and towels on the scale indicated below –

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

**Note.** – In computing the total number of taps required for the purposes of this rule, the taps or stand pipes as required under clause 5 (1) (c) shall be included.

#### **6. Time allowed for washing**

Before each meal and before the end of the day's work at least ten minutes, in addition to the regular meal time shall be allowed for washing to each person employed in a chrome process.

#### **7. Floorings**

No woman or young person shall be employed or permitted to work in any

room in which the said processes are carried on.

- (a) of cement or similar other material so as to be smooth and impervious to water and provided with suitable gradient and drainage;
- (b) maintained in sound condition and cleaned daily.

**8. Medical Examination by Medical Officer:**

- (1) Every worker employed in a processes to which this schedule applies shall be examined by a medical officer within 15 days of his first employment. Such examination shall include tests as required by medical officer. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the medical officer
- (2) Every worker employed in the said processes shall be re-examined by a medical officer at least once in every twelve calendar months. Such re-examination shall, wherever the medical officer considers appropriate, include tests as specified in sub- paragraph (1).
- (3) The medical officer after examining a worker, shall issue a Certificate of Fitness in Form-46. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the occupier of the factory. The record of each examination carried out under sub paragraphs(1) and (2), including the nature and the results of the tests, shall also be entered by the medical officer in a health register in Form-47.
- (4) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
- (5) if at any time medical officer is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker he 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 Medical officer, in which case the person affected

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shall be suitably rehabilitated.

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

### **9. Protective Equipments**

The occupier shall provide and maintain for the use of all persons employed –

- a. in grinding, sieving or mixing raw materials, sufficient and suitable respirators (issued separately for each individual) the filtering materials of which shall be renewed daily;
- b. in roasting process, suitable footwear;
- c. in acidification, settling concentration, crystallization, centrifugation or packing suitable aprons and protective coverings for hands and feet.

Arrangements shall be made by the occupier for the examination and cleaning of all the protective equipment at the close of each day's work and for the repairs or renewal thereof when necessary.

### **10. Use of Protective Equipments**

Every person employed in a chrome process shall make use of the protective equipment provided under rule 8

### **11. Cloak Room**

There shall be provided and maintained in a clean state and in good repair for the use of all persons employed in any chrome process –

- (a) a cloak-room for street clothing put off during working hours including adequate, arrangements for drying such clothing when wet, such accommodation shall be separate from any mess room;
- (b) separate and suitable arrangements for the storage of protective clothing provided under paragraph 8.

### **12. Mess Room**

There shall be provided and maintained for the use of all persons remaining

within the premises during the meal intervals a suitable mess-room providing accommodation of at least 0.9 sq. metres per head and furnished with –

- a. a sufficient number of tables and chairs or benches;
- b. arrangements for washing utensils;
- c. adequate means for warming food.

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

**13. Prohibition of foods, drinks etc.**

No food, drink, “pan”, “supari”, or tobacco shall be brought or consumed by any worker or in any work-room in which chrome process is carried on and no person shall remain in any such room during intervals for meals or rest.

**14. Fencing of Vessel**

Every fixed vessel, whether pot, pan vat or other structure, containing any dangerous material, and not so covered as to eliminate all reasonable risk of accidental immersion of any portion of the body of a person employed shall be fenced as follows :-

- (a) Each such vessel shall, unless its edge is at least 91.4 centimetres the adjoining ground or platform be securely fenced to a height of at least 91.4 centimetres above such adjoining ground or platform;
- (b) No plank or gang-way shall be placed across or inside any such vessel unless such plank or gang-way is –
  - (i) at least 45.7 centimetres in width, or
  - (ii) securely fenced on both sides, either by upper and lower rails to a height of 91 centimetres or by other equally efficient means;
- (c) If any two such vessels are near each other and the space between them clear of any surrounding brick-work or other work, is either –
  - (i) less than 45.7 centimetres in width, or is 45.7 or
  - (ii) more centimeters in width, but is not securely fenced on both

sides to a height of at least 91.4 centimetres secure barriers shall be placed so as to prevent any passage between them.

#### **15. Cautionary Notices**

A cautionary notice in the form specified by the Chief Inspector-cum-Facilitator and printed in the language of the majority of the workers, employed shall be affixed in a prominent place in the factory where it can be easily and conveniently read by the workers.

#### **16. Exemption**

If in respect of any factory the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or the infrequency of the process, or for any other reason, all or any of the provisions of this Schedule are not necessary for the protection of the persons employed in such factory, he may be certificate in writing exempt such factory from all or any of the provisions indicated in such certificate on such conditions as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-Facilitator without assigning reasons.

### **SCHEDULE XXXVII**

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

##### **1. Applicability:**

This Schedule is applicable to all operations in welding/cutting of materials with the use of Liquefied petroleum gas or acetylene gas or argon etc; in on junction with oxygen gas.

##### **2. Equipments:**

- (1) Gas cylinders whether filled or empty shall not be stored in rooms where welding or cutting work is being done.
- (2) Liquefied gas cylinder, when in use shall always be kept in an upright position and shall be so placed that they cannot be knocked over.
- (3) Open flames, lights, lighting of fire and smoking shall be prohibited in close proximity to any cylinder containing flammable gases, except those which are in use for welding, cutting or heating.
- (4) All cylinders shall be stored at a safe distance of not less than 10

meters from all operations which produce, flames, sparks of molten metal or result in excessive heat.

- (5) Every gas cylinder shall be provided with efficient standard type pressure regulator and back flow of gas will be restricted by second non-return type valve.
- (6) All welding/cutting torch shall be of standard type which should be provided with non return valve.
- (7) Suitable type of fire extinguishers shall be provided near the welding/cutting place and also near the gas cylinder storage.
- (8) Pipe lines from gas cylinders shall be painted with distinctive colours for identification of each gas.

### 3. General:

- (1) Welding and cutting operation shall be prohibited in areas containing explosive or flammable dusts, gases, oil or vapours.
- (2) Welding/cutting operations that are carried out in places where persons other than the welders and their helpers are working or passing shall be enclosed by means of suitable stationary or portable screens at least 2.15 meters (7 ft.) in height.
- (3) All equipments like welding/cutting torch, pipe lines, brackets, non-return valves and pressure regulators shall be examined by a competent person having know-how of such equipments, at least once in a period of 15 days.
- (4) The welding/cutting process shall be carried out by workers specially trained in that job and know of the hazards of fire, back-fire and explosion.
- (5) A log book of examination of equipments and a register of trained workers for welding / cutting operation shall be maintained in the forms as directed by the Inspector-cum-Facilitator.

**106. Site Appraisal Committee.-** (1) The following provisions shall govern the functioning of the Site Appraisal Committee (hereinafter referred to be as the "Committee") in these rules, namely:- Section 83

- (a) the State Government shall constitute or reconstitute a Site Appraisal



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Committee under the chairmanship of the Labour Commissioner-cum-Director of Factories, Punjab, as and when necessary;

(b) the State Government shall appoint a senior officer of the factory wing of the Department of Labour, Punjab to be the Secretary of the Committee;

(c) the State Government may appoint the following as members of the Committee, namely :-

(i) a representative of the Department of Local Government (Fire Wing);

(ii) a representative of the Department of Housing and Urban Development;

(iii) a representative of the Department of Industries;

(iv) Chairman, Punjab Pollution Control Board;

(v) a representative of the Department of Forest and Wild Life;

(vi) a representative of the Department of Health; and

(vii) the State Government may nominate two persons having experience in the field of occupational safety or environment protection.

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

**(3) Applications for appraisal of site.-** (a) Applications for appraisal of sites in respect of the factories covered under clause (za) of section 2 shall be submitted to the Chairman of the Site Appraisal Committee; and

(b) The application for site appraisal along with fifteen copies thereof shall be submitted in Form-50. The Committee may dispense with furnishing of information on any particular item in the application form, if it considers the same to be not relevant to the application under consideration.

**(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 seven days;

(b) the Secretary shall fix up the meetings in such 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 shall adopt a procedure for its working, keeping in view the need for expeditious disposal of applications;

(d) the Committee shall examine the applications for appraisal of a site with reference to the prohibitions and restrictions on the location of an industry and the carrying on of processes and operations in different areas as per the provisions of different departments given representation in the Committee; and

(e) the Committee may call for documents, examine experts, inspect the site if necessary and take other steps for formulating its views with regard to the suitability of the site.

**(5) Exemption.-** The industrial project granted clearance under notification No. S.O. 1533 (E) dated 14.9.2006 under the Environmental (Protection) Act, 1986, issued by the Government of India, Ministry of Environment and Forests, shall not be required to get clearance from this Committee.

**107. Health and Safety Policy.-** (1) The occupier of every factory, except as provided for in sub-rule (2), shall prepare a written statement of his policy in respect of health and safety of workers at work. Section 84

(2) All factories: (a) covered under sub-clause (i) of clause (w) of section 2, but employing less than fifty workers;

(b) covered under sub-clause (ii) of the said clause (w), but employing less than one hundred workers;

shall be exempted from the requirements of sub-rule (1):

Provided that the factories specified in clauses (a) and (b) above are not covered in the First Schedule under clause (za) of section 2 of the Code and are not carrying out processes or operations declared to be dangerous under section 82.

(3) Notwithstanding anything contained in sub-rule (2), the Chief Inspector-cum-Facilitator may require the occupier 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 shall contain or deal with,-

(a) the declared intention and commitment of the top management to health,

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safety and environment and compliance with all the relevant statutory requirements;

(b) the organisational 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 shall specify the following, namely.-

(a) the arrangements for involving the workers;

(b) the intentions of taking into account the health and safety performance of workers 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 remedial measures;

(f) stating its intentions to integrate health and safety in all decisions, including those dealing with purchase of plant, equipment, machinery and materials as well as selection and placement of personnel; and

(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 duly signed by the occupier shall be made available to the Inspector-cum-Facilitator having jurisdiction over the factory and to the Chief Inspector-cum-Facilitator.

(7) The policy shall be made widely known by.-

(a) making copies available to all workers including contract workers, apprentices, transport workers and suppliers, etc.,

(b) displaying copies of the policy at conspicuous places, and

(c) any other means of communication.

(8) The occupier shall revise the Health and Safety Policy as often as may be appropriate, but it shall necessarily be revised under the following circumstances.-

- (a) whenever any expansion or modification having implications on safety and health of persons at work is made; or
- (b) whenever new substance(s) or articles are introduced in the manufacturing process having implications on health and safety of persons exposed to such substances.

**108. Collection, development and dissemination of information and labeling.-** Section 84

(1) (a) The occupier of every factory carrying on a hazardous process shall arrange to obtain or develop detailed information in the form the Material Safety Data Sheet (MSDS) prescribed in Form-51 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.

(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 that 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.

(2) Every container of an hazardous substance shall be clearly labelled or marked to identity:-

- (a) the contents of the container;
- (b) the name and address of the manufacturer or importer of the hazardous substance;
- (c) the physical and health hazards; and
- (d) the recommended personal protective equipment needed to work safely with the hazardous substance.

(3) In case a container is required to be transported by road outside the factory premises it should in addition be labelled or marked in accordance with the requirements laid down under sub-rule (2).

**109. 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 the handling of hazardous materials or substances in

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the manufacture, transportation, storage and other processes, namely:-

- (a) requirements of section 84;
  - (b) a list of hazardous processes carried on in the factory;
  - (c) location and availability of all Material Safety Data Sheets as provided in rule 108;
  - (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 to be taken by the workers to ensure safe handling, storage and transportation of hazardous substances;
  - (g) personal protective equipment required to be used by the workers employed in hazardous process or dangerous operations;
  - (h) meaning of various labels and markings used in the containers of hazardous substances as provided under rule 108;
  - (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 an hazardous substance;
  - (k) role of workers vis-à-vis the emergency plan of the factory in particular the evacuation procedures; and
  - (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 complied and made known to the workers individually through supply of booklets of leaflets and display of cautionary notices at the work places.
- (3) The booklets, leaflets and the cautionary notices displayed in the factory will be in the language understood by the majority of the workers and also explained to them.
- (4) The Chief Inspector-cum-Facilitator may direct the occupier to supply further information to the workers as may be deemed necessary.

**110. Disclosure of information to Chief Inspector-cum-Facilitator etc.-** Section 84

(1) The occupier of every factory carrying on hazardous process shall furnish, in writing, to the Chief Inspector-cum-Facilitator a copy of all the information furnished to the workers.

(2) A copy of the Material Safety Data Sheet prescribed in Form-51, in respect of the hazardous substances used, produced or stored in the factory shall be furnished to the Chief Inspector-cum-Facilitator and the Inspector-cum-Facilitator of the area.

(3) The occupier shall also furnish any other information asked for by the Chief Inspector-cum-Facilitator for the purposes of the Code and the rules.

**111. Information on industrial wastes.-** (1) The information furnished under rules 108, 109 and 110 shall include the quantity of solid and liquid wastes generated per day, their characteristics and the method of treatment such as incineration of solid wastes, chemical and biological treatment or liquid wastes, and arrangements for their final disposal. Section 84

(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, and electrostatic precipitators or similar such arrangements made for controlling pollution of the environment.

(3) The occupier shall also furnish information specified in sub-rules (1) and (2) to the Punjab Pollution Control Board.

**112. Review of information furnished to workers etc.-** (1) The occupier shall review once in every calendar year and modify, if necessary, the information furnished under these rules to the workers, the Chief Inspector-cum-Facilitator and the Inspector-cum-Facilitator of the area. Section 84

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

**113. Confidentiality of information.-** (1) The occupier of a factory carrying on 'hazardous process' shall disclose all information needed for protecting safety and health of the workers to,- Section 84

(a) his workers; and

(b) the Chief Inspector-cum-Facilitator and the Inspector-cum-Facilitator as required under rules 108 and 109.

If the occupier is of the opinion that the disclosure of details regarding the process and formulations will adversely affect his business interests, he may make a representation to the Chief Inspector-cum-Facilitator stating the reasons for withholding such information. The Chief Inspector-cum-Facilitator shall give an opportunity to the occupier of being heard and pass an order on the representation.

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

Section 84

**114. Qualifications of supervisors.-** (1) All persons who are required to supervise the handling of hazardous substances shall possess the following qualifications and experience, namely:-

(a) a Bachelor's degree in Chemistry or Diploma in Chemical Engineering or Technology with five years experience; or

(b) a Master's Degree in Chemistry or a Degree in Chemical Engineering or Technology with two years experience.

(2) The experience stipulated in sub-rule (1) shall be in the process, operation and maintenance in the Chemical industry.

Section 84

**115. Issue of guidelines.-** For the purpose of compliance with the requirements of section 84 or section 85, the Chief Inspector-cum-Facilitator may, if deemed necessary, issue guidelines from time to time to the occupiers of factories carrying on 'hazardous process'. Such guidelines shall be based on National Standards, Codes of Practice, or recommendations of international bodies such as the International Labour Organization and the World Health Organization.

Section 85

**116. Medical examination of workers employed in hazardous process.-**

(1) Workers employed in an hazardous process shall be medically examined by a qualified medical practitioner, in the following manner, namely :-

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

(b) once in a period of six months, to ascertain the health status of all the workers in respect of occupational health hazards to which they are exposed; and in cases where in the opinion of the qualified medical practitioner it is necessary to do so at a shorter interval in respect of any worker; and

(c) the details of pre-employment and periodical medical examination carried out as aforesaid shall be recorded in the health register in Form-47.

(2) No person shall be employed for the first time without a certificate of Fitness in Form-46 granted by the qualified medical practitioner. If the qualified medical practitioner declares a person unfit for being employed in any process covered under sub-rule (1), such a person shall have the right to appeal to the Inspector-cum-Facilitator who shall refer the matter to the Medical Officer whose opinion shall be final in this regard. If the Inspector-cum-Facilitator himself is also a Medical Officer, he may dispose of the application himself.

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

Provided that the Medical Officer on his own may examine any worker when he considers it necessary to do so for ascertaining the suitability of his employment in the 'hazardous process' or for ascertaining the health status of any worker.

(4) The workers taken away from employment in any process under sub-rule (2) may be employed again in the same process only after obtaining the Fitness Certificate from the Medical Officer and after making entries to that effect in the health register.

(5) An Inspector-cum-Facilitator may, if he deems it necessary to do so, refer a worker to the Medical Officer for medical examination as required under sub-rule (1) or if he is a Medical Officer himself, conduct such medical



examination. The opinion of the Medical Officer in such a case shall be final. The fees 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 refuse to undergo such medical examination.

Section 85

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

(a) For factories employing up to fifty workers –

(i) the services of a qualified medical practitioner on retainership 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 116 and render medical assistance during any emergency;

(ii) at least five persons trained in first-aid procedures amongst whom at least one shall always be available during the working period; and

(iii) a fully equipped first-aid box.

(b) For factories employing fifty-one to two hundred workers:-

(i) an occupational health Centre having a room with a minimum floor area of fifteen square metres 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 qualified medical practitioner shall be the over all 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; and

(iv) a fully equipped first-aid box in all the departments.

(c) For factories employing above two hundred workers:-

(i) one full-time qualified medical practitioner for factories employing up to five hundred workers and one more qualified medical practitioner for every additional one thousand workers or part thereof;

- (ii) an Occupational Health Centre having at least two rooms each with a minimum floor area of fifteen square metres with floor 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 throughout the working period; and
  - (iv) the Occupational Health Centre shall be suitably equipped to manage medical emergencies.
- (2) The qualified medical practitioner required to be appointed under sub-rule (1) shall have any recognised medical qualification as defined in the National Medical Commission Act, 2019 (Central Act No. 30 of 2019) and should be enrolled on the National Register as defined in clause (m) of section 2 or on the State Register as defined in clause (v) of section 2 of the aforesaid Act and should possess a certificate of Training in industrial Health of minimum three months duration recognised by the State Government:

Provided that-

- (i) a person possessing a diploma in Industrial Health or equivalent shall not be required to possess the certificate of training as aforesaid;
  - (ii) the Chief Inspector-cum-Facilitator may, subject to such conditions as he may specify, grant exemption from the requirement of this sub-rule, if in his opinion a suitable person possessing the necessary qualification is not available for appointment; and
  - (iii) in case of a person who has been working as qualified medical practitioner for a period of not less than three years on the date of commencement of these rules, the Chief Inspector-cum-Facilitator may, subject to the condition that the said person shall obtain the aforesaid certificate of training within a period of three years, relax the qualification.
- (3) The syllabus of the course leading to the above certificate and the organisations conducting the State course shall be approved by the Director General, Factory Advice Service and Labour Institute or the State Government in accordance with the guidelines issued by the Director General, Factory Advice Service and Labour Institute.

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(4) Within one month of the appointment of a qualified medical practitioner, the occupier of the factory shall furnish to the Chief Inspector-cum-Facilitator the following particulars, namely:-

- (a) Name and address of the qualified medical practitioner;
- (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 available
- 2. A table with a smooth top at least 180 cm.x105 cm.
- 3. Means for sterilizing instruments .
- 4. A couch.
- 5. Two buckets or containers with close fitting.
- 6. A kettle and spirits stove or other suitable means of boiling water.
- 7. One bottle of spirits ammoniac aromatics(120 ml)
- 8. Two medium size sponges.
- 9. Two Kidney trays.
- 10. Four cakes of toilet, preferably antiseptic
- 11. Two glass tumblers and two wine glasses
- 12. Two clinical thermometers.
- 13. Two tea spoons.
- 14. Two graduated (120ml) measuring glasses.
- 15. One wash bottle (1000 cc) for washing eyes.
- 16. One bottle (one litre) carbolic lotion 1 in 20.
- 17. Three chairs.
- 18. One screen.
- 19. One electric hand torch.
- 20. An adequate supply of tetanus toxied.

21. Coramine liquid (60ml.).
22. Tablets-Antihistaminic, antispasmodic (25 each)
23. Syringes with needles -2 cc, and 10 cc.
24. Two needle holders big and small.
27. One dressing forceps
28. One scalpels.
29. One stethoscope.
30. Rubber bandage-pressure bandage.
31. Oxygen cylinder with necessary attachments.
32. One Blood Pressure apparatus,
33. One patellar Hammer.
34. One Peak-flow meter for lung function measurement.
35. One stomach wash set.
36. Any other equipment recommended by the Factory Medical Officer according to specific need relating to manufacturing process.
37. in addition –

***(1) For factories employing 51 to 200 workers-***

1. Four plain wooden splints 900 mmx00 mmx6mm
2. Four plain wooden splints 50 mm x 75 mm x 6mm.
3. Two plain wooden splints 250 mm x 50 mm x 12 mm.
4. One pair artery forceps.
5. Injections-morphia, pethidine, atropine, adrenaline, coramine, novacan (2 each).
6. One surgical scissors.

***(2) For factories employing above 200 workers.***

1. Eight plain wooden splints 900 mm x 100 mm x 6 mm.
2. Eight plain wooden splints 350 mm x 75 mm x 6 mm.
3. Four plain wooden splints 250 mm x 50 mm x 12 mm.

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4. Two pairs artery forceps.
  5. Injections –morphia, pethadine, atropine, adrenaline, coramine, novacan (4each).
  6. Two surgical scissors.

Section 85

**118. 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 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 two hundred workers may make arrangements for procuring such facility at short notice from 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 thirty minutes;
- Flood lights;
- Flash lights, Fire extinguisher dry powder type;
- Insulated gauntlets.

**(c) Emergency care equipments-**

**(i) Resuscitation –**

- Portable suction unit, portable Oxygen units;

- Bag-valve-mask, hand operated artificial ventilation unit;
- Airways; -- Mouth gases; -- Trachestomy adoptors;
- Short spine board; -- I. V. Fluids with administration unit;
- B.P. manometer; -- Gugg; -- 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 aluminium foils; -- Adhesive tape of 3”; -- Safety pins;
- Bandage sheets; -- Burn sheet.

(iv) Poisoning –

- Syrup of Ipecac; -- Activated Charcoal pre-packeted in doses; -- Snake bite kit;
- Drinking water.

(v) Emergency Medicines –

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

**119. Decontamination facilities.**— In every factory carrying out ‘hazardous process’, the following provisions shall be made to meet emergency, namely:—

(a) fully equipped first aid box;

(b) readily accessible means of water for washing, drenching clothing of workers as well as for those who have been contaminated with hazardous and corrosive substances and such means shall be as per the scale shown in the table below:—

**Table**

<b>No. of persons employed at any time</b>	<b>No. of drenching showers</b>
Upto 50 persons	2
Between 51 to 100	3
101 to 200	3 + 1 for every 50 persons thereafter

201 to 400	5 + 1 for every 100 persons thereafter
401 and above	7 + 1 for every 200 persons thereafter

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

## Section 85

**120. Making available health records to workers.-** (1) The occupier of every factory carrying out hazardous process shall make accessible the health records including the records of workers exposed to hazardous process or, as the case may be, the medical records of any worker for his perusal under the following conditions, namely:-

(a) once in every six months or immediately after the medical examination, whichever is earlier;

(b) if the qualified medical practitioner or Medical Officer, as the case may be, is of the opinion that the worker has manifested signs and symptoms of any notifiable disease as specified in the Third Schedule to the Code;

(c) if the worker leaves the employment;

(d) if any one of the following authorities so direct :--

(i) the Chief Inspector-cum-Facilitator;

(ii) the Health Authority of Central or State Government;

(iii) Competent Authority in relation to employee's Compensation;

(iv) the Director General Employees' State Insurance Corporation;

(v) the Director, Employees State Insurance Corporation (Medical benefits; and

(vi) the Director General, Factory Advice Service and Labour Institutes.

(2) A copy of the upto date health records including the record of worker's exposure to hazardous process or, as the case may 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.

**121. Permissible Levels in Factories.-** Without prejudice to the requirements in any other provisions in the Code or the rules made there under, the requirements specified in the Schedule given below shall apply to all factories:-

### SCHEDULE

**1. Definitions:** for the purpose of this schedule –

- (a) “mg/m<sup>3</sup>” means milligrams of a substances per cubic metre of air;
- (b) “mppem” means million particles of a substance per cubic metre of air;
- (c) “ppm” means parts of vapour or gas per million parts of air by volume at 25 degrees centigrade and 760 mm of mercury pressure;
- (d) ”Time weighted average concentration” means the average concentration of a substance in the air at any work location in a factory computed from evaluation of adequate number of air samples taken at that location, spread over the entire shift on any day, after giving weightage to the duration for which each such sample is collected and the concentration prevailing at the time of taking the sample.

Time weighted average  $C_1T_1 + C_2T_2 + \dots C_nT_n$

Concentration = -----

$T_1 + T_2 + \dots T_n$

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.

**2. Limits of concentration of substances at work location: -** (1) The time weighted average concentration of any substance listed in table 1 or 2 of the schedule, at any work location in a factory during any shift on any day shall not exceed the limit of the permissible time weighted average concentration specified in respect of that substance:



Provided that in the case of a substance mentioned in Table 1 in respect of which a limit in terms of short term maximum concentration is indicated, the concentration of such a substance may exceed the permissible limit of the time weighted average concentration for the substance for short periods not exceeding 15 minutes at a time, subject to the condition that-

- (a) Such periods during which the concentration exceeds the prescribed time weighted average concentration are restricted to not more than 4 per shift;
- (b) the time interval between any two such periods of higher exposure shall not be less than 60 minutes; and
- (c) At no time the concentration of the substance in the air shall exceed the limit of short term maximum concentration.

(2) In the case of any substance given in Table 3, the concentration of the substance at any work location in a factory at any time during any day shall not exceed the limit of exposure for that substance specified in the table.

(3) In the cases where the word "skin" has been indicated against certain substance mentioned in Tables 1 and 3, appropriate measures shall be taken to prevent absorption through cutaneous routes particularly skin, mucous membranes, and eyes as the limits specified in these Tables are for conditions where the exposure is only through respiratory tract.

(4) (a) In case, the air at any work location contains a mixture of such substances mentioned in Table 1, 2 or 3, which have similar toxic properties, the time weighted concentration of each of these substances during the shift should be such that when these time weighted concentration divided by the respective permissible time weighted average concentration specified in the above mentioned tables, and the fractions obtained are added together, the total shall not exceed unity.

$C_1 C_2 C_n$

----- + ----- + ----- + -----

$L_1 L_2 L_n$

Where  $C_1, C_2, \dots, C_n$  are the time weighted concentration of toxic substances 1, 2-----, and n respectively, determined after measurement at

work location;

And L1, L2 .....Ln are the permissible time weighted average concentration of the toxic substances 1, 2, and n respectively.

(b) In case the air at any work location contains a mixture of substances, mentioned in Table 1, 2, 3 and these do not have similar toxic properties, then the time weighted concentration of each of these substances shall not exceed the permissible time weighted average concentration specified in the above mentioned tables, for that particular substance.

(c) The requirement in clauses (a) and (b) shall be in addition to the requirements in paragraphs 2 (1) and 2(2).

**3. Power to require assessment of concentration of substances.**-(1)An Inspector-cum-Facilitator may, by an order in writing, direct the occupier or manager of a factory to get before any specified date, the assessment of the time weighted average concentration at any work location of any of the substances mentioned in Table 1,2 or 3 carried out.

(2) The results of such assessment as well as the method followed for air sampling and analysis for such assessment shall be sent to the Inspector-cum-Facilitator within 3 days from the date of completion of such assessment and also a record of the same kept readily available for inspection by an Inspector-cum-Facilitator.

**4. Exemption.**- If in respect of any factory or a part of a factory, the Chief Inspector-cum-Facilitator is satisfied that, by virtue of the pattern of working time of the workers at different work locations or an account of other circumstances, no worker is exposed, in the air at the work locations, to a substance or substances specified in Tables 1,2 or 3 to such an extent as is likely to be injurious to his health, he (the Chief Inspector-cum-Facilitator) may by an order in writing, exempt the factory or a part of the factory from the requirements in paragraph 2, subject to such conditions, if any, as he may specify therein.

TABLE-1

Substance	Permissible level of exposure			
	Time-weighted average concentration		short-term maximum concentration	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Acetic acid	10	25	15	37
Acrolein	0.1	0.25	0.3	0.8
Aldrin-skin	-	0.25	-	0.75
Ammonia	25	18	35	27
Aniline-skin	2	10	5	20
Anisidine(o-p-isomera)-skin	2.1	0.5	-	-
Arsenic and compounds	-	0.2	-	-
Benzene	10	30	-	-
Bromine	0.1	0.7	0.3	2
2-Butanone(methylethyl)(ketone-mek)	200	590	300	885
n-Buty lacetate	150	710	200	950
Secondary/Tertiary Butyl Acetate	200	950	250	1190
Cadmium dust and salt (as cd)	-	0.05	-	0.2
Cacium	-	2	-	-
Carbyl (sevin)	-	5	-	10
Carbofuran(furadan)	-	0.1	-	-
Carbon disulfide-skin	2	60	30	90
Carbon mono oxide	50	55	400	440
Carbon tetra chloride-skin	10	65	20	130
Carbonyl chloride(Phosgene)	0.1	0.4	-	-
Chlordane-skin	-	9.5	-	2
Chlorobenzene(Mono Chlorobenzene)	75	350	-	-
Chlorine	1	3	3	9
Bi-Chloromethyl Ether	0.001	-	-	-
Chromic Acid and Chromates (as cr)	-	0.05	-	-

Chromium sel Chromic, Chromous salts	-	0.05	-	-
Copper Fumes	-	0.2	-	-
Cotton Dust (raw)	-	0.02	-	-
Cresol, All Isomers-skin	5	22	-	-
Cynides (as cn) skin	-	5	-	-
Cyanogen	10	20	-	-
DDT(Dichloro Diphenyl Trichloro-Ethane)	-	1	-	3
Demton-skin	0.01	0.1	0.03	0.3
Diazinon-skin	-	0.1	-	0.3
Dibutyl phthalate	-	5	-	10
Dichlorves(ddv)-skin	0.1	1	0.3	3
Dieldrin-skin	-	0.25	-	0.75
Dinitrobenzene(all isomers)-skin	0.15	1	0.5	3
Dinitrotuolene-skin	-	1.5	-	5
Diphenyl	0.2	1.5	0.6	4
Endosulfam(thiodan)-skin	-	0.1	-	0.3
Endrin-skin	-	0.1	-	0.3
Ethyl acetate	400	1000	-	-
Ethyl alcohol	1000	1900	-	-
Ethyl amine	60	18	-	-
Flourides	-	2.5	-	-
Fluorin	1	2	2	4
Hydrogen cynide-skin	10	11	15	16
Hydrogen Sulfide	10	15	16	27
Iron oxide fumes	-	5	-	10
Isoamyl acetate	100	525	125	655
Isoamyl alcohol	100	360	125	450
Isobutyl alcohol	50	150	75	225
Lead fumess and dust	-	0.15	-	0.45
Libdane-skin	-	0.5	-	1.5
Malathion-skin	-	10	-	-
Manganese fumes	-	1	-	1

Mercury	-	0.05	-	0.15
Mercury(alkyl compounds)-skin	0.001	0.01	0.003	0.03
Methyl alcohol(methanol)-skin	200	260	250	310
Methyl cellopoly-skin(2-methoxy ethanol)	25	80	35	120
Methyl isobutyl ketone-skin	100	410	125	510
Naphthalene	10	50	15	75
Nickel carbonyl	0.05	0.35	-	-
Nitric acid	2	5	4	10
Nitric oxide	25	30	35	45
Nitrobenzene-skin	1	5	2	10
Oil mist minerals	-	5	-	10
Parathion-skin	-	0.01	-	0.03
Phenel-skin	5	19	10	38
Phorate(thimet)-skin	-	0.05	-	0.2
Phosgene(Carbonyl Chloride)	0.1	0.4	1	1
Phosphine	0.3	0.4	1	1
Phasphorous(yellow)	-	0.1	-	0.3
Phasphorous pentachloride	-	1	-	3
Phasphorous trichloride	0.5	3	-	-
Picric acid-skin	-	0.1	-	0.3
Pyridine	5	15	10	30
Saline(silicontetrahydride)	0.5	0.7	1	1.5
Styrene monomer(phenylethylene)	100	420	125	525
Sulfur dioxide	5	13	-	-
Sulphuric acid	-	1	-	-
Toludine(toloul)-skin	100	375	150	500
O-Toludine	5	22	10	44
Trichloroethylene	100	535	150	800
Vinyl chloride	5	10	-	-
Welding fumes(nitrous oxide)	-	5	-	-
Xylene(o-m-p-isomers)-skin	100	435	150	655

TABLE-2

S.No	Substance	Permissible time average concentration
1	Silica	
a	Crystalline	
i	Quartz	1 in term of dust count= $1060/(\% \text{ quartz}+10)$ in mppcm
		2 in term of respirable dust = $10/(\% \text{ respirable quuartz}+2)$ in mg/cubic metre
		3 in item of total dust = $30/(\% \text{ quartz}+3)$ in mg/cubic metre
ii	Cristobalite	half of the limit given against quartz
iii	Tridmite	do
iv	Silica fused	as for quartz
v	Tripoli	as for item(2) quartz
b	Amorphous	705 mppcm
2	Silicates having less than 1 % free silica by weight	
A	Asbestos fibres longer than 5 microns	2 fibres per cubic centimetres
B	Mica	705 mppcm
c	Mineral wool fibre	10 mg per cubic metres
d	Porlite	1060 mppcm
e	Portland cement	1060 mppcm
f	Soapstone	705 mppcm
g	Talc (nonbost)	do
h	Tal(fibrrous)	same as for (a)
i	Tetomile	do
3	Coal Dust	
1	for airborne dust having not more than 5% silicon dioxide by weight	2 mg per cubic metres
2	for airborne dust having more than 5% silicon dioxide by weight	as for item (2) of quartz

**TABLE-3**

Substance	Permissible limit of exposure	
	ppm	mg/m <sup>3</sup>
Acetic anhydride	5	20
O-Dichlorobenzene	50	300
Formaldehyde	2	3
Hydrogen Chloride	5	7
Manganese & compounds (as Mn)	-	5
Nitrogen dioxide	5	9
Nitroglycerin-skin	0.2	2
Potassium hydroxide	-	2
Sodium hydroxide	-	2
- 2, 4, 6 - Trinitrotoluene (TNT)	-	0.5

Section 90

**122. Appropriate authority for appeal.-** The Director of Factories, Punjab shall be appropriate authority for the purposes of section 90 of the Code.

Section 90

**123. Form and manner of making application under section 90.-** (1) The occupier shall make an application in Form-52 to the appropriate authority.

(2) The appropriate authority shall refer the matter within three days to the Additional Director of Factories, Punjab.

(3) The Additional Director of Factories, Punjab shall examine the matter within fifteen days from the date of receipt.

(4) The Additional Director of Factories, Punjab shall submit report within next two days to the appropriate authority.

(5) The appropriate authority shall pass an order within three days from date of receipt of report.

Section 91 (1)

**124. Persons holding position of supervision or management or confidential position etc.-** The following persons in factories shall be deemed to hold position of supervision or management and to be employed in confidential position, namely:-

(i) Managing Director, President, Chief Executive or Senior Vice-President,

- 
- Vice –President or General Manager;
- (ii) Deputy General Manager or Manger or Factory Manager ;
- (iii) Deputy Manager or Deputy Factory Manager, Assistant Manager or Assistant Factory Manager ;
- (iv) Chief Welfare Officer or Welfare Officer or Lab our Welfare Officer;
- (v) Heads of Departments ;
- (vi) Superintending Engineer ;
- (vii) Executive Engineer or Assistant Engineer ;
- (viii) Secretary or Personal Assistant to the persons listed above at serial numbers (i) to (vii) ;
- (ix) Sub-Station Engineer;
- (x) Head Electrician;
- (xi) Supervisor or Foreman;
- (xii) Head Store Keeper or Store keeper ;
- (xiii) Head Time-Keeper or Time keeper ;
- (xiv) Store Purchase Officer ; and
- (xv) any other person employed as such and so declared by the Chief Inspector-cum-Facilitator in writing.

**125. List to be maintained of persons holding confidential position or position of supervision or management.-** A list showing the names and designations of all persons referred to in rule 124 shall be maintained in every factory. Section 91 (1)

## PART-VI

### PLANTATION

**126. Housing accommodation for workers.-** Every employer shall provide for worker and his family residing in a plantation, housing accommodation as near as possible to the place of work. Section 92

**127. Standard and specification of housing accommodation.-** All housing accommodation for workers in a plantation shall conform to such standards and specifications as may be approved by the State Government on the recommendation of the Board constituted under section 17. Section 92



## Section 92

**128. Sites for housing accommodation.-** (1) The housing accommodation shall be provided on dry well-drained land which is consistent with the requirement regarding distance from the plantation, has supplies of wholesome drinking water within a reasonable distance.

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

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

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

(5) Adequate facilities of toilets with sewage disposal shall be ensured by the employer.

## Section 92

**129. Maintenance of houses.-** (1) The employer shall, at his own expenses, maintain all houses provided for accommodation of workers in a fit and safe condition and execute annual and such other repairs as may be necessary from time to time.

(2) A worker occupying a house may, and an Inspector-cum-Facilitator appointed under the Code shall, bring to the notice of the employer any defect in the condition of a house which makes it dangerous to the health and safety of the worker. It shall be the duty of the employer to rectify the same at the earliest.

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

(4) If any employer fails to comply with the requirements of sub -rules (1), (2) or (3), the Chief Inspector-cum-Facilitator may cause repairs to be done and realise the cost thereof from the employer as arrears of land revenue.

## Section 92

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

**131. Occupation of accommodation after termination of employment.-** Section 92

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

- (i) in the case of death, transfer, termination of service, retirement or resignation, a period not exceeding two months;
- (ii) in the case of leave, for the period of leave; and
- (iii) in the case where the discharge of a worker is disputed and the matter has been taken to an Industrial Tribunal or Court, for so long as the case is not finally disposed of".

(2) If a worker fails to vacate the house on the expiry of the period mentioned above and continues to occupy the same when no member of his family is working, he shall be liable to pay to the employer such rent at a rate not exceeding ten percent of his wages as may be fixed by the Chief Inspector-cum-Facilitator.

**132. Benefit of sickness.-** (1) Every worker shall be entitled to obtain sickness allowance from his employer for each day of certified sickness for a total period of fourteen days in a year at the rate of wages paid normally. Section 92

Provided however, that where under existing provisions under any law the sickness allowance is higher, workers shall not, by the dint of this rule, be deprived of such higher allowance.

- (2) Sickness allowance specified in sub-rule (1) shall be paid at the option of the worker either at the time of payment of weekly advances on account of wages or along with the first installment of wages payable to the worker after he resumes his work on recovery from certified sickness.
- (3) The certificate of sickness shall be issued by the Medical Officer or qualified medical practitioner appointed by the employer to every worker entitled to obtain sickness allowance.
- (4) No sickness allowance shall be paid to a worker if he attends to work on any day for which he has been granted sickness allowance.

**133. Crèche for Plantation Workers.-** (1) In every plantation wherein fifty or more workers are employed or were employed on any day of the preceding twelve months, the employer shall provide and maintain creche for the use of Section 92

the children who are between the age of 2 and 6 years.

(2) Every crèche shall be conveniently accessible to the parents of the children accommodated therein.

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

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

(5) The plan of the crèche building shall be in accordance with the standard plan or plans laid down by the Chief Inspector-cum-Facilitator.

(6) The crèche shall be furnished with suitable furniture such as cots to lie down, benches to sit, a hammock for each child below the age of two years, etc., and provided with toys and other play things as may be specified by the Chief Inspector-cum-Facilitator with the prior approval of the State Government.

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

(8) The employer shall appoint a woman as Crèche-in-charge to look after children during the absence of their parents, who shall possess such qualifications and training as may be approved by the State Government.

Section 92

**134. Educational facilities for worker's children.-** Every employer shall, if the number of workers children between the ages of six and twelve in his plantation exceeds twenty five, provide and maintain a Primary School for imparting Primary education to the children:

Provided that an employer may not provide and maintain a Primary School if there is one under the direct management of the State Government or of any local body for imparting free education to the children up to the primary or higher standard, with enough seats to admit the children between the ages of six and twelve of the workers in his plantation or within a distance of one kilometer from the place where workers reside in his plantation.

Section 92

**135. Equipment in school.-** The employer or employers, as the case may be shall provide for every Primary School maintained under rule 134 such educational and other equipment as may be considered necessary by the State Education Department.

**136. Fee to be charged.-** No fees shall be charged from the workers' children attending the Primary School. Section 92

**137. Recreational facilities.-** (1) Every employer shall provide and maintain,- Section 92

(i) recreation centre to the scale of one for every one hundred and seventy-five families of resident workers or part thereof with provision for a television with dish connection and indoor games for workers and their families and such other facilities, as may be specified by the Chief Inspector-cum-Facilitator, with prior approval of the State Government; and

(ii) a playground or playgrounds for workers and their families with necessary sports equipment for out-door games:

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

**138. Safeguards for women and adolescent in using or handling hazardous substances.-** No pregnant woman or adolescent shall be allowed to handle any hazardous substance. Section 93 (2)

**139. Qualifications to supervise the use, handling, storage and transportation of insecticides, chemicals and toxic substances in the plantation of the employer.-** For the purposes of sub-section (3) of section 93, no person shall be appointed by an employer unless such person is,- Section 93 (3)

- (i) in possession of B.Sc in Chemistry or Agriculture;
- (ii) able to speak and understand the language of workers; and
- (iii) having an experience of three years in such field.

**140. Safety measures and safe work practices.-** The following safety measures and safe work practices with respect to the location, security and access to storage of insecticides, chemicals and toxic substances shall be ensured by the employer, namely:- Section 93 (4)

- (a) the store or storage area shall be separate from other buildings, dwellings, storage of foodstuffs;
- (b) accidental or unauthorized access to the storage area shall be prevented;
- (c) the store shall be kept locked and fitted with a child proof latch to prevent risks to children, visitors to the workplace, and members of

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the public who are not familiar with the hazards of insecticides, chemicals and toxic substances;

- (d) adequate natural or mechanical ventilation shall be provided;
- (e) impervious floors with drainage into a sump concrete door sills concrete or block walls to a sufficient height to contain spills impervious shelving;
- (f) the walls (or bund) and door sill shall be high enough to contain a spillage of twenty five per cent of the total volume of packaged liquid pesticides;
- (g) provision shall be made for drainage of spills and clean up water into a sump or pit that can contain the insecticides, chemicals and toxic substances, clean up materials and the wash water;
- (h) supply of wash water shall be made readily available;
- (i) good natural cross-flow ventilation shall be provided with vents in opposite walls, above bund height;
- (j) substances shall be stored at a cool temperature to prevent deterioration; and
- (k) the products shall be protected from moisture so that packaging and labelling does not deteriorate.

Section 93 (5)

**141. Medical examination and health record of plantation workers.-**

(1) Every worker employed in a plantation, who is exposed to insecticides, pesticides, chemicals and toxic substances shall be medically examined by a qualified medical practitioner in the following manner, namely:-

- (i) once before employment, to ascertain physical fitness of the person to do the particular job;
- (ii) once in a period of twelve months, to ascertain the health status of all the workers in respect of occupational health hazards to which they are exposed; and
- (iii) the details of pre-employment and periodical medical examination carried out as aforesaid shall be recorded in the health register in Form-47.

(2) No person shall be employed for the first time without a certificate of Fitness in Form-46 granted by the qualified medical practitioner. If the qualified

medical practitioner declares a person unfit for being employed, such a person shall have the right to appeal to the Inspector-cum-Facilitator who shall refer the matter to the Medical Officer whose opinion shall be final in this regard.

(3) Any finding of the qualified medical practitioner revealing any abnormality or unsuitability of any person employed shall immediately be reported to the Medical Officer who shall in turn, examine the concerned worker and communicate his findings to the employer within thirty days. If the Medical Officer is of the opinion that the worker so examined is required to be taken away from the employment for health protection, he will direct the employer accordingly, who shall not employ the said worker in the same employment. However, the worker so taken away shall be provided with alternate placement unless he is fully incapacitated in the opinion of the Medical Officer in which case the worker affected shall be suitably rehabilitated.

(4) The workers taken away from employment under sub-rule (3) may be employed again in the same employment only after obtaining the Fitness Certificate from the Medical Officer and after making entries to that effect in the health register.

(5) A copy of the upto date health records including the record of worker's exposure to insecticides, pesticides, chemicals and toxic substances 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 qualified medical practitioner.

**142. Washing, bathing and cloak-room facilities to plantation workers.-** Section 93 (7)

(1) There shall be provided and maintained in every plantation for the use of all the workers taps for washing, at the rate of one for every fifteen persons including liquid soap in a container with tilting arrangements and nail brushes or other suitable means for effective cleaning. Such facilities shall be conveniently accessible and shall be kept in a clean and hygienic condition.

(2) If washing facilities as required above are provided for women, such facilities shall be separate for them and adequate privacy at all times shall be ensured in such facilities.

(3) Every employer of a plantation where the workers engaged therein are handling insecticides, pesticides, chemicals and toxic substances and fifty workers or more are employed, shall provide for all the workers working in a

shift, mess room facilities which are well ventilated and provided with tables and sitting facilities along with the provision of cold and hygienic drinking water facilities.

(4) The facilities mentioned in sub-rule (3) shall include suitable arrangements for cleaning and washing and shall be maintained in a clean and hygienic condition.

(5) Every employer of a plantation where the workers engaged therein are handling insecticides, pesticides, chemicals and toxic shall provide for cloak room facilities with lockers. Each worker shall be provided with two lockers, one for work clothing and another separately for personal clothing and the lockers should be such as to enable the keeping of the clothing in a hanging position.

(6) The cloak room facilities provided under sub-rule (5) shall be located, as far as possible, near to the facilities provided for washing under sub-rule (1). If it is not possible to locate the washing facilities near to the cloakroom, then the cloakroom shall have adequate and suitable arrangements for cleaning and washing.

Section 93 (7)

**143. Protective clothing and equipment to plantation workers.-** When choosing Personal Protective Equipments in accordance with the label, Material Safety Data Sheet and risk assessment, the following items shall be considered, namely:-

- (a) cotton overalls buttoned to the neck and wrist;
- (b) pesticide resistant water-proof aprons when mixing or pouring concentrate;
- (c) gloves (pesticide resistant), preferably gauntlets, to be worn when handling or using chemicals;
- (d) a wide brim washable hat; if contaminated, the hat should be removed immediately and washed before re-use;
- (e) boots such as rubber or Polyvinyl chloride; waterproof leggings providing additional protection, leather boots which can absorb pesticide and prevent exposure during high volume applications;
- (f) face shield or splash proof goggles when mixing or pouring;

- (g) goggles and appropriate approved respirator, especially if exposure to spray drift is likely; and
- (h) full face air -line respirator when working in enclosed spaces, depending on the label and Material Safety Data Sheet self-contained breathing apparatus for entry into confined spaces.

**144. Precautionary notices in plantation.-** Precautionary notice in the form specified below and printed in the language of the majority of the workers employed shall be affixed in a prominent place in the plantation where it can be easily and conveniently read by the workers. Section 93 (9)

#### PRECAUTIONARY NOTICE

1. Chemicals handled in this plantation are hazardous.
2. Smoking, chewing tobacco, eating food or drinking, in this area is prohibited.
3. No food stuff or drink shall be brought in this area.
4. Some of these chemicals may be absorbed through the skin and may cause poisoning.
5. A good wash shall be taken before meals.
6. Protective devices supplied shall be used while working in this area.
7. Spillage of the chemicals on any part of the body or on the floor shall be immediately washed away with water.
8. All workers shall report for the prescribed medical tests regularly to protect their own health.

#### CHAPTER-X

#### OFFENCES AND PENALTIES

- 145. Officer and manner for holding enquiry.-** (1) For the purpose of sub-section (1) of section 111, an officer in the rank of Deputy Director of Factories, Punjab shall be the officer appointed for holding enquiry within his jurisdiction. Section 111 (1)
- (2) The officer referred to in sub-rule (1), upon acquiring the knowledge of an offence under the Code, shall serve a notice, within seven days of such knowledge, on the person who is alleged to have committed an offence.
- (3) The person on whom notice has been served under sub-rule (2) shall submit his reply within the period specified in the notice.



(4) The officer referred to in sub-rule (1), may call any person to appear before him along with any record or document required for the purpose of enquiry he is holding.

(5) The officer referred to in sub-rule (1), shall complete enquiry within sixty days from the start of such enquiry and pass a speaking order.

(6) The amount of penalty imposed and received under section 111 shall be credited to the fund established under sub-section (1) of section 115 and record of such receipt shall be maintained in Form-53.

Section 111 (3) **146. Appellate Authority and manner of appeal.-** (1) For the purpose of sub-section (3) of section 111, an officer in the rank of Joint Director of Factories, Punjab shall be the Appellate Authority for hearing appeal within his jurisdiction.

(2) The aggrieved person may prefer an appeal to the officer referred to in sub-rule (1) in Form-54 within the period specified in sub-section (3) of section 111.

(3) A fee at the rate of two percent of penalty imposed under rule 145 shall be accompanied by appeal which shall be paid on portal and shall be credited to the treasury in the head of the account as may be specified by the State Government from time to time.

Section 114 **147. Officer and manner of composition of certain offences.-** (1) An officer as given below in the table shall be the officer for composition of certain offences, namely:-

Serial No.	Officer authorized to compound	Sections for which officer is authorized to compound
1	Additional Director of Factories, Punjab	97, 100(1), 101, 103(1)(b), 105, 113(2), 114(3)
2	Deputy Director of Factories, Punjab	12(3), 94, 96, 99, 106

- (1) Any person seeking composition of penalty or offence as specified in sub-rule (1) shall file an application in Form-55 to the concerned officer mentioned in sub-rule (1).
- (2) The concerned officer mentioned in sub-rule (1) shall take decision within seven days from receipt of application under sub-rule (2).
- (3) The concerned officer mentioned in sub-rule (1) may authorize any officer of factory wing of the Labour Department to submit

copy of decision of composition before the officer who imposed penalty or the court where prosecution is instituted

- (4) The amount of composition received during the month shall be credited to the fund mentioned in sub-section (1) of section 115 for the unorganized workers, before the 7th day of the succeeding month.
- (5) The amount of composition received and credited shall be recorded in a register to be maintained in Form-56.

## CHAPTER-XI

### SOCIAL SECURITY FUND

**148. Social security fund.-** (1) The Chief Inspector-cum-Facilitator shall maintain record of the social security fund, in Form-57. Section 115

(2) The social security fund administered shall be credited to the Punjab Unorganized Workers Social Security Board constituted under the Code on Social Security (Punjab) Rules, 2021.

(3) The social security fund may also be expended on welfare schemes of the Punjab Unorganized Workers Social Security Board.

(4) The other sources of social security fund shall be,-

- (i) the grants and subsidies given by the Central or State Government;
- (ii) all voluntary donations; and
- (iii) ten rupees per worker to be paid by the employer of every establishment at the time of its registration.

## CHAPTER-XII

### MISCELLANEOUS

**149. Common License for contractor, factories and to industrial premises, etc..-** (1) any person desirous of obtaining common licence in respect of a factory, industrial premises for beedi and cigar work and for engaging contract workers or any combination thereof or single licence for any one of them under the Code shall make an application in Form-58 to the designated authority on portal. Section 119

(2) For the purpose of licence referred to in sub-section (1), fee shall, respectively be payable at the rates specified Schedules I, II and III given under sub-rule (3).

(3) The designated authority upon being satisfied, shall issue license in Form-59 within forty five days from the date of receipt of application.

**SCHEDULE I**  
**Fees for the grant of licence for a factory for one calendar year**

Number of workers

Load connected (in Kilowatts)	Upto 19	From 20 to 50	From 51 to 100	From 101 to 150	From 151 to 250	From 251 to 500	From 501 to 1000	From 1001 to 1500	From 1501 to 2000	From 2001 to 3000	From 3001 to 4000	Above 4000
Without power	1000	1500	2000	2500	3000	4000	5000	6000	8000	10000	15000	20000
Upto 50	1500	2000	2500	3000	4000	5000	6000	8000	10000	15000	20000	25000
From 51 to 100	2000	2500	3000	4000	5000	6000	8000	10000	15000	20000	25000	30000
From 101 to 150	2500	3000	4000	5000	6000	8000	10000	15000	20000	25000	30000	35000
From 151 to 250	3000	4000	5000	6000	8000	10000	15000	20000	25000	30000	35000	40000
From 251 to 500	4000	5000	6000	8000	10000	15000	20000	25000	30000	35000	40000	50000
From 501 to 1000	5000	6000	8000	10000	15000	20000	25000	30000	35000	40000	50000	60000
From 1001 to 2000	6000	8000	10000	15000	20000	25000	30000	35000	40000	50000	60000	70000
From 2001 to 3000	8000	10000	15000	20000	25000	30000	35000	40000	50000	60000	70000	80000
From 3001 to 4000	10000	15000	20000	25000	30000	35000	40000	50000	60000	70000	80000	90000
From 4001 to 5000	15000	20000	25000	30000	35000	40000	50000	60000	70000	80000	90000	110000
Above 5000	20000	25000	30000	35000	40000	50000	60000	70000	80000	90000	100000	120000

**Schedule II**

**In respect of Industrial premise for Beedi and Cigar work**

Number of workers to be employed	Fee for license
21-100	15000
101-150	25000
151-200	35000
201-250	50000
251-500	75000
501-750	100000
751-1000	125000
Above 1000	150000

**Schedule III**

**In respect of engagement of Contractors.**

Number of workers to engaged/employed by contractor	Fee for license	Security to be deposited
Up to 100	5000	50000
101-150	10000	100000
151-200	15000	150000
201-250	20000	200000
251-500	25000	250000
501-750	30000	300000
751-1000	40000	400000
1001-1500	50000	500000
1501-2000	60000	600000
Above 2000	75000	750000

**150. Qualifications of Inspector-cum-Facilitator.-** No person shall be appointed as an Inspector-cum-Facilitator for the purpose of the Code, unless he possesses the qualifications specified for the post of Assistant Director of Factories in the Punjab Labour (Group-A) Service Rules, 2011, as amended from time to time.

Section 133  
(zzq), 135 (za)

**FORM-01**

[See rule 4 (6)]

**Application for grant of competency to a person**

1. Name
2. Date of birth
3. Name of the organization ( if self-employed)
4. Educational qualifications (copies of testimonials to be attached)
5. Details of professional experience

Name of the Organization	Period of service	designation	Area of Responsibility
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6. memberships, if any, of professional bodies
7. (i) Details of facilities (examination, testing etc.)  
(ii) Arrangements of calibrating and maintaining the accuracy of these facilities)
8. purpose for which competency certificate sought (specify the section of the Act)
9. whether the applicant has been declared as a competent person under any other state or statute (if so furnish details)
10. any other relevant information

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

I undertake

- (a) That in the event of any change in facilities at my disposal (either addition or deletion) I will promptly inform the Chief Inspector\_cum\_Facilitator.
- (b) to maintain the facilities in good working order calibrating periodically as per manufacturer's instructions or as per National standards; and
- (c) to fulfill and abide by all conditions stipulated in the certificate of competency and instructions issued by Chief Inspector\_cum\_Facilitator from time to time.

Place

signature

Date

**FORM-02**

**[See rule 4 (6)]**

Application for grant of competency to an institution

1. Name and full address of the organization.
2. organization's status (specify whether Individual, Government, autonomous, co-operative, corporate or private)
3. purpose for which competency certificate sought (specify the section of the Act)
4. whether the organization has been declared as a competent person under any other statute (if so furnish details)
5. Particulars of persons employed and possessing qualification and experience

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S. No.	Name and designation	Qualification	Experience	Section(s)/rule(s) Under which person's competency sought
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6. Details of facilities and arrangements made for their maintenance and calibration periodically.
7. any other relevant information
8. Undertaking

I ----- certify that shri----- whose details are furnished above, is in our employment and nominate on the behalf of organization for the purpose of being declared as competent person under the Code; I also undertake that I will-

(a) Notify to the Chief Inspector\_cum\_Facilitator in case the competent person leaves our institution.

(b) To maintain the facilities in good working order calibrating periodically as per manufacturer's instructions or as per National standards;

(c) notify to Chief Inspector\_cum\_Facilitator any change in facilities(either addition or deletion)

(d) to fulfill and abide by all conditions stipulated in the certificate of competency and

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instructions issued by Chief Inspector of Factories from time to time

I----- hereby declare that the information  
furnished above are correct to the best of my knowledge

Date

Signature

Place

Head of Institution

Moblie number

Email

**FORM-03****[See rule 4 (8)]****Certificate of competency issued to a person or an institution**

I ----- in exercise the power conferred on me under  
section 2(l) of The Occupational Safety, Health And Working Conditions Code  
2020 and the rules made there under, here by recognize shri-----  
----- (if employed in Name of institution) ----- to be  
Competent person for the purpose of carrying tests, examinations, inspections  
and certification for such **buildings, dangerous machinery, lifts, tackles,  
pressure plants, confined space, ventilation or plant and equipment as  
the case may be** in an establishment located in state of Punjab under section  
[\_\_\_\_\_] of the Code and the rules made there under.

This certificate is valid from \_\_\_\_ to \_\_\_\_

This certificate is subject to the following conditions as stipulated there under-

1. tests, examinations, inspections and shall be carried out in  
accordance with the provisions of Code and the rules made there  
under.
2. tests, examinations, inspections and shall be carried out under the  
direct supervision of competent person
3. the certificate of competency shall stand cancelled if the person

declared competent leaves the institution.

4. Competent person or institution shall submit reports as per provisions of the Code.
5. Any other condition Chief Inspector\_cum\_Facilitator may think fit.

Place

official seal signature

Date

Chief Inspector-cum-Facilitator,  
Punjab

**FORM-04**

*[See rule 6(1)]*

**Application for registration of an establishment as specified  
in section 3**

1	Name of the establishment
2	Address of the establishment
	Village/town
	Tehsil
	District
3	Nature of core activity to be carried in the establishment
4	Type of establishment(Factory/Building and Other Contruction/Contract Work/Mining/Dock Work/any other
5	Labour Identification Number
6	Name and address of the employer
7	Email, mobile of employer
8	a Maximum number of employees to be employed on any day during the year



b	Maximum number of employees were employed on any day during the last twelve months
9	Date of commencement of activity in the establishment
10	Electric load connected (in kilowatts)
11	Constitution of establishment( Proprietorship/ partnership/limited company/government department/local authority/cooperative)
12	Is building in which establishment situated own/ rented/allotted/through mutual agreement
13	Is establishment employing or will employ inter-state migrant workers? if yes details thereof in Form -05
14	National Industrial Classification Code
15	Contractor Details
a	Name and Address of Contractor
b	Number of contract labour to be engaged
c	Nature of work of contract labour
16	particulars of fee deposited <span style="float: right;">amount date</span>

Declaration by the employer:

- (i) I hereby declare that the particulars given above are true to the best of my knowledge and belief.
- (ii) I undertake to abide by the provisions of The Occupational Safety, Health and Working Conditions Code 2020 and rules made there under.

DSC of Employer

**FORM-05**  
**[See rule 6 (5)]**  
**Details of inter-state migrants employed/to be employed in an establishment**

- 1. Name of establishment:
- 2. Address of establishment:
- 3. Name and address of employer:
- 4. Details of inter-state migrant workers

S.No.	Name	Father/Husband's name	Permanent address	Aadhar number	Mobile number
			Town/ Village	District	State

DSC of Employer

**FORM-06**

[See rules 7(2) and 8]

**Register of Establishments**

Sr. No.	Registration number and date	Name and address of the establishment	Name of the employer and his establishment	Nature of core activity to be under taken in the on any day	Maximum workers to be employed	Probable date of comment	date of cessation	Remarks if any
1	2	3	4	5	6	7	8	9

**FORM-07**

*(See rule 11)*

**Notice of Commencement**

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

Name of employer

Digitally/electronically signed

**FORM-08**

*(See rule 11)*

**Notice of Cessation**

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

Name of employer

Digitally/electronically signed

# Health Register

Sr. No.	Name of Employee	Date of Employment	Age	Gender	Nature of Job	Date of Medical Examination	Results of Medical examination	Signature of the qualified medical Practitioner	Signature of Employer

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**FORM-10**

*(See rule 13)*

**Appointment Letter**

1. Name of the employee:
2. Name of employee's father:
3. Aadhar Number of employee:
4. UAN/ESI Number of employee:
5. Name and address of establishment:
6. (a) Registration number :  
(b) Labour Identification Number:
7. Designation:
8. Skill category of employee:
9. Wages (basic , dearness allowance):
10. Other allowances:
11. Avenues for achieving higher wages/position:
12. Medical Examination details:
13. Nature of duty:
14. Any other information:

Employer seal and signature

**FORM-11**

*(See rule 14)*

**Notice of Accident Resulting in death or bodily injury**

- 1 name of the employer
- 2 name and address of the establishment where accident took place?
- 3 Nature of activity being carried in establishment
- 4 (a) Branch or Department and exact place where the accident took place.  
(b) Details of contractor, if any
- 5 died/Injured person's

- 
- (a) Name
- (b) Address
- (c) Gender
- (d) Age (last birthday )
- (e) Occupation and designation
- (f) Whether local or Inter-State
- (g) Whether employee or out-sider
- 6 Date and time of accident
- 7 Describe briefly how the accident occurred.
- 8 Nature and extent of injuries
- 9 in case the accident happened while traveling in 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 employer
- (c) The transport is being operated by or on the behalf of the employer or some other person by whom it is provided in pursuance of arrangement made with employer, and
- (d) The vehicle being/not being operated in the ordinary course of public transport service
- 10 in case the accident happened while meeting emergency, state
- (a) its nature
- (b) whether the injured person was at the time of accident was employed for the purpose of and in connection with employer`s trade or business.
- 11 Name and addresses of witnesses
- I certify that to the best of my knowledge and belief the above particulars are correct in every respect.

Signature of employer

**FORM-12**

*(See rule 15)*

**Notice of Dangerous Occurrence**

1. Name of the employer
2. Name and address of the establishment where dangerous occurrence took place?
3. Nature of activity being carried in establishment
4. (a) Branch or Department and exact place where the dangerous or took place.  
(b) Details of contractor, if any
5. Date and time of dangerous occurrence
6. Describe briefly how occurred
7. Details of person/property/fauna-flora affected due to this occurrence
8. Name and addresses of witnesses

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

Signature of Employer

**FORM-13**

*(See rule 16)*

**Notice of Disease**

1. Name of Establishment
2. Address of Establishment
3. Address of employer
4. Nature of activity being carried out
5. Particulars of worker/employee
  - (a) Name
  - (b) Address
  - (c) Gender
  - (d) Age



6. Precise occupation of worker/employee
7. Nature of disease from which worker/employee is suffering

Signature of employer or Qualified Medical Practitioner

**FORM-14**

*(See rule 17)*

**Application by employee to Employer**

To,

The Employer/Safety Officer

----- (Name of establishment)

----- (Address of establishment)

Subject: intimation of unsafe/unhealthy situation

Sir

[Detail of unsafe/unhealthy situation and proposed suggestions]

Name of Employee

Designation

**FORM-15**

*(See rule 18)*

**Action taken report in regard unsafe/unhealthy situation**

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

[ Details of remedial action]

Employer

**Form -16**  
**(See rule 35)**

**Register of Compensatory Holidays**

Name and address of establishment:

S. No.	Name	Number in Adult Workers Register	Date of exempting order	Year	Weekly rest days lost due to exempting order	Date of compensatory holidays given	Lost rest days carried to next year	Remarks

**FORM-17***(See rule 38)***Notice of period of work**

Name and Address of establishment.....		Registration No.....	
		Rest day .....	
Periods of work	Total number of men employed	Total number of women employed	Nature of work      Remarks
	Adolescent      Adult	Adolescent      Adult	

**FORM -18**

*(See rule 39)*

## Register of Adult Workers

Name and Address of establishment:

[illegible]

## Adolescent Worker Register

[illegible]

[illegible]

**[See rule 45(2)(i)]**

## Month:

- | 1 | Name and address of the establishment:   |
|---|--|
| 2 | Name of the worker                       |
| 3 | Father's name                            |
| 4 | Serial number in Adult Workers Register. |
| 5 | Designation                              |

[illegible]

Name and address of establishment:

[illegible]



**FORM -23***(See rule 47)***Leave with wages register**

1	Name of employee
2	Number in Adult/Adolescent Register
3	Date of joining
4	Wage rate
5	Date of resignation/superannuation/ dismissal/death/etc.
6	Total number of days worked during the calendar year;
	I January
	II February
	III March
	IV April
	V May
	VI June
	VII July
	VIII August
	IX September
	X October
	XI November
	XII December
7	Leaves earned during the year
8	Balance of leaves from previous year
9	Total number at credit in the end of year
10	Leaves enjoyed during the year
11	Leaves encashed during the year
12	Balance leaves at the end of the year
13	remarks

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

**FORM -25***(See rule 50)***Name of Authorities**

Name of establishment	
Address of establishment	
Employer`s Name	
Details of Inspector_cum_	Name
Facilitator of the area	Address
	Email
Details of medical officer	Name
of the area	Address
	Email

**FORM -26***(See rule 51)***Summaries of Code/Rules****FORM-27***(See rule 54)***Annual Return**

For the Year ending 31st December,\_\_\_\_\_

1. Registration number of establishment:
2. Name of establishment:
3. Address of establishment:
4. Name of occupier./Employer
5. Name of the manager.
6. type of establishment: A. Factory [ 2w(i)/2w(ii)/81] B. Motor transport C.BAOC D. other
7. Nature of activity
8. NIC Code

9. hazardous: MAH or Non-MAH

10. Ownership

- (a) Public sector
- (b) Private sector
- (c) Joint sector
- (d) Co-operative sector
- (e) proprietorship
- (f) partnership
- (g) government department/local authority

11. is the establishment seasonal?

12. no. of days worked in year.

13. (i) No. of Man-days worked during the year.

Particular	Male		Female		Total	
	Local	Migrant	Local	Migrant	Local	Migrant
Adult						
Adolescent						
total						

(ii) Average number of workers employed daily (man-days worked divided by days worked)

Particular	Male		Female		Total	
	Local	Migrant	Local	Migrant	Local	Migrant
Adult						
Adolescent						
total						

14 Total No. of man-hours worked including overtime but excluding the rest interval

Particular	Male		Female		Total	
	Local	Migrant	Local	Migrant	Local	Migrant
Adult						
Adolescent						

15. Average number of workers per week

16. In respect of establishments carrying on processes or operation declared dangerous under furnish the following information

Name of the dangerous process or operation carried on (See explanatory Note 'G')	Average number of persons employed daily in each of the process or operation given (See explanatory Note 'D')	Number of persons			
		Medically examine		declared unfit	
		Male	Female	Male	Female
1	2	3	4	5	6

(i)

(ii)

(iii) etc.

17. In respect of establishments carrying on processes or operation declared hazardous under section , furnish the following information

Name of the dangerous process or operation carried on (See explanatory Note 'G')	Average number of persons employed daily in each of the process or operation given (See explanatory Note 'D')	Number of persons			
		Medically examine		declared unfit	
		Male	Female	Male	Female
1	2	3	4	5	6

(i)

(ii)

(iii) etc.

**Leave with wages**

particular	Total number of workers	Number of workers entitled for leave with wages	Number of workers granted leave	Number of workers dismissed/ died/ discharged/ left the service	Number of workers in respect of whom wages in lieu of leave were paid
Adult	male				
	female				
Adolescent	male				
	female				
transgender					

**Safety officers**

Number of safety officer required	Number of safety officer appointed
--------------------------------------	---------------------------------------

**WELFARE OFFICERS**

Number of welfare officer required	Number of welfare officer appointed
---------------------------------------	--

**Welfare facilities**

Shelters or Rest-Rooms or Lunch-Rooms
Canteen
Creches
Ambulance Room

**ACCIDENTS**

Type of accident	Number of accident	Man-days lost In case worker returned to duty during year in which accident occurred	Man-days lost In case worker returned to duty during succeeding year in which accident occurred	Number of accidents covered under MSIHC Rules
Fatal				
Non-fatal				
Dangerous occurrence				
total				

Certified that the information furnished above is to the best of my knowledge and belief, correct.

Signature of the employer

Date.....

Explanatory Notes :

1 The average number of workers employed daily should be calculated by dividing the aggregate number of attendance on working days (that is, men-days worked) by the number of working days in the year. In reckoning attendance, attendance by temporary as well as permanent employed should be counted, and all employees should be included, whether they are employed directly or under contractors. Attendance on separate shifts (e.g. night and day shifts) should be counted, separately. Days on which the establishment was closed for whatever cause, and days on which the manufacturing processes were not carried on should not be treated as working days. Partial attendance for less than half a shift on a working day should be ignored, while attendance for half a shift or more on such day should be treated as full attendance.

2 For seasonal establishment, the average number of workers employed during the working season and the off-season should be given separately. Similarly the number of

days worked and average number of man hours worked per week during the working and off-season should be given separately.

3 The average number of hours worked per week means the total actual hours worked by all workers during the year excluding the rest intervals but including overtime work divided by the product of total number of workers employed in the establishment during the year and 52 weeks. In case the establishment has not worked for the whole year, the number of weeks during which the factory worked should be used in view of the figure 52.

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

**FORM-28**

*[See rule 57(5)]*

**Notice of Intention to have sample analysed**

Number:

date:

To

.....

.....

Take notice that it is intended to have analysed the sample of\*

.....which has been taken today, the.....

.....day of.....20..... from\*

.....

(Name of the Inspector-cum\_Facilitator who orders sampling).

(Seal)

Date .....



**FORM-29***[See rule 57(9)]***Report by Laboratory**

Report No. ....

Date .....

I hereby certify that I .....Analyst working in.....duly  
received on the.....day of ..... 20..... from  
\*.....a sample of .....for analysis.

The sample was in a condition fit for analysis as reported below.

I further certify that I have analysed the aforementioned sample on .....and  
declare that the result of the analysis to be as follows:

\*\* .....

The condition of seals, fastening of samples on receipt was as follows:

Signed this.....day of.....20.....

Address .....

.....

Signature

(Laboratory Analyst)

**FORM-30***(See rule 59)***Certificate of Fitness**

Certificate Number:

date:

1. Name of Adolescent:
2. Father's Name:
3. Address:

- 
4. Gender:
  5. Age:
  6. Descriptive marks
  7. Remarks

Name and Signature of Medical Officer

**FORM-31**

[See rule 59(8)]

**Register of medical examination of adolescents**

S. No.	Name of Adolescent	Address	Date of examination	Date of deposit of fee	Whether fit or unfit	Signature of adolescent	Signature of medical officer

**FORM-32**

(See rules 62 and 63)

**Application for issue and grant, renewal of license for a contractor**

- (i) Whether the application is for: (a) renewal of license (b) work-specific license
- (ii) Name and address of the contractor (including his father's name in case of individuals)
- (iii) Father's name
- (iv) Particulars of establishment where contract labour is to be employed:
  - (a) Name and address of the establishment:
  - (b) Type of business, trade, industry, manufacture or occupation carried on in the establishment.
  - (c) Number & date of Certificate of license of the establishment under the

---

code.

(d) Name and address of the Principal Employer:

(iv) Particulars of the Contract Labour:

(a) Nature of work in which contract labour is employed or to be employed in the establishment:

(b) Duration of proposed contract work (give particular of proposed date of commencing & ending)

(c) Name and address of the authorised person of Contractor at establishment

(d) Maximum number of contract labour proposed to be employed in the establishment on any date

(e) No. of inter state migrant workers to be employed: Fill details in Form no. 5 as mentioned in Rule 6

(v) Amount and particulars of Licence fee deposited:

(vi) Amount and particulars of security deposit, if any, or requested to be adjusted:

Signature of the Applicant-Contractor

### **FORM-33**

*[See rules 62(4), 63(2) and 64(3)]*

**License to contractor**

**Government of Punjab**

**Office of Designated Authority under the Occupational Safety, Health And  
Working Conditions Code 2020**

No: .....

Date: .....

Fee paid: .....

Security deposited.....

Licence is hereby granted to.....

under Section 47(1) of The Occupational Safety, Health And Working Conditions Code 2020  
subject to the conditions specified in annexure.

2. This licence is for doing the work of .....  
in the establishment M/S.....

3. The number of workmen employed, as contract labour in the establishment  
shall not, on any day, exceed.....

4. This licence shall remain in force till 31.12.20...

Place :

Date :

**FORM-34**

*(See Rule 64)*

**Application for amendment of licence for a contractor**

- (i) Name and address of the contractor
- (ii) License number:
- (iii) Particulars of amendment:
  - (a) Name
  - (b) address :
  - (c) Number of contractor labour to be employed/supplied
  - (d) No. of inter state migrant workers to be employed : Fill details in Form no. 5 as mentioned in Rule 6
  - (e) Nature of work for contractor labour to be employed/supplied
- (iv) Amount of additional Licence fee deposited:
- (vi) Amount of additional security:

Signature of the Applicant-Contractor

*(See rule 67)*

[illegible]

**FORM-36**

*(See rule 68)*

**Notice of intimation of work-order by contractor**

I ..... Shri of M/s..... having license Number..... hereby intimate that work order to supply labour/execute work (Name of work) from the establishment (Name and address ) has been issued and work shall commence from.....

Signature of the Contractor

**FORM-37**

*(See rules 70 and 73)*

**Register of Security Deposit/Refund/Release**

S. No.	Name and Address of the contractor	Amount of security deposited	Date of security deposit	Amount released from security deposit for payment	Reference of order of authority for release of payment from security deposit	Remarks
1	2	3	4	5	6	7

**FORM-38**

*[See rule 75(1)]*

**Application under section 57(2)**

- Name of aggrieved party:
- Address of communication:
- Details of grievance:
- Reasons of claim:
- Details of documents attached:

Signature of aggrieved party

## FORM-39

[See rule 76(2)]

## Register of Journey Allowance

Name and Address of establishment:

Establishment registration number:

S. No.	Name of inter-state worker	Entry in adult/adolescent worker register	Permanent address of inter-state worker	Period of journey	Number of family members	Mode of journey	Amount paid	Signature of inter-state worker

---

**FORM-40**

*(See rule 79)*

**Format of agreement**

This agreement is made on this ..... of .....20.....  
between Messers ..... having office at ..... (a sole  
proprietary concern/a firm registered under the Partnership Act, 1932/a  
Company incorporated and registered under the Companies Act, 1956)  
(hereinafter referred to as the "Producer") on the first part and Shri/Smt/Kumari  
..... son/daughter/wife of Shri ..... residing at .....  
(hereinafter 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:

Whereas the Producer is engaged in the audio visual production as defined in  
section 2(e) of The Occupational Safety, Health And Other Working Conditions  
Code 2020.

Whereas the said producer is desirous to engage the Audio Visual Worker in  
the capacity of a ..... in the aforesaid Audio Visual production and  
the Audio Visual Worker accepts the same :

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 production 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 inconsideration of the Audio Visual Workers' 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 film, 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 Audio Visual 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 Audio Visual production, whichever is earlier.

6. It is agreed by the Producer that for the purposes of this agreement,

(a) a working day shall mean a period not exceeding eight consecutive hours (to include one hours' break for rest and refreshments) ;

(b) a working week shall mean a six-day week from Monday to Saturday, both inclusive, and the Audio Visual Worker is not liable to work on Sundays and Public Holidays :

(c) the Audio Visual worker shall not be required to work for more than five consecutive hours without a break ; and

(d) a period of not less than twelve hours shall elapse between the Audio Visual Worker's release from the studio/location/work-place and the next succeeding call.

7. 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 travelling 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 organisations.

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 titled 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 film 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 workers' 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 film 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 Audio Visual production.

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 production may direct and shall comply with all reasonable instructions that he may give for the production of the Audio Visual production.

17. That the Audio Visual -worker shall comply with all the regulations of the studio, location or work place as the case may be.

18. 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.

19. That the provisions of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952 shall be applicable to this agreement.

20. That the Producer shall not utilise the work of the Audio Visual worker in any f Audio Visual production, other than the Audio Visual production under

this agreement, without prior permission of the Audio Visual worker.

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

1.	Witness	Producer
	Name	
	Address	
2.	Witness	Audio Visual Worker
	Name	
	Address	

**FORM-41**

[See rule 86(4)]

**Application for Permission to Construct/Addition/Alteration/  
Erection/Take into use any premises as a factory**

I hereby submit the application for [construction/addition/alteration/erection/  
take into use [[tick which applicable] any premises as a factory as below;

1. (a) Name of the applicant
- (b) Address of the applicant
- (c) Applicant's calling in relation to factory
2. Full name of the factory
3. Location of factory
  - (A) Name of Village/City, Tehsil & Distt.
  - (B) If in village then Khasra Numbers
  - (C) If in city then Street/Mohalla/Colony/Bazzar/Road/ward number
  - (D) If in industrial focal point/industrial park then plot number
  - (E) If above or below the ground level then floor on which it is situated

Signature of the applicant

[See rule 86(4) (c)]

### Particulars of Rooms

**Name and Address of the Factory:**

Number of floors:

Whether having basement:

[illegible]

---

**FORM-43**

*(See rule 88)*

**Stability Certificate**

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

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

Signature of competent person and date\_\_\_\_\_

Name of competent person\_\_\_\_\_

Address of competent person\_\_\_\_\_

Signature of Occupier and date\_\_\_\_\_

Name of Occupier\_\_\_\_\_

(See rule 92)

# Register of Building Plans of Factories

[illegible]

**FORM-45**  
**(See rule 105)**  
**Monthly Return**

Return for the month ending on.....

Name of the factory .....

Address of the factory.....

License Number.....

Name of the hazardous process/dangerous operation undertaken.....

Number of workers normally employed during the month	Number of workers employed in the hazardous manufacturing process	Date of examination of the worker engaged in the dangerous operation	Name and address of the examining medical officer	Number of workers examined	Number of workers declared fit	Number of workers declared unfit with details	Details of alternative work given to workers who have declared unfit
1	2	3	4	5	6	7	8



---

**FORM-46***(See rules 105,116,141)***CERTIFICATE OF FITNESS FOR HAZARDOUS OR PROCESS  
DANGEROUS OPERATIONS**

1. Serial No. \_\_\_\_\_
2. I certify that I have Personally examined \_\_\_\_\_ (Name of person examined) having serial Number \_\_\_\_\_ (In Adult Worker Register) who is desirous of being employed in \_\_\_\_\_ (hazardous process/ dangerous operation) in factory \_\_\_\_\_
3. He is fit to be employed
4. He may be produced for further examination after a period of \_\_\_\_\_
5. He has gone undergone following tests/examinations:

---

S.No.	Name of test/examination	remarks
-------	--------------------------	---------

---

6. Remarks of medical officer:

Name and signature of medical officer

(See rule 105, 116, 141)

[illegible]

**FORM-48**

(See rule 105 Schedules XXVIII, XXX, XXXIII)

**Register of Tight Clothes**

S. No.	Name and father's name of worker	Designation or nature of work	Department	Date when tight clothes given	Signature or thumb impression of worker
1	2	3	4	5	6

**FORM-49**

(See rule 105)

**Examination of ventilation/exhaust system**

- 1 Description of ventilation/exhaust system
- 2 Hood
  - (a) Serial No. of Hood.
  - (b) Contaminant captured.
  - (c) Capture velocities (at points to be specified).
  - (d) Volume exhausted at Hood.
  - (e) Hood static pressure Design Actual Value
- 3 Total pressure drop at
  - (a) Joints
  - (b) Other points of system (to be specified)
- 4 Transport Velocity in Duct (at points alone dust to be specified)
- 5 Air cleaning Device.
  - (a) Type used.
  - (b) Velocity at inlet.

- 
- (c) Static Pressure at inlet.
  - (d) Velocity at outlet.
  - (e) State Pressure at outlet.
- 6 Fan.
- (a) Type used.
  - (b) Volume handled.
  - (c) Static pressure.
  - (d) Pressure drop at outlet of fan.
- 7 Fan Motor. (a) Type
- (b) Speed and horse Power.
- 8 Particulars of defects, if any, disclosed during test in any of the above components.

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

Name and signature of competent person

.....

### **FORM-50**

*(See rule 106)*

#### **APPLICATION FOR THE SITE APPRAISAL COMMITTEE**

1. Name and address of the applicant.
2. Site Ownership Data:
  - 2.1, Revenue details of the site such a Survey No., Plot No.
  - 2.2. Whether the proposed site attracts the provisions of section 3 of Environments Protection Act, 1986, if so the nature of the restrictions: and
  - 2.3. 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 details nearby the proposed site

(a) Name of adjoining manufacturing units and human habits, educational and training institutions, petrol installations, storages liquefied Petroleum Gas and other

hazardous substances, if any, within one kilometre from the proposed unit.

(b) Water sources (rivers, streams, canal dams, water filtration plants) in the vicinity.

(c) Nearest hospitals, Fire-stations, Civil Defence Stations and Police Station and their distances.

(d) Details of high tension electrical transmission lines, pipe lines for oil, gas sewerage, if any, passing through the site, and

(e) Location of railway stations, railway lines, Scheduled road, bypass,, if any near the site.

3.2. Plot Plan of the factory, showing entry and, exit points, roads.

### 4 Project Report.

4.1 A summary of the salient features of Project.

4.2. Maximum number of persons like be working in the factory.

4.3. Maximum amount of power and requirements and source of supply.

4.4. Block diagrams of the buildings installations, in the proposeds and

4.5. Details of housing colony, hospital, school and other infrastructural facilities proposed.

### 5. Organisation structure of the proposed manufacturing unit/factory :

5.1. Person responsible far protection of safety, health and environment.

5.2. Proposed health and safety policy of the proposed enterprise.

### 6. Manufacturing Process Information :

6.1. Process flow diagrams.

6.2 Brief write up on process and technology.

6.3 Critical Process parameters such as pressure buildup,

temperature rise and run-away reaction.

6.4 Other external effects critical to the process having safety implications such as ingress of moisture or water, contact with incompatible substances sudden power failure ; and

6.5 High lights of the built-in-safety/pollution control devices or measures incorporated in the manufacturing technology.

7. Information of Hazardous Materials :

7.1 Raw materials, intermediates, products and byproducts and their quantities (enclosed Material Safety Data Sheet in respect of each hazardous substances).

7.2 Main and intermediate storages proposed for raw material /intermediates/ products/Bye Products (maximum quantities to be stored at any time)

7.3 Transportation methods to be used for materials in flow and out flow, their quantities to be stored at any time ; and

7.4 Safety measures proposed for :

-----handling of materials.

-----internal and external transportation, and

-----disposal (packing and forwarding of finished products).

8. Information on Dispersal/Disposal of wastes and pollutants ;

8.1 Major Pollutants (gas, liquids, solid)their characteristics and quantities (average and at peak loads).

8.2. Quality. And quantity of solid wastes generated, methods of their treatment and disposal.

8.3. Air, Water and Soil Pollution problems anticipated and the proposed measures to control the same, including treatment and disposal of effluents.

9. Process Hazards Information :

9.1. Enclose a copy of the report on environmental impact assessment.

9.2. Enclosed a copy of the report on Risk Assessment Study : and

9.3. Published (open or classified) reports if any, on accident situation/ occupational health hazards or similar plants (within or outside the country).

---

10. Information of proposed Safety and Occupational Health Measure ;

10.1. Details of fire fighting facilities and minimum quantity of water cartaoxide and other fire fighting measures needed to meet the emergencies ; and

10.2. Details of in-house medical facilities Proposed.

11. Information on Emergency preparedness :

11.1. On Site Emergency Plan : and

11.2. Proposed arrangements, if any for mutual aid scheme with the group of neighbouring factories.

I certify that the information furnished above is correct to the best of my knowledge and nothing has been concealed while furnishing it.

Signature

Date

Designation

### **FORM-51**

*(See rules 108, 109 and 110)*

#### **Material Safety Data Sheet**

#### **1. CHEMICAL IDENTITY**

(i) Chemical Name

(ii) Chemical Classification

(iii) Synonyms Trade Name

(iv) Formula

(v) C.A.S. No.

(vi) U.N. No.

1. 2.

3. 4.

**2. PHYSICAL AND CHEMICAL DATA :**

- (i) Boiling Range/Point oC
- (ii) Physical State Appearance
- (iii) Melting Freezing Point oC
- (iv) Vapur Pressure Odour at 350 C mm Hg
- (v) Vapur Density (Air-I) Solubility in Water at 300 C Others
- (vi) Specific Gravity Water-1

**3. FIRE AND EXPLOSION HAZARD DATA :**

- (i) Flammability Yes/No
- (ii) LEL %
- (iii) UEL %
- (iv) Flash Point 0C
- (v) Autoignition Temperature
- (vi) TDG
- (vii) Explosive
- (viii) Sensitivity to impact
- (ix) Explosion Sensivity to Static Electricity
- (x) Hazardous Combustion Products
- (xi) Hazardous Polymerisation
- (xii) Combustible Liquid
- (xiii) Corrosion Material
- (xiv) Flammable Material Oxidiser Others Pyrophoric Material Organic Peroxide

**4. REACTIVITY DATA :**

- (i) Chemical Stability
- (ii) Incompatibility With other Material
- (iii) Reactivity



(iv) Hazardous Reaction Products

**5. HEALTH HAZARD DATA :**

(i) Routes of Entry

(ii) Effects of Exposure / Symptoms

(iii) Emergency Treatment

(iv) ILV (ACGIH) ppm mg/m<sup>3</sup>

(v) STEL ppm mg/m<sup>3</sup>

(vi) Permissible Exposure Limit ld ppm mg/m<sup>3</sup> Odour Threshold ppm mg/m<sup>3</sup>

50 LD

50 NFPA Hazards Signals Health Flammability Stability Special

**6. PREVENTIVE MEASURES :**

(i) Personnel Protective Equipment

(ii) Handling and Storage

(iii) Precautions

**7. EMERGENCY AND FIRST AID MEASURE :**

(i) FIRE FIRE EXTINGUISHING Media

(ii) FIRE Special Procedures

(iii) Unusal Hazards

(iv) First – Aid Measures

(v) EXPOSURE

(vi) Antidots/Desages

(vii) Steps to be taken SPILLS

(viii) Waste Disposal Method

**8. ADDITIONAL INFORMATION OR REFERENCE :**

**9. MANUFACTURE AND SUPPLIERS DATA :**

(i) Name of Firm

- (ii) Mailing Address
- (iii) Telephone / Telex Contact person
- (iv) Nos. Telegraphic in Emergency
- (v) Address
- (vi) Local Bodies involved
- (vii) Standard Packing
- (viii) Trameard Detail of reference
- (ix) Others

#### **10. DISCLAIMER Information**

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

#### **FORM-52**

(See rule 123)

#### **Application to appropriate authority under section 90**

- a. Name of occupier or manager:
- b. Name and Address of factory:
- c. Details of grievance:
- d. Reasons of claim:
- e. Details of documents attached:

Name and signature of occupier/manager

**FORM-53**  
**(See rule 145)**  
**Penalty Register**  
Office of Deputy Director of Factories..... (Address of office)  
For the month of..... (Name of month with year)

S.N o.	Name and addre ss of perso n on whom penalt y impos ed	Name and address of establish ment in relation to person on whom penalty imposed	Date and numbe r of referen ce of imposi ng penalt y	Offen ces for which penalt y impos ed	Amo unt of penalt y	Date of depo sit	Wheth er appeal prefer red	Signat ure of officer imposi ng penalt y	Remar ks
1	2	3	4	5	6	7	8	9	10

(a) Total penalty collected at the end of month:

(b) Details of transfer of amount to fund:

(i) Date:

(ii) Amount:

(iii) Bank details of transfer:

Signature and seal of Deputy Director of Factories

---

**FORM-54**

**(See rule 146)**

**Performa for Appeal before the Appellate Authority against Order of  
Imposing Penalty**

To,

Appellate Authority

[Under Section 111(2) of the Code]

Sir,

I undersigned with following details prefer an appeal against order of -----  
------(details of officer imposing penalty) under section 111(2) of The  
Occupational Safety, Health And Working Conditions Code 2020.

1. Name and address of the establishment.
2. Name of the person preferring appeal and address details
3. Amount of penalty imposed by the officer.
4. Ground for Appeal with supporting documents

**Declaration**

I/We hear by declare that the particulars given above are true to the best of  
my/our knowledge and belief and I/We hereby declare that nothing has been  
concealed or any fact has been mis-represented in the above calculation made  
by me/us.

Signature of person preferring appeal

Name:

Date:

Place:

Mobile Number:

E-mail (if any):

**FORM-55**

*[See rule 147(2)]*

**APPLICATION UNDER SUB-SECTION (1) OF SECTION 114  
FOR COMPOSITION OF OFFENCE**

To,

The authorised officer

[under section 114(1)]

1. Name of applicant .....
2. Father's / Husband's name of the applicant .....
3. Address of the applicant .....
4. Name and Address of establishment in relation to applicant.....  
.....
5. Particulars of the offence .....
6. Section of the Code under which the offence is committed .....
7. Maximum fine provided for the offence under the Code.....  
.....
8. Whether prosecution against the applicant is pending or not .....
9. Whether the offence is first offence or the applicant had committed any  
other offence prior to the offence, if had committed, then, full detail of  
the offence .....
10. Any other information which the applicant desires to provide  
.....  
.....

Applicant

(Name and signature)

Dated:

**FORM-56**  
[See rule 147(6)]  
**Compounding/Composition Register**  
Office of Additional/Deputy Director of Factories..... (Address of  
office)

For the month of..... (Name of month with year)									
S. No.	Name and address of person of whom offence compounded	Name and address of establishment in relation to person of whom offence compounded	Date and number of reference of composition/compounding	Offences which are compounded	Amount of penalty	Date of deposit	Whether appealed	Signature of officer	Remarks
1	2	3	4	5	6	7	8	9	10

(a) Total penalty collected at the end of month:

(b) Details of transfer of amount to fund:

(i) Date:

(ii) Amount:

(iii) Bank details of transfer:

Signature and seal of Additional/Deputy Director of  
Factories

**FORM-57***(See rule 148)***Record of Social Security Fund**

S.No.	Amount received for fund	Source from received	Date of receive	Details of credit to the Punjab Unorganized Workers Welfare Board		
				Amount	Date	Bank details
1	2	3	4	5	6	7
				.		

---

**FORM-58**

**(See rules 82,84,96,97,98,99,149)**

**Application for grant/ renewal/ amendment/ transfer of license as a  
factory/industrial premises for beedi or cigar/engagement of  
contractor**

1. Application for license –
  - (a) as a factory
  - (b) for engagement of contractor
  - (c) Industrial premises for beedi and cigar work
2. Full name and postal address of the establishment
3. Registration of establishment under the Code:
4. Details of person who will be occupier/principal employer
  - (a) Name
  - (b) Permanent address
  - (c) Local address
  - (d) Email
  - (e) Mobile number
5. Full name and address of the owner of the Premises or building (including the percents Thereof)
6. Core activity to be under taken along with details of hazardous substances as per section 2(za) of the Code.
7. NIC code
8.
  - (a) Total Number Workers to be employed in the period of license
  - (b) Total Number Workers were employed during last calendar year
9. Particulars of Contract Labour:
  - (a) Nature of work in which contract labour is employed or to be employed:
  - (b) Maximum number of contract labour to be Employed on any day:
  - (c) Number of Inter-State Migrants(Fill details in Form



1002 PUNJAB GOVT. GAZ. (EXTRA), MAY 17, 2021  
(VYSK 27, 1943 SAKA)

no. 5 as mentioned in Rule 6

- (d) Estimated date of commencement of each Contract work under each contractor:
- (e) Estimated date of termination of employment of contract labour under each contractor:

10. Power:

Connected or proposed to be connected (in KW)

11. Furnish Reference:

- (a) approval of plans
- (b) stability certificate
- (c) disposal of trade waste/effluents/hazardous waste/e-waste/biomedical waste (which is applicable)

12. Details of fee

S.No	Particular	Amount	Date
a	Factory		
b	Engagement of contractor		
c	Industrial premises		

DSC of Employer/Occupier

**FORM-59**

**(See rules 82,96 and 149)**

**Common Licence For Factory/Beedi & Cigar Work/Engaging  
Contract Labour**

Government of Punjab

Office of designated authority under section 119 of The Occupational  
Safety, Health And Working Conditions Code 2020

License number:

Date of issue:

A license is granted to Shree.....(Name of Occupier) of establishment  
M/S\_\_\_\_\_ registered under the section-3 of the code having registration  
number\_\_\_\_\_ as below;

A. To run as a factory in which manufacturing process \_\_\_\_\_  
shall be carried by employing not more than \_\_\_\_\_ workers and power not  
more than \_\_\_\_\_ KW for the purpose of The Occupational Safety, Health And  
Working Conditions Code 2020 and rules made there under and whose plans  
are approved by Chief Inspector\_cum\_Facilitator vide number \_\_\_\_\_ date .

This license will remain in force from \_\_\_\_\_ till \_\_\_\_\_

Fee \_\_\_\_\_ Date of deposit \_\_\_\_\_

B. Engagement of contract labour subject to the conditions annexed to this  
license as given below;

Fee ..... Date of deposit.....

---

1 Maximum number of workers to be  
employed as contractor labour

---

2 Nature of activity for which contractor  
labour shall be engaged

---

C. To use as a industrial premises to carry work of beedi or cigar by  
employing not more than \_\_\_\_\_ workers for the purpose of The Occupational  
Safety, Health And Working Conditions Code 2020 and rules made there under  
and whose plans are approved by Chief Inspector\_cum\_Facilitator vide  
number \_\_\_\_\_ date .

This license will remain in force from \_\_\_\_\_ till \_\_\_\_\_

Fee \_\_\_\_\_ date of deposit \_\_\_\_\_

Name And DSC of designated authority

**VIJAY KUMAR JANJUA**

Additional Chief Secretary to Government of Punjab,  
Department of Labour.