

Panaji, 09th July, 2026 (Ashadha 18, 1948)

SERIES I No. 15

OFFICIAL GAZETTE

GOVERNMENT OF GOA

PUBLISHED BY AUTHORITY

SUPPLEMENT

No. 2

GOVERNMENT OF GOA

INSPECTORATE OF FACTORIES & BOILERS

Notification

CIF/104(S-II)Part-I/2026/811

Date : 02-Jul-2026

The following draft Rules which the Government of Goa proposes to make in exercise of the powers conferred by Sections 133 and 135 of the Occupational Safety, Health and Working Conditions Code, 2020 (Central Act No. 37 of 2020) and in supersession of the Goa Factories Rules, 1985, published in the Extraordinary Official Gazette, Series I No. 5 dated 03/05/1985, the Goa Control of Industrial Major Accident Hazards Rules, 1993, published in the Official Gazette, Series I No. 7 dated 13/05/1993 and the Goa Factories (Occupational Safety and Health Audit) Rules, 2014, published in the Official Gazette, Series I No. 27 dated 04/10/2014, except in respects of things done or omitted to be done before such supersession, are hereby pre-published as required by sub-section (1) of Section 133, sub-section (1) of 135 and Section 137 of the said Code for information of all the persons likely to be affected thereby and notice is hereby given that the said rules will be taken into consideration by the Government after expiry of a period of forty-five days from the date of publication of this Notification in the Official Gazette.

All objections and/or suggestions to the said draft rules may be forwarded to the Secretary (Factories and Boilers), Government of Goa, Secretariat, Porvorim, Goa, before the expiry of the said period of forty-five days so that they may be taken into consideration at the time of finalization of the said draft Rules.

PRELIMINARY

1. *Short title and commencement.*— (1) These rules may be called the Goa Occupational Safety, Health and Working Conditions (Factories) Rules, 2026.

(2) They shall come into force on the date of their final publication in the Official Gazette.

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

- (a) “Appellate Officer” means a person notified by the Government as the Appellate Officer under sub-section (1) of section 4 of the Code;
- (b) “Appellate Authority” means a person appointed by the Government as the Appellate Authority under sub-section (3) of section 111 of the Code;
- (c) “Artificial humidification” means the introduction of moisture into the air of a room by any artificial means whatsoever except the unavoidable escape of steam or water vapour into the atmosphere directly due to a manufacturing process:

Provided that the introduction of air directly from outside through moistened mats or screens placed in openings at times when the temperature of the room is 80 degrees or more, shall not be deemed to be artificial humidification;

- (d) “belt” includes any driving strap or rope;
- (e) “calendar year” means the period of twelve months beginning with the first day of January in any year;
- (f) “Code” means the Occupational Safety, Health and Working Conditions Code, 2020 (Central Act No.37 of 2020);
- (g) “Compounding Officer” means an officer notified by the Government as the Appellate Officer under sub-section (1) of section 4 of the Code;
- (h) “Dangerous machine” means a machine as may be specified by the Government by notification in the Official Gazette, which the Government is of the opinion that it is of such a nature that any accident in the course of operation thereof is likely to cause to its operator death, dismemberment of any limb or other bodily injury;
- (i) “Degrees” (or temperature) means degrees on the Fahrenheit scale;
- (j) “District Magistrate” includes such other officer as may be appointed by the Government in that behalf;
- (k) “Enquiry Officer” means an officer appointed by the Government as the Enquiry Officer under sub-section (1) of section 111 of the Code;
- (l) “Form” means a Form appended to these rules;
- (m) “Fume” includes gas or vapour;
- (n) “Government” means the Government of Goa;
- (o) “Hazardous substance” means a hazardous chemical as defined in clause (e) of rule 2 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and any other such substance which the Government may notify from time to time with or without quantities so specified;
- (p) “Health Officer” means the Health Officer under the Directorate of Health Services or such other officers as may be appointed by the Government in that behalf;
- (q) “Hygrometer” means an accurate wet and dry bulb hygrometer conforming to the prescribed conditions as regards construction and maintenance;

- (r) “Industrial activity” shall have the same meaning as assigned to it in clause (h) of rule 2 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989;
- (s) “Inspector-cum-Facilitator” means an officer appointed under section 34 of the Code which includes Chief Inspector-cum-Facilitator, Deputy Chief Inspector-cum-Facilitator and Inspector-cum-Facilitator;
- (t) “Institution” means a firm, association, body, company, society or a trust registered in accordance with the law in force;
- (u) “Isolated storage” shall have the same meaning as assigned to it in clause (i) of rule 2 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989;
- (v) “Major Accident Hazards (MAH) installation” shall have the same meaning as assigned to it in clause (ja) of rule 2 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989;
- (w) “Maintained” means maintained in an efficient state, in efficient working order and in good repair;
- (x) “Manager” means the person responsible to the employer for the working of the factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code;
- (y) “Pipeline” shall have the same meaning as assigned to it in clause (k) of rule 2 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989;
- (z) “Portal” means the Goa Single Window System website (<https://goaonline.gov.in>) of the Government for delivering services under the Code and the rules made thereunder;
- (aa) ‘Qualified Nurse’ means a person who possesses a qualification as Bachelor’s Degree in Nursing recognized under the Indian Nursing Council and who is registered with registered body of any State in India;
- (bb) “Quarter” means period of three consecutive months beginning on 1st of January, 1st of April, 1st of July and 1st of October;
- (cc) “Registering Officer” means a person appointed by the Government as the Registering Officer under sub-section (1) of section 3 of the Code;
- (za) “section” means a section of the Code;

2. Words and expressions used herein but not defined shall have the same meanings as are respectively assigned to them in the Code.

3. *Competent Person.*— (1) The Chief Inspector-cum-Facilitator may recognize any person as a competent person within such area and for a period not exceeding two years for the purposes of carrying out test, examinations, inspections and certification for such buildings, dangerous machinery, hoists and lifts, lifting machine and lifting tackles, pressure vessel or plant, confined space, ventilation system and such other process or plant and equipment as stipulated in the Code and these rules located in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, if such person possesses the qualifications, experience and other requirements as set out in the schedule hereto.

(2) The competent person recognized shall be certified to be physically fit by a qualified medical practitioner for the purpose of carrying out the tests, examination and inspection. Tests to be conducted for

the purpose of ascertaining the fitness shall consist of physical examination, eye test and any other test(s) which the qualified Medical Practitioner may specify.

(3) The Chief Inspector-cum-Facilitator may also recognize an institution, having persons possessing qualification, experience and other requirements as set out in the Schedule hereto and meeting the criteria specified under sub-rule (2) for the purposes specified under sub-rule (1) as a competent person within such area and for a period not exceeding two years.

(4) The person or an institution desirous of being recognized as a competent person, shall submit to the Chief Inspector-cum-Facilitator an application in Form I or II, as the case may be, accompanied by the documents in support of possessing qualifications, experience and fulfilling other requirements and a treasury receipt of forty thousand rupees towards fees which shall be non-refundable. The said application shall also be accompanied by a valid calibration certificate of the equipment's available at the disposal of the applicant for carrying out tests, examination and inspection.

(5) The Chief Inspector-cum-Facilitator on receipt of an application in Form I or II, as the case may be, from a person or an institution intending to be recognized as a competent person, for the purposes of this Code and these rules shall register such application and within a period of thirty days of the date of receipt of application, either after having satisfied himself as regards competence and facilities available at the disposal of the applicant, recognize the applicant person or an institution as a competent person and issue a certificate of competency in the Form III or IV, as the case may be, or reject the application specifying the reasons thereof.

(6) For the purpose of satisfying himself as regards to competence of the applicant, the person shall be called to appear for a test and / or interview before the Chief Inspector-cum-Facilitator and based on result of test and / or interview, as the case may be, the applicant person or the institution may be recognized as competent person. The decision of the Chief Inspector-cum-Facilitator in this regard shall be final.

(7) The Chief Inspector-cum-Facilitator may, after giving an opportunity to the competent person of being heard, revoke the certificate of competency;

(i) if he has reason to believe that a competent person:-

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

(b) has unauthorizedly 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

(ii) for any other reason to be recorded in writing;

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

(9) A competent person who has been already recognized under the provisions of the repealed Factories Act, 1948 (Central Act no.63 of 1948) and the rules made there under on the date of commencement of these rules, shall be deemed to be the competent person under these rules for the purpose till the validity of certificate of competency granted earlier.

(10) The application for recognition as a competent person for further period shall be made at least thirty days before the expiry of the period of recognition and the procedure under sub-rule (4) shall apply mutatis mutandis for its recognition as a competent person for further period.

SCHEDULE

(see rule 3 (1) and (3))

Sr. No.	Purpose for which competency is sought	Qualification required	Experience for the purpose	Facilities at his command
(1)	(2)	(3)	(4)	(5)
1.	Issue of Certificate of Stability for building/shed/structure/work of engineering construction	Degree in Civil or Structural Engineering, or equivalent.	(i) A minimum of 10 years' experience in the design or construction or testing or repairs of structures; (ii) Knowledge of non-destructive testing, various codes of practices that are current and the effect of the vibrations and natural forces on the stability of the building; and (iii) Ability to arrive at a reliable conclusion with regard to the safety of the structure or the building.	Instruments and equipment's required for conducting non-destructive testing to determine the safety of the structure or the building.
2.	Testing, examination and certification of Dangerous Machines	Diploma in Industrial Safety from the Board of Technical Education of any Government or recognized University after obtaining Degree/ /Diploma in Electrical or Mechanical or Production or Metallurgical Engineering or equivalent	(i) A minimum of 10 years' experience in - a) the design or operation or maintenance; or b) the testing, examination and inspection of relevant machinery, their guards, safety devices and appliances. (ii) He shall - a) be conversant with the safety devices and their proper functioning; b) be able to identify defects and any other cause leading to the failure; and c) have ability to arrive at a reliable conclusion with regard to the proper functioning of the safety device and appliance and the machine guard.	Gauges for measurement, Instrument for measurement of speed and any other equipment or device as may be recommended by the Chief Inspector-cum-Facilitator to determine the safety in the use of the dangerous machines.

3. Testing, examination and certification of Lifts and Hoists	Diploma in Industrial Safety from the Board of Technical Education of any Government or recognized University after obtaining Degree / Diploma in Electrical or Mechanical or Production or Metallurgical Engineering or equivalent	(i) A minimum experience of 10 years in – a) design or erection or maintenance; or b) inspection and test procedures of lifts and hoists. (ii) He shall be – a) conversant with relevant codes of practices and test procedures that are current; b) conversant with other statutory requirements covering the safety of the Hoists and Lifts; c) able to identify the defects and arrive at a reliable conclusion with regard to the safety of the Hoists and Lifts.	Instruments such as Vernier Calliper, Level Gauges, Ultrasonic Thickness Gauge with normal and hot probe, Tensometer/Spring Balancer and any other equipment or device as may be recommended by the Chief Inspector-cum-Facilitator to determine the safe working condition of the Hoists and Lifts.
4. Testing, examination and certification of Lifting Machinery and Lifting Tackles.	Diploma in Industrial Safety from the Board of Technical Education of any Government or recognized University after obtaining Degree / Diploma in Mechanical or Electrical or Production or Metallurgical Engineering or its equivalent	(i) A minimum experience of 10 years in – a) design or erection or maintenance; or b) testing, examination and inspection of lifting machinery, chains, ropes and lifting tackles. (ii) He shall be – a) conversant with the relevant codes of practices and test procedures that are current; b) conversant with fracture mechanics and metallurgy of the material of construction; c) conversant with heat treatment/stress relieving techniques as applicable to stress bearing components and parts of lifting machinery and lifting tackles; d) capable of identifying defects and arriving at a reliable conclusion with regard to the safety of the lifting	Instruments such as Vernier Calliper, Level Gauges, Ultrasonic Thickness Gauge with normal and hot probe, Tensometer / Spring Balancer and any other equipment or device as may be recommended by the Chief Inspector-cum-Facilitator to determine the safe working condition of the Lifting Machinery and Lifting Tackles.

	machinery, chains, ropes and lifting tackles.				
5.	Testing, examination and certification of pressure vessel or plant	Diploma in Industrial Safety from the Board of Technical Education of any Government or recognized University after obtaining Degree / Diploma in Chemical or Electrical or Metallurgical or Mechanical or Production Engineering or its equivalent	(i) A minimum experience of 10 years in – a) design or erection or maintenance; or b) testing, examination and inspection of pressure vessel and plant. (ii) He shall be – a) conversant with the relevant codes of practices and test procedures relating to pressure vessels; b) conversant with statutory requirements concerning the safety of unfired pressure vessels and equipment operating under pressure; c) conversant with the non-destructive testing techniques as are applicable to pressure vessels; d) able to identify the defects and arrive at a reliable conclusion with regard to the safety of the pressure vessel and plant.	Instruments such as Vernier Calliper, Level Gauges, Ultrasonic Thickness Gauge with normal and hot probe, calibrated pressure gauges, hydraulic pump and any other equipment or device as may be recommended by the Chief Inspector-cum-Facilitator to determine the safety in the use of pressure vessel or plant.	
6.	(i) Certification of workplace/ equipment free from dangerous fumes/ vapour/gas, etc. (ii) Certification of workplace/ equipment concerning shipbuilding and ship repairs	Diploma in Industrial Safety from the Board of Technical Education of any Government or recognized University after obtaining Degree / Diploma in Chemical or Metallurgical or Mechanical or Production Engineering or Master's Degree in Chemistry.	(i) A minimum experience of 10 years in collection and analysis of environmental samples and calibration of monitoring equipment; (ii) He shall be – a) Be conversant with the hazardous properties of chemicals and their permissible limit. b) Be conversant with the current techniques of sampling and analysis of the environmental contaminants and c) Be able to arrive at a reliable conclusion	Meters, instruments and devices duly calibrated and certified and any other equipment or device as may be recommended by the Chief Inspector-cum-Facilitator for carrying out the tests and certification of safety in working in confined spaces.	

as regards the safety in respect of entering and carrying out hot work			
7. Testing, examination and certification of exhaust appliance or ventilation system	Diploma in Industrial Safety from the Board of Technical Education of any Government or recognized University after obtaining Degree / Diploma in Mechanical or Electrical Engineering or its equivalent.	(i) A minimum of 10 years in the design, fabrication, installation, testing of ventilation system and systems used for extraction and collection of dusts, fumes and vapours and other ancillary equipment, (ii) He shall be conversant with relevant codes of practice and tests, procedures that are current in respect of ventilation and extraction system for fumes, and shall be able to arrive at a reliable conclusion with regard to effectiveness of the system.	Instruments such as Stack Velocity Meter, Anemometer, Manometer, Pitot Tube and any other equipment or device as may be recommended by the Chief Inspector-cum-Facilitator to determine the efficiency and effectiveness of the system or the appliance.

Explanation: For the purposes of this Schedule—

- (i) “Work of engineering construction” means any building, tank, silo, scaffold, platform, chimney, bridge, supporting structural work, retaining wall or any other similar structure.
- (ii) “Pressure vessel” means a vessel that may be used for containing, storing, distributing, transferring, distilling, processing or otherwise handling any gas, vapour or liquid under pressure greater than the atmospheric pressure and includes any pipelines fitting or other equipment attached thereto or used in connection therewith.
- (iii) “Pressure Plant” means a system of piping that is connected to a pressure vessel and is used to contain a gas, vapour or liquid under pressure greater than the atmospheric pressure, and includes the pressure vessel;
- (iv) “Exhaust appliance or ventilation system” means a localized ventilation effected by mechanical means for the removal of dust, fumes, gas, vapour or other impurity 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 and shall not include merely an exhaust fan provided in a workroom for the purpose of removal of hot air or smoke.

REGISTRATION

4. *Registration as an establishment.*— (1) The occupier of factory as specified in sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, shall make an application in Form V to the Registering Officer, through the portal, giving details about the factory and uploading documents related to registration of the factory, proof of identity, address of the occupier, information on inter-state migrant workers as specified in the said form and accompanied by a fee specified in the below given schedule for registration of the factory as an establishment. The occupier shall be responsible for veracity of all the information submitted in the application.

SCHEDULE

Number of workers to be employed	Fee for Registration in Rs.
10-20	1000
21-50	2000
51-150	3000
151-250	4000
251-500	5000
501-1000	6000
1001-2500	7000
2501-4000	8000
4001 and above	9000

NOTE: - Fees payable under this rule shall be increased by five percent of such fees last payable, at the beginning of each calendar year with effect from 01/01/2028.

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

(3) Notwithstanding anything contained in sub- rule (1), a factory which is in existence at the time of the commencement of this Code and already registered under the Factories Act, 1948 (Central Act no.63 of 1948), shall make an application in Form V to the Registering Officer through the portal, without the payment of fees specified in the schedule under sub-rule (1), within ninety days from the date on which these rules come into force.

(4) The Registering Officer may direct the occupier who fails to comply with the requirements of sub-rule (1) or sub-rule (3), to comply with such requirements within the time stated in such direction and such occupier shall, upon there comply with the direction issued by said officer in this behalf.

5. *Grant of certificate of registration.*— (1) The Registering Officer, on receipt of the application under sub-rule (1) or sub-rule (3) of rule 4, shall register the factory as an establishment and issue a certificate of registration to the applicant electronically within seven days from the date of submission of complete application, in Form VI and shall be subject to such conditions as specified in certificate of registration.

(2) The Registering Officer shall maintain a register in Form VII, showing the particulars of establishment in relation to which certificate of registration has been issued by him.

6. *Payment of additional fees and amendment of certificate of registration.*— (1) If, in relation to an establishment registered under rule 5, any change occurs in the ownership or management or other particulars as specified in the certificate of registration, the occupier of such establishment, shall intimate to the Registering Officer, within a period of thirty days from the date on which such change takes place, the date and particulars of such change, and the reasons thereof in Form V through the portal and thereafter

the Registering Officer shall make amendment in the certificate of registration and issue the same to the occupier in Form VI electronically.

(2) Where on receipt of intimation under sub-rule (1), the Registering Officer is satisfied that an additional amount of fee is required due to change, he shall require such occupier to pay the additional sum.

(3) The Registering Officer shall also amend the register in Form VII and record therein the change which has occurred in the certificate of registration.

(4) Notwithstanding anything contained in sub- rule (2), the occupier shall pay an amendment fee of rupees five hundred for each amendment sought on certificate of registration.

7. *Late fee.*— If the application for the registration of a factory as specified in sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, as required under sub-rule (1) of rule 4 is made after the expiry of the period specified in sub-section (1) of section (3), the additional graded fees at the percentage of the fees payable for the registration of the establishment specified in column (2) of the schedule hereto shall be payable for such registration of the establishment for the period of delay specified in column (1) of the Schedule.

SCHEDULE

Period of delay	Percentage of fees
(1)	(2)
Upto one month	10 percent
Upto two months	20 percent
Upto three months	30 percent
Upto four months	40 percent
Upto five months	50 percent
Above five months	100 percent

8. *Appeal under section 4 of the Code.*— (1) An appeal under section 4 of the Code, arising out of a decision of the Registering Officer shall be filed with the Appellate Officer within a period of thirty days from the date on which the copy of the order against which the appeal is filed, is received by the appellant.

(2) An appeal may be admitted after the expiry of the period of thirty days if the appellant satisfies the Appellate Officer that he had sufficient cause for not preferring the appeal within that period.

(3) The appeal shall be accompanied by a copy of order of Registering Officer issued under section 3 and a clear statement of facts appealed against, the grounds for appeal and the relevant sections of the Code.

(4) The appeal shall be presented in triplicate by the appellant in person or by his duly authorized representative in writing or by an advocate duly appointed in this behalf or by registered post or speed post and shall be accompanied by fee of five hundred rupees paid in the form of Court Fee Stamp affixed on the Memorandum of appeal.

(5) The appeal sent by post shall be deemed to have been presented to the Appellate Officer on the day it is received.

(6) If on scrutiny, the appeal is found to be in order, it shall be duly registered and given a registration number.

(7) If on scrutiny, the appeal is found to be incomplete, the same shall, after notice to the party, be returned for compliance and if within fifteen days of receipt of such notice or within such extended time as may be

granted, the defect is not rectified, the Appellate Officer, may, for reasons to be recorded in writing, decline to register the appeal.

(8) A copy of the Appeal shall be served by the Appellate Officer to the Respondent as soon as it is registered, by hand delivery or by registered post or speed post.

(9) On admission of the appeal, the Appellate Officer may call for the records relating to the proceedings from the Registering Officer.

(10) The Respondent shall within seven days of service of notice of appeal, file reply on the appeal to the Appellate Officer.

(11) The Appellate Officer may, after giving the parties to the appeal an opportunity of being heard, pass such orders as he may think fit, confirming or setting aside the order appealed against.

(12) The order of the Appellate Officer shall be signed and dated. The Appellate Officer shall have powers to pass interim orders or injunction, subject to reasons to be recorded in writing, which he considers necessary in the interest of justice.

(13) A certified copy of every order passed by the Appellate Officer shall be communicated to the Registering Officer and to the parties, as the case may be.

(14) The order passed by the Appellate Officer under sub-rule (11) shall be final and binding.

9. *Notice of commencement and cessation.*— (1) The occupier shall, at least fifteen days before he begins to use the factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, to commence the manufacturing process, send to the Registering Officer a notice of commencement through Portal. Notice of commencement shall in Form VIII.

(2) Notwithstanding anything contained under sub- rule (1), in respect of a factory for which provisions stated under section 79 of the Code are applicable, notice of occupation submitted under rule 82 shall be considered as a fulfillment of requirement under sub-rule (1).

(3) The occupier shall at least seven days before the cessation of the manufacturing process, shall send to the Registering Officer a notice of cessation in following form through Portal along with a declaration stating that there is no presence of hazardous chemicals in the premises or the said hazardous substances have been shifted / disposed of in accordance with the relevant rules in force.

Form of Notice of Cessation

Name and address of the factory	Date of cessation	Reasons of cessation	Nature of cessation whether temporary or permanent	Number of employees on the muster roll of the factory at the time of cessation	Number of employees affected by the cessation
(1)	(2)	(3)	(4)	(5)	(6)

10. *Closure of the establishment.*— (1) The occupier shall, within thirty days of the closing of the factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, send to the Registering Officer a notice of closure of the establishment in following form through Portal along with a certificate regarding payment of all the dues to the workers employed in the said establishment commencement.

Form of Notice of Closure

Name and address of the factory	Date of closure	Reasons of closure	Number of employees on the muster roll of the factory at the time of closure	Number of employees affected by the closure
(1)	(2)	(3)	(4)	(5)

(2) Upon receipt of notice of closure under sub-rule (1), the Registering Officer shall send a notice of demand to the occupier for payment of the fees due to be paid, if any, till the date of closure and after the receipt of fees due to be paid, shall de-register the establishment and cancel the registration certificate under intimation the occupier electronically.

DUTIES OF EMPLOYER AND EMPLOYEES, ETC.

11. *Medical examination of employees.*— (1) Save as otherwise provided in these rules, the employees in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code shall be medically examined once before employment and thereafter -

(a) the employees who have completed forty-five years of age shall be medically examined every year; and

(b) the employees below the age of forty-five years shall be medically examined once every three years.

(2) Medical examination shall be conducted by the Medical Officer appointed under the Code or the Medical Inspector of Factories appointed by the Government or a facility set up by the Government including Goa Medical College and Hospital or recognized Factory Medical Officer or a recognized Occupational Health Laboratory:

Provided that fitness of an employee based on the medical examination so conducted initially or periodically shall be valid for the period as specified in clause (a) or (b) of sub-rule (1), as the case may be, even if the employee is employed in another factory during interim period provided that such employee is not engaged in dangerous operation or hazardous process in another factory.

(3) Tests / investigations to be conducted for the purpose of carrying out medical examination of a employee before employment and thereafter at specified intervals, shall consist of blood investigations for hemoglobin, total WBC count, differential count, blood grouping, fasting blood sugar level, serum creatinine, blood urea, electro cardio gram, urine (routine and microscopic), audiometry, X-ray chest, eye test including colour vision, pulmonary function test and any other test(s) which the Medical Officer or the Medical Inspector of Factories or the facility set up by the Government including Goa Medical College and Hospital or the Factory Medical Officer or the Occupational Health Laboratory may specify.

12. *Letter of appointment.*— (1) No employee shall be appointed in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code unless he has been issued a letter of appointment in Form IX.

(2) In case of a factory which is in existence as on the date of commencement of the Code and where an employee has not been issued such appointment letter on or before the commencement of this Code, he shall, within three months of such commencement, be issued such appointment letter in Form IX.

13. *Notice of certain accident and dangerous occurrences.*— (1) When any accident as specified in clause (1) of the Schedule hereto or any dangerous occurrence as specified in clause (2) of the said Schedule takes place in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, manager of the factory shall, within four hours of the happening of such accident or dangerous occurrence, send a notice thereof by telephone and special messenger or e-

mail to the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator and to the relatives of the injured or deceased person.

(2) The notice so given under sub-rule (1) shall be confirmed by the manager of the factory to the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator by sending to them a written report in the case of an accident or dangerous occurrence causing death or bodily injury in Form X and in case of a dangerous occurrence not causing bodily injury or death in Form XI, within twelve hours of the taking place of any such accident or dangerous occurrence.

(3) When any accident other than as specified in clause (1) of the Schedule hereto takes place in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and it causes such bodily injury to any person which prevents the person injured from working for a period of forty-eight hours or more immediately following the accident or the dangerous occurrence, as the case may be, the manager of the factory shall send a report thereof to the Inspector-cum-Facilitator in Form X within twenty-four hours after the expiry of forty-eight hours from the time of the accident or the dangerous occurrence:

Provided that, if the period of disability from working for forty-four hours or more referred to in sub-rule (3) does not occur immediately following the accident or the dangerous occurrence, but occurs later on in more than one spell, the report shall be sent to the Inspector-cum-Facilitator in Form X within twenty-four hours immediately following the hour when the actual total period of disability from working resulting from the accident or the dangerous occurrence becomes forty-eight hours:

Provided further that in case death occurs to any person injured by such accident or dangerous occurrence after the notices and the reports referred to in the foregoing sub-rules have been sent, the manager of the factory shall forthwith send a notice thereof by telephone and special messenger or e-mail within twelve hours and also have this information confirmed in writing within twenty-four hours of the death to the authorities and persons mentioned in sub-rule (1).

SCHEDULE

- (1) Accidents which cause death or serious bodily injury to a person;
- (2) The following are dangerous occurrences, whether or not they are resulting into personal injury or disablement:-
 - (a) Bursting of a plant, vessel or a pipeline used for containing petroleum, compressed air, steam under pressure greater than atmospheric pressure other than vessel or pipeline which comes within the scope of the Boilers Act, 2025 (Central Act 12 of 2025);
 - (b) Collapse or failure of a crane, derrick, winch, lift, hoist or other appliances used in raising or lowering persons or goods or any part thereof, or the overturning of the crane;
 - (c) Explosion, fire bursting out, leakage or release of toxic gas, leakage or escape of any molten metal or substance, hot liquid or gas causing damage to any part or portion of the factory in which persons are employed or damage to any plant, machinery or material;
 - (d) Explosion of a receiver or container used in any process or used for storage at a pressure greater than atmospheric pressure of any gas or any gases including air or any liquid or any solid;
 - (e) Collapse or subsidence of any “work of engineering construction”, as defined in the Explanation to rule 3, forming part of a factory or within the compound of such factory.

Explanation: For the purpose of this rule, ‘serious bodily injury’ means—

- (i) an injury which involves, or in all probability will involve, the permanent loss of the use of, or permanent injury to, any limb or the permanent loss of, or injury to, sight or hearing, or

the fracture of any bone, but shall not include, the fracture of bone or joint (not being fracture of more than one bone or joint) of any phalanges of the hand or foot; or

- (ii) Crushed or serious injury to any part of the body due to which loss of the same is obvious or any injury which is likely to cause death; or
- (iii) Severe burns or scalds due to chemicals, steam or any other cause.

14. *Notice of certain diseases.*— (1) A notice in Form XII shall be sent forthwith but not later than twelve hours to the Chief Inspector-cum-Facilitator, the Medical Officer appointed under the Code and the Administrative Medical Officer, Employee's State Insurance Scheme, Panaji, Goa by the manager of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code where an employee contracts any disease specified in the Third Schedule.

(2) If any qualified medical practitioner attends a person who is or has been employed in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, and who is, or is believed by the qualified medical practitioner to be suffering from any disease, specified in the Third Schedule, the qualified medical practitioner shall without delay send a report in writing to the Chief Inspector-cum-Facilitator stating –

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

15. *Duties of employee.*— If an employee comes to know of any unsafe or unhealthy condition in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, he shall report to the occupier or the manager, health and safety representative or safety officer, as soon as practicable, electronically or in writing or telephonically.

16. *Rights of Employee.*— On receipt of information from the employee relating to the existence of an imminent danger to their safety and health, the employer shall take immediate remedial action in this regard. The occupier or the manager, whether satisfied or not, shall send a report forthwith of such actions taken, to the Inspector-cum-facilitator electronically or by registered post or speed post along with the copy of the report submitted by the employee under clause (d) of section 13.

OCCUPATIONAL SAFETY AND HEALTH

17. *State Occupational Safety and Health Advisory Board.*— (1) State Occupational Safety and Health Advisory Board shall consist of –

(i)	Chief Secretary, Government of Goa	Chairperson ex- officio;
(ii)	Secretary, (Factories and Boilers), Government of Goa	Member ex- officio.
(iii)	Secretary, (Labour), Government of Goa	Member ex- officio.
(iv)	Commissioner, Labour and Employment, Government of Goa	Member ex- officio.
(v)	Chairman, Goa State Pollution Control Board	Member ex- officio.
(vi)	Director, Directorate of Health Services, Government of Goa	Member ex- officio.
(vii)	Two representatives of employers nominated by the Government	Members.

(viii)	Two representatives of employees nominated by the Government	Members.
(ix)	Two expert persons connected with the field of Occupational Safety and Health nominated by the Government	Members.
(x)	Chief Inspector of Factories and Boilers, Government of Goa	Member Secretary ex officio.

(2) The terms of office of the members referred to at serial no. (vii), (viii) and (ix) shall be of three years.

18. *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.

19. *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.

20. *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.

21. *Meeting of the Board and Quorum.*— (1) The Board may meet as often as necessary but not less than two meetings shall be held in a calendar year and the period between the two meetings shall not exceed more than six months.

(2) No business shall be transacted at any meeting of the Board, unless at least seven members are present.

22. *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.

23. *Fees and Allowances.*— Every non-official member of the Board shall be paid the allowance for attending a meeting of the Board at the rates as may be fixed by the Government from time to time.

24. *Resignation.*— A member of the Board, not being an ex-officio member, may resign his office by a letter in writing addressed to the Government and the Office of such a member shall fall vacant from the date on which his resignation is accepted by the Government, or the expiry of thirty days from the date of receipt of the letter of resignation by the Government whichever is earlier.

25. *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 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.

26. *Disqualification for Membership.*— (1) A person shall be disqualified for being reappointed and for being a member of the Board;

(i) if he is of unsound mind and stands so declared by a competent court; or

(ii) if he is an undischarged insolvent; or

(iii) if he has been or is convicted of an offence which, in the opinion of the Government, involves moral turpitude.

(2) If a question arises as to whether a disqualification has been incurred under sub-rule (1), the Government shall decide the same.

27. Removal from Membership.— The 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 on the Board:

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

28. Manner of filling vacancies.— When a vacancy occurs or is likely to occur in the membership of the Board, Member Secretary of the Board shall submit a report to the Government and on receipt of such report, the Government may, by notification, nominate a person to fill the vacancy in the manner specified 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.

29. Safety Committee.— (1) There shall be a safety committee in every factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code -

- (a) wherein 150 or more workers are ordinarily employed; or
- (b) which involves ‘hazardous process’ as defined in section 2(za) of the Code; or
- (c) which handles a hazardous substance as defined in section 2(zb) of the Code or which carries on any process or operation declared to be dangerous under section 82 of the Code and wherein fifty or more workers are ordinarily employed;

(2) The safety Committee shall consists of :-

- (a) an occupier or the manager of the factory who shall be the Chairman;
- (b) A Safety Officer and a Factory Medical Officer, wherever available and the Safety Officer in such a case shall be the Secretary of the Committee.
- (c) A representative each from the human resource, production / execution, maintenance and purchase departments.

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

(4) The Safety Committee shall consist of equal number of representatives of the management and the workers and the minimum number of representatives shall be six.

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

(6) Safety Committee shall meet as often as necessary but at least once in every two months. The minutes of the meeting shall be recorded and produced to the Inspector-cum-Facilitator on demand.

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

- (a) potential safety and health hazards to which the employees may be exposed at work place;
- (b) data on accidents as well as data resulting from surveillance of the working environment and of the health of employees exposed to hazardous substances so far as the factory is concerned, provided that the committee undertakes to use the data on a confidential basis and solely to provide guidance and advice on measures to improve the working environment and the health and safety of the employees.

(8) Functions and duties of the Safety Committee shall include:-

- (a) Assisting and co-operating with the management in achieving the aims and objectives outlined in the 'Health and Safety Policy' of the occupier.
 - (b) Dealing with all matters concerning health, safety and environment and to arrive at practicable solutions to problem encountered.
 - (c) Creating safety awareness amongst all employees.
 - (d) Undertaking educational training promotional activities.
 - (e) Discussion on reports of occupational safety and health surveys, safety audits, risk assessment, on site emergency plans 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 suggesting corrective measures; and
 - (h) Reviewing the implementation of the recommendation made by it.
- (9) Where, owing to the size of the factory or any other reasons, the functions specified in sub-rule (8) cannot be effectively carried out by the Safety Committee, it may establish sub-committees as may be required to assist it.
- (10) The provisions of sub-rules (3), (4), (5), (6), (7) and (8) shall apply to the sub-committees also whenever such committees are set up.

30. *Safety Officers.*— (1) Qualifications –

- (a) A person shall not be eligible for appointment as a Safety Officer unless he possesses-
 - (i) a recognized degree in any branch of engineering or technology and has had practical experience of working in a factory in a supervisory capacity in production/maintenance/safety/engineering projects for a period of not less than two years; or
a recognized degree in physics or chemistry and has had practical experience of working in a factory in a supervisory capacity in production / safety for a period of not less than five years; or
a recognized diploma in any branch of engineering or technology and has had practical experience of working in a factory in a supervisory capacity in production/maintenance/safety/engineering projects for a period of not less than five years; and
 - (ii) Possesses a degree or diploma in industrial safety awarded by the University or Board of Technical Education of any State Government or Union territory Administration; and
 - (iii) has adequate knowledge of the language spoken by majority of the employees in the factory where he is to be appointed.
 - (b) Save as otherwise expressly provided in this rule, no person shall be continued as a Safety Officer unless he possesses the requisite qualifications as specified in clause (a) of sub-rule (1) or obtains the said requisite qualifications within such period as the Chief Inspector-cum-Facilitator may specify in writing.
- (2) Conditions of service – (a) Where the number of Safety Officers to be appointed in a factory as required under these rules exceeds one, one of them shall be designated as the Chief Safety Officer and shall have a status higher than that of the others. The Chief Safety Officer shall be overall in charge of the safety functions as envisaged in sub-rule (3), the other Safety Officers shall be working under his control.

(b) The Chief Safety Officer or the Safety Officer in the case of factory where only one Safety Officer is required to be appointed shall be given the status of a senior executive and he shall work directly under the control of the occupier or the manager of the factory. All other Safety Officers shall be given appropriate status to enable them to discharge their functions effectively.

(c) In the case of dismissal or discharge, a Safety Officer shall have a right to appeal to the Chief Inspector-cum-Facilitator whose decision thereon shall be final.

(3) Duties of Safety Officers – (a) The duties of a Safety Officer shall be to advise and assist the factory management in the fulfillment of its obligations, statutory or otherwise, concerning prevention of personal injuries and maintaining a safe working environment. These duties shall include the following, namely-

- (i) to advise the concerned departments in planning and organizing measures necessary for the effective control of personal injuries;
- (ii) to advise on safety aspects in all job studies, and to carry out detailed job safety studies of selected jobs;
- (iii) to check and evaluate the effectiveness of the action taken or proposed to be taken to prevent personal injuries;
- (iv) to advise the purchasing and stores department in ensuring the availability of high quality personal protective equipment;
- (v) to provide advice on matters related to carrying out plant safety inspections;
- (vi) to carry out plant safety inspections in order to observe the physical conditions of work and the work practices and procedures followed by employees and to render advice on measures to be adopted for removing the unsafe physical conditions and preventing unsafe actions by employees;
- (vii) to render advice on matters related to reporting and investigation of industrial accidents and diseases;
- (viii) to investigate accidents;
- (ix) to investigate the cases of notifiable diseases contracted and dangerous occurrences reportable under the Code;
- (x) to advise on the maintenance of such records as are necessary relating to accidents, dangerous occurrences and industrial diseases;
- (xi) to promote setting up of safety committees and to act as adviser and catalyst to such committees;
- (xii) to organize in association with the concerned departments, campaigns, competitions, contests and other activities which will develop and maintain the interest of the employees in establishing and maintaining safe conditions of work and procedures; and
- (xiii) to design and conduct either independently or in collaboration with the training department, suitable training and educational programme for the prevention of personal injuries.

(4) Facilities to be provided to Safety Officers – An occupier or the manager shall provide each Safety Officer with such facilities, equipment and information as are necessary to enable him to discharge his duties effectively.

(5) Prohibition of performance of other duties – 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 (3).

31. *Recognition of Safety Officers.*— (1) Any person possessing qualification as specified in clause (a) of sub-rule (1) of rule 30, shall submit an application in Form XIII along with a treasury receipt showing

payment of five thousand rupees, which shall be non-refundable, to the Chief Inspector-cum-Facilitator, to recognize him as a Safety Officer, for the purposes of this Code and these rules made.

(2) The Chief Inspector-cum-Facilitator, shall register such application and within a period of thirty days of the date of receipt of application, either after having satisfied himself as regards qualification and experience of the applicant and shall recognize the applicant as a Safety Officer and issue a one time certificate of recognition in Form XIV or reject the application specifying the reasons thereof.

Provided that the Safety Officers who are already recognized under the repealed Goa Factories Rules, 1985, as amended from time to time, shall be deemed to be recognized under this rule.

32. *Appointment of Safety Officers.*— (1) In respect of a factory wherein five hundred or more workers are ordinarily employed, the occupier shall appoint such number of Safety Officers recognized by the Chief Inspector-cum-Facilitator, as specified in column (3) of the Schedule I herein below for the number of workers mentioned in corresponding entry in column (2) of the said Schedule I.

Schedule I

Sr. No.	Number of workers ordinarily employed	No. of Safety Officers
(1)	(2)	(3)
(1)	500 but not exceeding 1000	1
(2)	Above 1000 but not exceeding 1500	2
(3)	Above 1500 but not exceeding 2000	3
(4)	Above 2000 but not exceeding 2500	4
(5)	For every 1000 or part thereof exceeding 2500	1

(2) In respect of a factory which is involved in hazardous process and wherein two hundred fifty or more workers are ordinarily employed, the occupier shall appoint such number of Safety Officers recognized by the Chief Inspector-cum-Facilitator, as specified in column (3) of the Schedule II herein below for the number of workers mentioned in corresponding entry in column (2) of the said Schedule II.

Schedule II

Sr. No.	Number of workers ordinarily employed	No. of Safety Officers
(1)	(2)	(3)
(1)	250 but not exceeding 500	1
(2)	Above 500 but not exceeding 1000	2
(3)	Above 1000 but not exceeding 1500	3
(4)	Above 1500 but not exceeding 2000	4
(5)	Above 2000 but not exceeding 2500	5
(6)	For every 1000 or part thereof exceeding 2500	1

(3) In respect of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, which is categorized as “Major Accident Hazards (MAH) installation”, the occupier shall appoint such number of Safety Officers recognized by the Chief Inspector-cum-Facilitator, as specified in column (3) of the Schedule III herein below for the number of workers mentioned in corresponding entry in column (2) of the said Schedule III.

Schedule III

Sr. No.	Number of workers ordinarily employed	No. of Safety Officers
(1)	(2)	(3)
(1)	Upto 250	1
(2)	250 but not exceeding 500	2
(3)	Above 500 but not exceeding 1000	3
(4)	Above 1000 but not exceeding 1500	4
(5)	Above 1500 but not exceeding 2000	5
(6)	Above 2000 but not exceeding 2500	6
(7)	For every 1000 or part thereof exceeding 2500	1

WELFARE PROVISIONS

33. *Ambulance room.*— (1) Every ambulance room in a factory wherein more than five hundred workers are ordinarily employed, shall be under the charge of a Factory Medical Officer recognized by Chief Inspector-cum-Facilitator as per the scale prescribed by the Central Government under clause (i) of sub-section (2) of section 24 of the Code.

34. *Recognition of Welfare Officers.*— (1) Any person possessing qualification as prescribed by the Central Government under clause (iv) of sub-section (2) of section 24 of the Code, shall submit an application in Form XIII along with a treasury receipt showing payment of five thousand rupees, which shall be non-refundable, to the Chief Inspector-cum-Facilitator, to recognize him as a Welfare Officer, for the purposes of this Code and these rules.

(2) The Chief Inspector-cum-Facilitator, shall register such application and within a period of thirty days of the date of receipt of application, either after having satisfied himself as regards qualification of the applicant, shall recognize the applicant as a Welfare Officer and issue an one time certificate of recognition in Form XIV or reject the application specifying the reasons thereof.

Provided that the Welfare Officers who are already recognized under the repealed Goa Factories Rules, 1985, as amended from time to time, shall be deemed to be recognized under this rule.

35. *Appointment of Welfare Officers.*— In respect of a factory wherein two hundred and fifty or more workers are ordinarily employed, the occupier shall appoint such number of Welfare Officers recognized by the Chief Inspector-cum-Facilitator, as per the scale prescribed by the Central Government under clause (iv) of sub-section (2) of section 24 of the Code.

HOURS OF WORK AND ANNUAL LEAVE WITH WAGES

36. *Weekly holidays.*— (1) No worker shall be required or allowed to work in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code 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 occupier of the factory 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 factory.

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 factory 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.

37. *Compensatory holidays.*— (1) Where, as a result of the passing of an order exempting a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, or the workers therein from the provisions of rule 36, a worker is deprived of any of the weekly holidays for which provision is made sub-rule (1) of that rule, 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 deprived.

(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-rule (1) shall be so spaced that not more than two holidays are given in one week.

(3) The occupier of the factory shall display, on or before the end of the month in which holidays are lost, a notice in respect of workers allowed compensatory holidays during the following month and of the dates thereof, at the place at which the notice of periods of work specified under section 31 of the Code 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) (a) The employer shall maintain a Register in Form XV:

Provided that, if the Chief Inspector-cum-Facilitator is of the opinion that any muster roll or register maintained as part of the routine of the factory or return made by the occupier or manager, gives in respect of any or all of the workers in the factory the particulars required for the enforcement of sub-section (3) of section 26 of the Code, he may, by order in writing, direct that such muster roll or register or return shall, to the corresponding extent, be maintained in place of and be treated as the register or return required under this rule for that factory.

(b) The register maintained under clause (a) 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.

38. *Extra wages for overtime.*— (1) Where in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, a worker works for more than eight hours in a 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 the rate of wages and shall be paid at the end of each wage period.

(2) In calculating overtime in 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) Any work done by a worker beyond the normal specified period of work shall be entered in the overtime slips in duplicate indicating there in the actual period of overtime worked by him. A copy of such overtime slip duly signed by the manager or by a person duly authorized by him in that behalf, shall be given to the worker immediately after completion of the overtime work:

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

(5) The occupier shall maintain an Overtime Muster Roll in Form XVI. In this muster roll, it shall be correctly entered the extent of overtime worked by each worker together with the overtime earnings in respect thereof and the dates of the payment of such earning. The muster roll shall always be available and produced for inspection whenever required by an Inspector-cum-Facilitator.

(6) Subject to the provisions prescribed under rule 106, 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 hours or one hundred and forty-four hours, as the case may be.

39. *Double employment of workers.*— (1) The Inspector-cum-Facilitator may sanction the employment of workers in more than one factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code on the same day if he is satisfied that such adult worker is allowed to work not more than forty-eight hours in a week and is allowed weekly holidays as per section 26.

(2) A note under the initials of the Inspector-cum-Facilitator shall be made in the remarks column of a Register of such workers permitted to work in more than one factory.

40. *Notice of periods of work.*— (1) There shall be displayed and correctly maintained in every factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, a notice of periods of work sanctioned by Inspector-cum-Facilitator, showing clearly for every day the periods during which workers may be required to work in Form XVII.

(2) Where all the workers in a factory are required to work during the same periods, the manager of the factory shall fix those periods for such workers generally.

(3) Where all the workers in a factory are not required to work during the same periods, the manager of the factory shall classify them into groups according to the nature of their work indicating the number of workers in each group.

(4) For each group which is not required to work on a system of shifts, the manager of the factory shall fix the periods during which the group may be required to work.

(5) 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 manager of the factory shall fix the periods during which each relay of the group may be required to work.

(6) 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 manager of the factory 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.

(7) Any proposed change in the system of work in any factory which will necessitate a change in the notice specified under 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.

MAINTAINANCE OF REGISTERS, RECORDS AND RETURNS

41. *Register of adult workers.*— The register of adult workers shall be maintained in Form XVIII, electronically or otherwise.

42. *Register of adolescent workers.*— The register of adolescent workers shall be maintained in Form XIX, electronically or otherwise. This register shall be written up afresh each year and shall be preserved for a period of twelve months.

43. *Muster-roll.*— (1) A muster-roll of all the workers employed in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code shall be maintained in Form XX, electronically or otherwise, showing (a) the name of each worker, (b) the nature of his work, and (c) the daily attendance of the worker.

(2) The muster-roll shall be written up afresh each month and shall be preserved for a period of three years from the date of last entry in it:

Provided that if the daily attendance is noted in respect of adults and adolescent workers in the Registers of Workers in Form XVIII and XIX, respectively, or the particulars required under sub-rule (1) are noted in any other register, and such register are preserved for a period of three years from the date of last entry in them, a separate muster-roll required under sub-rule (1) need not be maintained.

44. *Attendance Card.*— (1) No worker shall be required or allowed to work unless he/she has in his/her possession attendance card with upto date entries, in Form XXI to be supplied by the occupier. The attendance card shall always remain with the worker. The occupier or his authorized person shall demand it only to make relevant entries therein, whenever necessary.

(2) If a worker loses his attendance card, the occupier shall provide him/her with another copy duly completed from his record on payment of twenty-five rupees within two days of the payment.

45. *Register of leave with wages.*— (1) The register of leave with wages shall be maintained in Form XXII, electronically or otherwise:

Provided that if the Chief Inspector-cum-Facilitator is of the opinion that any muster roll or register maintained as part of the routine of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, or return made by the occupier, gives, in respect of any or all of the workers in the factory, the particulars required for the enforcement of Chapter VII of the Code, he may, by order, in writing, direct that such muster roll or register or return shall to the corresponding extent, be maintained in place of and be treated as the register or return required under this rule in respect of that factory.

(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.

46. *Leave book.*— (1) The occupier shall provide each worker who has become entitled to leave during a calendar year, with a book in Form XXIII not later than the 31st January of the following calendar year. The leave book shall be the property of the worker and the occupier or his agent shall not demand it except to make relevant entries of the dates of holidays or interruptions in service, and shall not keep it for more than a week at a time:

Provided that in the case of a worker who is discharged or dismissed from service during the course of the year, that is, who is covered under clause (vi) of sub-section (1) of section 32 of the Code, the occupier or the manager shall issue an abstract from the register of leave with wages (Form XXII) within a week from the date of discharge or dismissal as the case may be.

(2) If a worker loses his leave book, the occupier or the manager shall provide him with another leave book on the payment of rupees twenty five only and shall enter his record thereon.

47. *Register of accidents and dangerous occurrences.*— (1) The manager of every factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, shall maintain a register of all accidents and dangerous occurrences which occur in the establishment in Form XXIV.

48. *Register of wages.*— (1) The occupier of every factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code shall maintain a register of wages in respect of workers as prescribed under the Rules framed by the Government under the Code on Wages, 2019 (Central Act no. 29 of 2019).

49. *Display of notices.*— (1) In addition to the notices required to be displayed in any a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, by or under these rules, there shall be displayed in every factory a notice containing abstracts of the Code and of the rules made thereunder and also the name and address of the Inspector-cum-Facilitator and the Medical Officer.

(2) All notices required by or under these rules to be displayed in a factory shall be in English and in a language understood by the majority of the employees in the factory and shall be displayed at some conspicuous and convenient place at or near the main entrance to the factory and shall be maintained in a clean and legible condition.

(3) The Chief Inspector-cum-Facilitator may, by order in writing served on the occupier of any factory, require that there shall be displayed in the factory any other notice or poster relating to the health, safety or welfare of the employees in the factory.

50. *Display of name and address of the factory.*— (1) A board containing the name and complete address of the factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code shall be displayed outside the factory near the main entrance.

(2) Two third of the upper area of the board to be displayed shall be in English and the rest of the area of the board shall be in a language understood by majority of the general public in the vicinity of the factory.

51. *Wage slips.*— (1) Every occupier shall issue wage slips, electronically or otherwise to the workers as prescribed under the rules framed by the Government under the Code on Wages, 2019 (Central Act 29 of 2019) on or before payment of wages.

52. *Returns.*— The manager of every a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code shall furnish to the Chief Inspector-cum-Facilitator returns in the form, electronically and within the due dates as specified below:-

- (a) Annual return for the calendar year in Form XXV, on or before 31st January of the succeeding year;
- (b) before the end of each year, a return giving before notice of all the days on which it is intended to close the factory during the next ensuing year. If in any year, a factory is newly started or re-started after its closure during the previous year, such return shall be submitted before the date of such starting or re-starting for the remaining period of the year:

Provided that the Government may dispense with this return in the case of any factory or class or description of factories in any particular area.

INSPECTOR-CUM-FACILITATORS AND OTHER AUTHORITY

53. *Qualifications and experience of Chief Inspector-cum-Facilitator.*— The Qualification and experience of Chief Inspector-cum-Facilitator shall be as per the recruitment rules as notified by the Government from time to time.

54. *Power to take samples.*— (1) An Inspector-cum-Facilitator may at any time during the normal working hours of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, after informing the occupier or the manager of the factory, take in the manner hereinafter provided a sufficient sample of any article or substance used or intended to be used in the factory or of the air of the atmosphere in or in the vicinity of any such factory or premises, such use of article or substance or presence of air being - (a) in the belief of the Inspector-cum-Facilitator is in contravention of any of the provisions of the Code or these rules or (b) in the opinion of the Inspector-cum-Facilitator likely to cause bodily injury to, or injury to the health of employees in the factory.

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

(3) The person informed shall, if the Inspector-cum-Facilitator so requires, provide the appliances for dividing, sealing and marking the sample taken.

(4) The Inspector-cum-Facilitator shall –

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

(b) forthwith send the second portion to a Government Analyst or a laboratory having accreditation of National Accreditation Board for Testing and Calibration Laboratories (NABL), for analysis and report thereon;

(c) retain the third portion for production to the Court before which proceedings, if any, are or to be instituted in respect of the article or substance or air sample.

(5) Any document purporting to be a report under the hand of any Government Analyst or laboratory upon any substance or article or air sample submitted to him for analysis and report under this rule, may be used as an evidence in any proceedings instituted in respect of the substance or article or air sample.

(6) The expenditure of the sampling and analysis, if any, shall be borne by the occupier of the factory.

55. *Power to give directions.*— Subject to the provisions of the Code, the Chief Inspector-cum-Facilitator or the Inspector-cum-Facilitator may, in exercise of the powers and performance of the functions under the Code, issue any directions in writing to the occupier or the manager of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, any officer or authority appointed by the Government and such occupier or the manager, such officer or authority shall be bound to comply with such directions.

Explanation – The power to issue directions under this rule shall include power to direct, -

(a) the closure or prohibition of any factory or any part thereof, operation or process, machinery or plant;
or

(b) the stoppage of supply of electricity, water or any other service or to reinstate it:

Provided that where the directions to be issued under this rule consists of any directions specified in the above explanation, the Chief Inspector-cum-Facilitator shall issue a show cause notice to the occupier or the manager calling upon him to show cause within a period of seven days as to why such directions should not be issued:

Provided further that no such notice shall be required to be given and the Chief Inspector-cum-Facilitator may issue such directions after recording the reasons in writing and after obtaining due approval of the Government, wherever the reasons for such directions are such that the activity or the manufacturing process so carried out causes pollution or degradation of the general environment and / or the working

conditions in a factory is in such a condition that it involves imminent danger to human life or safety and / or the premises is being used as a factory without obtaining valid certificate of registration and / or a valid factory license from the Chief Inspector-cum-Facilitator.

56. *Power to require specifications of defective parts or tests of stability.*— If it appears to the Inspector-cum-Facilitator that any building or part of a building or any part of the ways, machinery or plant in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code is in such a condition that it may be dangerous to human life or safety, he may serve on the occupier or manager or both of the factory an order in writing requiring him before a specified date –

(a) to furnish such drawings, specifications and other particulars as may be necessary to determine whether such building, ways, machinery or plant can be used with safety, or

(b) to carry out such test in such manner as may be specified in the order, and to inform the Inspector-cum-Facilitator of the results thereof.

57. *Safety of buildings and machinery.*— (1) If it appears to the Inspector-cum-Facilitator that any building or part of a building or any part of the ways, machinery or plant in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code is in such a condition that it is dangerous to human life or safety, he may serve on the occupier or manager or both of the factory an order in writing specifying the measures which in his opinion should be adopted, and requiring them to be carried out before a specified date.

(2) If it appears to the Inspector-cum-Facilitator that the use of any building or part of a building or any part of the ways, machinery or plant in a factory involves imminent danger to human life or safety, he may serve on the occupier or manager or both of the factory an order in writing prohibiting its use until it has been properly repaired or altered.

58. *Maintenance of buildings.*— If it appears to the Inspector-cum-Facilitator that any building or part of a building in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code is in such a state of disrepair as is likely to lead to conditions detrimental to the health and welfare of the employees, he may serve on the occupier or manager or both of the factory an order in writing specifying the measures which in his opinion should be taken and requiring the same to be carried out before such date as is specified in the order.

59. *Information required by the Inspector-cum-Facilitator.*— The occupier or manager of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code shall furnish any information and / or documents that an Inspector-cum-Facilitator may require for the purpose of satisfying himself whether any provision of the Code has been complied with or whether any order or an inspection has been duly carried out. Any demand by an Inspector-cum-Facilitator for any such information and / or documents if made during the course of inspection, shall be complied with forthwith, or if made in writing, shall be complied with within seven days or receipt thereof.

60. *Third party audit and certification.*— The occupier shall arrange to carry out an occupational safety and health audit and certification of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code by an Occupational Safety and Health Auditor recognized by Chief Inspector-cum-Facilitator, as follows: -

- (a) internally, at intervals not exceeding twelve months, by a team of suitable establishment personnel;
- (b) externally, at following intervals, namely: –
 - (i) once in two years for Category I factories;
 - (ii) once in three years for Category II factories; and

(iii) once in five years for Category III factories:

except the factories, which are having valid certificate for occupational health and safety management system issued by a certification body accredited to National Accreditation Board for Certification Bodies (NABCB) formed by the Quality Council of India under the administrative control of the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India provided that, the factory is not categorized as major accident hazards (MAH) installation or not involved or carrying out the “hazardous process” as defined under clause (za) of sub-section (1) section 2 of the Code:

Provided further that, in the year when external occupational safety and health audit is carried out, internal audit need not be carried out for that year.

For the purpose of this rule –

- (a) “Category I factories” means factories categorized as “major accident hazards (MAH) installations”;
- (b) “Category II factories” means, -
 - (i) factories wherein the “hazardous process” defined under clause (za) of sub-section (1) section 2 of the Code is involved or carried out; or
 - (ii) factories involving isolated storage and industrial activity at a site handling (including transport through carrier or pipeline) of hazardous chemicals less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 but greater than 100 litres or kg at a time;
- (c) “Category III factories” means factories other than Category I factories and Category II factories and licensed to employ more than 50 workers on any day;

61. *Empanelment of Occupational Safety and Health Auditor.*— (1) The Chief Inspector-cum-Facilitator may recognize an institution having persons possessing qualifications, experience and fulfilling other requirements as specified in the Schedule hereto as an Occupational Safety and Health Auditor, for a period of two years from the date of such recognition.

(2) The institution desirous of being recognized as an Occupational Safety and Health Auditor, shall submit to the Chief Inspector-cum-Facilitator an application in Form XXVI accompanied by the documents in support of possessing qualifications, experience and fulfilling other requirements and a treasury receipt of forty thousand rupees towards fees which shall be non-refundable.

(3) The Chief Inspector-cum-Facilitator, upon receipt of an application, shall register such application and within a period of thirty days from the date of receipt of application, either after having satisfied himself as regards competence of the applicant, recognize the applicant institution as an Occupational Safety and Health Auditor and issue a certificate of recognition in the Form XXVII or reject the application specifying the reasons therefor.

(4) For the purpose of satisfying himself as regards to competence of the applicant, the person shall be called to appear for a test before the Chief Inspector-cum-Facilitator and based on result of test, the applicant institution shall be recognized as an Occupational Safety and Health Auditor. The decision of the Chief Inspector-cum-Facilitator in this regard shall be final.

(5) The Chief Inspector-cum-Facilitator may, after giving an opportunity to an Occupational Safety and Health Auditor of being heard, revoke the certificate of recognition so granted -

- (i) if he has reason to believe that the Occupational Safety and Health Auditor has violated any condition stipulated in the certificate of recognition; or
- (ii) for any other reason to be recorded in writing.

(6) Department shall publish the updated list of recognized Occupational Safety and Health Auditors on the official website along with their validity period and contact details.

SCHEDULE

(A) Qualifications, experience and other requirements.—

- (a) (i) Degree in Mechanical / Electrical / Metallurgical / Chemical / Production / Industrial Engineering or Technology from a recognized University / Institute with ten year's experience either in production / maintainance / execution of project / safety management of any manufacturing industry in a supervisory or higher capacity or in conducting test, examinations, inspections and certification of pressure plant, lifting machines and lifting tackles and lifts and hoists, etc;

OR

- (ii) Diploma in Mechanical / Electrical / Metallurgical / Chemical / Production / Industrial Engineering or Technology from a recognized Board with fifteen years experience either in production / maintainance / execution of project / safety management of any manufacturing industry in a supervisory or higher capacity or in conducting test, examinations, inspections and certification of pressure plant, lifting machines and lifting tackles and lifts and hoists, etc;

OR

- (iii) Degree or Diploma in Engineering or Technology from a recognized University / Board with ten years' experience in a Department of the Central or State Government and dealing with the implementation of the repealed the Factories Act, 1948 (Central Act no.63 of 1948) or the Occupational Safety, Health and Working Conditions Code, 2020 (Central Act No. 37 of 2020), as amended from time to time.

and

- (b) Degree or Diploma in Industrial Safety awarded by University or Board of Technical Education of any State Government or Union Territory Administration in this behalf;

and

- (c) a Certificate of training in "Safety and Health Audit" awarded by the Directorate General Factory Advise Services and Labour Institutes, Ministry of Labour and Employment, Government of India or a valid certificate of Lead Auditor for occupational health and safety management system issued by a certification body accredited to National Accreditation Board for Certification Bodies (NABCB):

Provided that the Chief Inspector-cum-Facilitator may relax the requirements of a certificate of training in safety and health audit or a valid certificate of Lead Auditor for occupational health and safety management system, if the person under the institution is already functioning as an Occupational Safety and Health Auditor and is above forty-five years of age.

(B) The person under the institution to be recognized as an Occupational Safety and Health Auditor shall be certified to be physically fit by a qualified medical practitioner for the purpose of carrying out the audit and certification. Tests to be conducted for the purpose of ascertaining the fitness shall consist of physical examination, eye test and any other test(s) which the qualified medical practitioner may specify.

(7) The application for renewal of recognition as an Occupational Safety and Health Auditor for further period shall be made at least thirty days before the expiry of the period of recognition and the procedure under sub-rule (2) shall apply mutatis mutandis for its recognition as an Occupational Safety and Health Auditor for further period.

(8) An Occupational Safety and Health Auditor who has been already recognized under the provisions of the repealed Factories Act, 1948 (Central Act no.63 of 1948) and the rules made there under on the date of commencement of these rules, shall be deemed to be the Occupational Safety and Health Auditor under these rules for the purpose till the validity of certificate of recognition granted earlier.

62. *Methodology for conducting Occupational Safety and Health Audit.*— An Occupational Safety and Health Auditor shall carry out the audit as per IS 14489:2018, the Indian Standard Code of Practice on Occupational Safety and Health Audit, as amended from time to time.

63. *Submission of Reports.*— The occupier shall within a period of thirty days from the date of completion of an occupational safety and health audit, submit an audit report to the Chief Inspector-cum-Facilitator, including compliance or action taken report on any recommendations concerning the improvement of occupational safety and health conditions in that factory, as made by the Occupational Safety and Health Auditor.

64. *Hazard identification and risk analysis and consequence analysis.*— (1). The occupier of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and which is categorized as major accident hazards (MAH) installation, shall carryout hazard identification and risk analysis and consequence analysis for the industrial activity and / or storage of hazardous substance by any of the appropriate and suitable methodologies as per IS 15656:2006 i.e. Indian Standard on Hazard Identification and Risk Analysis - Code of Practice published by Bureau of Indian Standards, through an Occupational Safety and Health Auditor recognized by Chief Inspector-cum-Facilitator and shall submit the risk analysis report to the Chief Inspector-cum-Facilitator in Annexure B annexed to the said Code of Practice before the commencement of the industrial activity at a site and / or use of site as an isolated storage.

(2) In case of any modification, either partial or total to the existing factory which is categorized as major accident hazard (MAH) installation, by introducing a new product / process in an industrial activity and / or increasing capacity of hazardous substance or increasing the number of hazardous substances, as the case may be, the occupier shall carry out fresh hazard identification and risk analysis and consequence analysis as specified under sub-rule (1) at least ninety days before making any modification and the same shall be in addition to the conducting of occupational safety and health audit.

65. *The manner of providing alternative employment.*— (1) Every occupier shall provide an alternative employment to any person, whose employment has been affected by an order issued under sub-clause (a) of clause (A) of sub-section (1) of section 38 of the Code, in other parts of the factory if possible, without any deduction in the wages and other benefits the person is entitled to:

Provided that if the order issued under sub-clause (a) of clause (A) of sub-section (1) of section 38 of the Code pertains to prohibition of employment to any person in the entire factory, such person shall be entitled to wages and other benefits without any deduction till the time the order issued under sub-clause (a) of clause (A) of sub-section (1) of section 38 of the Code continue to remain in force.

66. *Medical Officer.*— (1) The Medical Officer required to be appointed under sub-section (1) of section 42 of the Code shall have qualification as specified in Schedules to the Indian Medical Council Act, 1956 (Act 102 of 1956) and possesses Diploma in Occupational and Industrial Health awarded by any recognized University or three months' certificate course in Associate Fellow of Industrial Health offered either by the Directorate General of Factory Advice Services and Labour Institute (DGFASLI), Mumbai or an institute approved by the Central Government / any State Government / Union Territory Administration, in accordance with the guidelines issued by DGFASLI.

(2) No person shall be appointed to be, or authorized to exercise the powers of a Medical Officer, or having been so appointed or authorized, continue to exercise such powers, who is or becomes the occupier of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified

under section 81 of the Code or is or becomes directly or indirectly interested therein or in any process or business carried on therein or in any patent or machinery connected therewith or is otherwise in the employment of the factory.

67. *Duties of Medical Officer.*— (1) Save as otherwise expressly provided in the Code and these rules, the Medical Officer shall perform following duties, namely. -

- (i) Examination and certification of the workers engaged in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code wherein the manufacturing process or operations declared to be dangerous under section 82 of the Code and / or wherein the hazardous process as defined under clause (za) of section 2 of the Code is involved or carried out or otherwise;
 - (ii) For the purpose of the examination of the workers engaged in the dangerous manufacturing process or operations or hazardous process or otherwise, the Medical Officer shall visit the factory within the local limits assigned to him at such intervals as are prescribed by the rules relating to such manufacturing process or operations or hazardous process.
 - (iii) At such visits the Medical Officer shall examine the persons and if the persons so examined are engaged in the dangerous manufacturing process or operations or hazardous process, he shall record the results of his examination in a register known as the Health Register in Form XXVIII which shall be kept by the occupier and produced to the Medical Officer at each visit.
 - (iv) Verification of reports of medical examination and certification of the workers engaged in any factory, carried out by an agency as permissible under these rules other than him and advise;
 - (v) If the Medical Officer finds as a result of his examination that any person employed in such process is no longer fit for medical reasons to work in that process, he shall suspend such person from working in that process for such time as he may think fit and no person after suspension shall be employed in that process without the written sanction of the Medical Officer in the Health Register.
- (2) The occupier of the factory shall afford to the Medical Officer facilities to inspect any process in which any person employed or is likely to be employed.
- (3) The occupier of the factory shall provide for the purpose of any medical examination which the Medical Officer wishes to conduct at the factory (for his exclusive use on the occasion of an examination) a room which shall be properly cleaned and adequately ventilated and lighted and furnished with a screen, a table (with writing materials) and chairs.
- (4) Examination and certification of adolescent for the purpose of ascertaining his fitness for employment, shall be as per the procedure laid under –
- (a) The Medical Officer shall, on the application of any adolescent or his parent or guardian accompanied by a document signed by the occupier of the factory that such person will be employed therein if certified to be fit for work in a factory, or on the application of the occupier of the factory in which any adolescent wishes to work, examine such person and ascertain his fitness for work in a factory.
 - (b) For the purposes of the examination and certification of adolescent who wishes to obtain certificates of fitness, the Medical Officer shall arrange a suitable time and place for the attendance of such persons, and shall give previous notice in writing of such arrangements to the occupiers of factories situated within the local limits assigned to him.
 - (c) The Medical Officer, after examination, may grant to such adolescent person, in Form XXIX, or may renew, a certificate of fitness to work in a factory as an adolescent, if he is satisfied that the

person has completed his fourteenth year, that he has attained the prescribed physical standards and that he 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 until he has examined such place.

- (d) The foil and counterfoil shall be filled in and the signature or the left thumb impression of the person in whose name the certificate is granted shall be taken on them. On being satisfied as to the correctness of the entries made therein and of the fitness of the person examined, he shall sign the foil and initial the counterfoil and shall deliver the foil to the person in whose name the certificate is granted. The foil so delivered shall be the certificate of fitness. All counterfoils shall be kept by the Medical Officer for a period of at least two years after the issue of the certificate.
- (e) If a certificate of fitness issued to an adolescent is lost, on receipt of an application for the grant of a duplicate, the Medical Officer, after making such enquiries as he deems fit, may grant a duplicate thereof. Such application shall be forwarded through the occupier of the factory where the adolescent is employed.
- (f) (a) A fee of rupees five hundred shall be payable for the issue of every certificate of fitness issued and shall be paid by the occupier;
(b) A fee of rupees two hundred and fifty shall be payable for the issue of every duplicate of a certificate issued and shall be paid by the occupier.
- (g) A certificate of fitness granted or renewed shall be valid only for a period of twelve months from the date thereof and may be made subject to conditions in regard to the nature of the work in which the adolescent may be employed, or requiring re-examination of the adolescent before the expiry of the period of twelve months.
- (h) A Medical Officer shall revoke any certificate granted or renewed if, in his opinion the holder of it is no longer fit to work in the capacity stated therein in a factory.
- (i) Where a Medical Officer refuses to grant or renew a certificate or a certificate of the kind requested or revokes a certificate, he shall, if so requested by any person who could have applied for the certificate or the renewal thereof, state his reasons in writing for so doing.
- (j) Where a certificate with reference to any adolescent is granted or renewed subject to such conditions as are specified in clause (c) above, the adolescent shall not be required or allowed to work in any factory in accordance with those conditions.
- (k) Any fee payable for a certificate shall be paid by the occupier and shall not be recoverable from the adolescent, his parents or guardian.
- (vi) The Medical Officer shall, upon instructions issued by the Chief Inspector-cum-Facilitator, carry out such examination and furnish him with such report as he may indicate, for any factory or class or description of factories where—
 - (a) cases of illness have occurred which it is reasonable to believe are due to the nature of the manufacturing process carried out on or other conditions of work prevailing therein; or
 - (b) by reasons of any change in the manufacturing process carried on, or in the substances used therein, or by reasons of the adoption of any new manufacturing process or of any new substance for use in a manufacturing process, there is a likelihood of injury to the health of employees employed in that manufacturing process; or

- (c) adolescents are, or are about to be, employed in any work which is likely to cause injury to their health.

SPECIAL PROVISION RELATING TO EMPLOYMENT OF WOMEN

68. *Employment of women.*— Women may be employed in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code before 6:00 AM and beyond 7:00 PM subject to the following conditions –

- (i) employment between the hours of 7:00 P.M. and 6:00 A.M. shall be with the consent in writing of concerned women;
- (ii) adequate, secure and safe transportation facilities shall be provided to women to pick-up and drop such women at her residence;
- (iii) CCTV cameras shall be provided and maintained in the work areas where women will be employed;
- (iv) safe, secure and healthy working conditions shall be provided such that no women is disadvantaged in connection with her employment.

69. *The manner of requiring the occupier to provide adequate safeguards.*— The Government, may, from time to time, by written order, specify the manner in which the occupier is required to provide adequate safeguards prior to the employment of women in dangerous operation, wherever relevant provisions under these rules pertaining to such operation prohibit employment of women.

SPECIAL PROVISIONS

FACTORIES

70. *Approval of plans.*— (1) No site shall be used for the location of a factory or no building in a factory shall be constructed, re-constructed, extended or taken into use as a factory or part of a factory or any other extension or addition of plant or machinery shall be carried out in a factory unless, a previous permission in writing is obtained from the Chief Inspector-cum-Facilitator.

(2) An application for such permission shall be made in Form XXX in electronic mode which shall be accompanied by following documents, other particulars as specified under said Form XXX and payment of five thousand rupees towards the fees for the same along with each such fresh application:-

- (a) Plans in duplicate shall be drawn to scale showing:-
 - (i) the site of the factory and immediate surroundings including adjacent buildings and other structures, roads, drains, etc.
 - (ii) the plan, elevation and necessary cross-sections of the various buildings, indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire. The plans shall also clearly indicate the position of the plant and machinery, aisles and passage ways; and
- (b) Where any flammable or non-flammable or toxic or non-toxic compressed gas or petroleum product or any other inflammable substance is intended to be possessed in a cylinder or a vessel or a tank in any factory, application for permission shall also be accompanied by an approval / license, if applicable, as required under the Gas Cylinders Rules, 2016 or the Static and Mobile Pressure Vessels (Unfired) Rules, 2016 or the Petroleum Rules, 2002 or the Inflammable Substances Act, 1952 (Act No.20 of 1952), as the case may be, as amended from time to time, from the authority concerned.

(3) If the Chief Inspector-cum-Facilitator is satisfied that the plans are in consonance with the requirements of the Code, he shall, subject to such conditions as he may specify, approve them by signing and returning

to the applicant one copy of each plan or he may call for such other particulars as he may require to enable such approval to be given:

Provided that no place shall be disapproved unless the applicant is given an opportunity to be heard and the Chief Inspector-cum-Facilitator has recorded its reasons in that behalf:

Provided further that in respect of factories which are in existence on the date of commencement of these rules, the approval of plans obtained by such factories under the provisions of repealed Factories Act, 1948 (Central Act no.63 of 1948) shall be deemed to be obtained under these rules.

71. *Use of premises as factory.*— No occupier shall use any premises as a factory unless:

- (i) The plans are approved from the Chief Inspector-cum-Facilitator in respect of the following items, namely:-
 - (a) site on which the factory is to be situated;
 - (b) building and extension used for the purposes of manufacturing process;
 - (c) the layout of plant and machinery;
 - (d) any changes, total or partial, in the manufacturing process (es).
- (ii) the factory building, extensions, processes and machinery layout are in conformity with the approved plans;
- (iii) the conditions subject to which plans are approved, are complied with;
- (iv) a license is obtained under rule 75 from the Chief Inspector-cum-Facilitator or renewed under rule 77, and the said license is valid at the relevant time.

Explanation: For the purpose of this clause, a license shall be deemed to be valid only if-

- (a) the fees, including additional fees, if necessary are paid;
- (b) the employment of workers for which license is granted is not exceeded.
- (c) the limit of the installed power for which license is granted is not exceeded.
- (d) existing building/shed/structure/work of engineering construction is in accordance with the plans approved by the Chief Inspector-cum-Facilitator.

72. *Certificate of stability.*— No manufacturing process shall be carried on in any building of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code which is constructed, reconstructed or extended, or in any building which has been taken into use as factory or part of a factory until a certificate of stability, signed by a competent person, in respect of that building in the form annexed to rule 73 has been sent by the occupier or manager of the factory to the Chief Inspector-cum-Facilitator, and accepted by him:

Provided that no manufacturing process shall be carried out in any premises as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code unless a fresh Certificate of Stability as specified in the form, is obtained from a competent person and submitted to the Chief Inspector-cum-Facilitator, once in a period of five years or after any extension or alteration, repair or addition of any work of engineering construction or wherein there is any addition or modification of machinery, plant, lifting tools or lifting machines:

Provided further that in case the person issuing the Certificate of Stability is a Structural Engineer registered under the provisions of the Goa Land Development and Building Construction Regulations, 2010, as amended from time to time, and who has originally designed the building / shed / structure / work of engineering construction, the Certificate of Stability issued by such person shall be considered in respect

of such building / shed / structure / work of engineering construction initially and thereafter once in a period of five years or after any re-construction, extension, alteration, etc. or wherein there is any addition or modification of machinery, plant, lifting tools or lifting machines.

73. *Form of certificate of stability.*— Certificate of stability to be issued for each building / shed /structure / work of engineering construction in the premises of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code shall be as per the form given below:

Form of Certificate of Stability

- | | |
|--|-----|
| (1) Name of the factory | ... |
| (2) Village, town and district in which
the factory is situated | ... |
| (3) Full postal address of the factory | ... |
| (4) Name of the occupier of the factory | ... |
| (5) Nature of manufacturing process
to be carried on in the factory | ... |
| (6) Name of the building / shed /structure / work
of engineering construction and number
of floors on which workers will be employed | ... |
| (7) Nature and amount of moving power
H.P. on each floor | ... |

I certify that I have personally inspected the building / shed /structure / work of engineering construction, the plans of which have been approved by the Chief Inspector-cum-Facilitator vide letter No..... dated 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 / shed /structure / work of engineering construction, which has been constructed/reconstructed/extended/taken into use is structurally sound and that it's stability will not be endangered by its use as a factory / part of the factory for the manufacture of..... for which the machinery, plant, etc. is / are installed. I hereby undertake to take responsibility and liability for any action in accordance with the law in force in the event of any structural failure endangering human life or safety.

Signature of the Competent Person

Signature of the occupier

Date...

Name of Engineer (in block letters)	....
Qualification	....
Address	....
Date	....

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

Certificate Ref. No

NOTE: - A separate stability certificate shall be issued for each building / shed /structure / work of engineering construction in the premises.

NOTE: - For the purpose of rule 72 and rule 73, the “competent person” means a Structural Engineer registered under the provisions of the Goa Land Development and Building Construction Regulations, 2010, as amended from time to time, and who has originally designed the building / shed /structure / work of engineering construction or a person or an institution recognized under rule 3 of these Rules and in the case of a building / shed /structure / work of engineering construction occupied or erected by the Government, an officer not below the rank of an Executive Engineer.

Explanation: - “Work of engineering construction” means any building, tank, silo, scaffold, platform, chimney, bridge, supporting structural work, retaining wall or any other similar structure.

74. *Application for grant of license.*— (1) The occupier and manager of every factory coming within the scope of the Code, after its commencement, shall apply to the Chief Inspector-cum-Facilitator for grant of license in Form XXXI in electronic mode:

Provided that in respect of factories which are in existence on the date of commencement of these Rules, the license granted or renewed under the provisions of the repealed Factories Act, 1948 (Central Act no.63 of 1948) in respect of such factories shall be deemed to be obtained or renewed under these rules and shall remain in force till its validity period.

(2) The occupier and the manager of a place to which the provisions of the Code are made applicable by a notification under section 81 of the Code, shall submit an application within thirty days of the date of such notification.

(3) Every such application shall be accompanied by a payment of the fees specified for the purpose in the Schedule below: -

SCHEDULE

Scale of fees payable for licence and annual renewal of licence by factories

Quantity of H. P. Installed (Maximum H.P.)	MAXIMUM NUMBER OF EMPLOYEES TO BE EMPLOYED ON ANY DAY DURING THE YEAR									
	Upto 9	From 10 to 20	From 21 to 50	From 51 to 150	From 151 to 250	From 251 to 500	From 501 to 1000	From 1001 to 2500	From 2501 to 4000	4001 and Above
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Nil	0	464	811	3473	4851	9702	19404	38808	58212	76403
Upto 10	695	1274	3126	6946	9702	14553	29106	58212	76403	94595
Above 10 but not above 50	926	3473	4631	9261	14553	19404	38808	71552	87318	104297
Above 50 but not above 100	3473	4631	6946	13892	19404	29106	48510	84893	94595	113999
Above 100 but not above 500	6946	8104	11576	27783	38808	48510	71552	94595	113999	132190

Above 500 but not above 1000	12128	13340	24255	38808	53361	63063	94595	113999	132190	151594
Above 1000 but not above 2000	16979	23042	31532	53361	63063	76403	104297	132190	151594	177062
Above 2000 but not above 5000	23042	31532	53361	63063	76403	104297	132190	151594	177062	192827
Above 5000 but not above 10000	33957	44872	78829	93382	113999	156445	208593	240125	257103	288635
Above 10000	49723	67914	117637	138254	177062	240125	304400	352910	384442	432952

NOTE:- (1) Fees payable under this rule shall be increased by five percent of such fees last payable, at the beginning of each calendar year with effect from 01/01/2028.

Provided that—

- (i) fees to be charged for the following classes of factories shall be half of those specified above, if they do not work for more than 180 days in the aggregate in a calendar year:-
 - (a) Gur Factories,
 - (b) Cashew nut Factories,
 - (c) Rice Mills
 - (ii) in the case of other factories working for a part of the year and commencing work on or after 1st day of July, the fees to be charged for the first time shall be half of those specified in the Schedule aforesaid.
- (4) In case of a factory coming within the scope of the Code, where the application for registration and grant of license is made after the commencement of the manufacturing process, the occupier and manager, from the date of commencement of the manufacturing process till the date of submission of application for registration and grant of license, shall be liable to pay additional fee at the rate of two hundred percent of the fees payable per year, as specified in sub-rule (3).

75. *Grant of licence.*— (1) The Chief Inspector-cum-Facilitator may, on application in electronic mode being made to him under sub-rule (1) or sub-rule (2) of rule 74 and on payment of the fees specified under sub-rule (3) of rule 74, and on being satisfied that there is no objection to the grant of licence applied for, grant the licence in Form XXXII to the applicant to use as factory such premises as are specified in the application and subject to compliance with such conditions as are specified in the licence:

Provided that subject to the provisions of sub-section (3) of section 79, the Chief Inspector-cum-Facilitator may refuse to grant the licence if he is satisfied—

- (i) that the approval of plans has not been obtained from the Chief Inspector-cum-Facilitator as required under rule 70;
- (ii) that the factory has not been constructed in accordance with the plans approved by the Chief Inspector-cum-Facilitator or in compliance with the conditions subject to which the plans are approved;

- (iii) that material requirements of the relevant provisions specified in the Schedules to rule 85 in relation to the factory concerned have not been complied with; or
- (iv) that there is imminent danger to human life or safety in the factory due to explosive or inflammable dust, gas or fumes, and effective measures in his opinion have not been taken to remove the danger.

(2) Subject to the provisions hereinafter contained with respect to suspension and unless earlier renewed under rule 77, every such licence shall remain in force until the 31st day of December of the year for which the licence is granted, or renewed under rule 77.

(3) The Chief Inspector-cum-Facilitator shall within a period of twenty-one days from the date of receipt of application, grant the license or refuse to grant the licence thereof specifying the reasons therefor failing which the factory in respect of which the licence is to be granted shall be deemed to be granted.

76. *Amendment of licence.*— (1) A licence under rule 75 may be amended by the Chief Inspector-cum-Facilitator.

(2) A licensee shall be required to have his licence amended if there is change in the name of the factory or change in the organization status or by virtue of addition or deletion to the premises in which the factory is situated or change in the manufacturing process, or addition of new process or deletion of process, or if the factory, for which the licence is granted, exceeds the limits specified in the licence in regard to horse-power or the number of workers employed.

(3) The licensee whose licence is required to be amended under sub-rule (2), shall submit to the Chief Inspector-cum-Facilitator an application in electronic mode in Form XXXI stating the nature of the amendment along with applicable documents as per annexures to Form XXXI. Where application for the amendment of licence is duly made in accordance with these rules, the Chief Inspector-cum-Facilitator shall within a period of twenty-one days from the date of receipt of application, amend the license and issue the same in Form XXXII subject to such conditions as he may specify or refuse the amendment thereof specifying the reasons therefor failing which the factory in respect of which the licence is to be amended shall be deemed to be duly amended:

Provided that no amendment of the licence shall be necessary in respect of changes in the number of workers or horse-power or both unless such changes involve higher licence or renewal fee.

Explanation:-

For the purpose of this rule, change in the manufacturing process, or addition of new process or deletion of process shall not include change which does not result in change in the category of the finished products being manufactured. However, any such change, which results in change or addition or deletion of raw materials being used, the same shall be intimated, alongwith the complete details of the raw materials added or deleted, to the Chief Inspector-cum-Facilitator at least fifteen days before such change.

(4) Where a licence is required to be amended under sub-rule (2) is for –

- (a) change in the name of the factory or change in the organization status, the fee to be paid for such amendment shall be one thousand rupees;
- (b) change in the name of the factory due to acquisition or merger taking place, the application for amendment of license and notice of occupation shall be given by the new occupier in whose name the license is to be transferred and the fee to be paid for such amendment shall be five thousand rupees;
- (c) addition or deletion to the premises in which the factory is situated, the fee to be paid for such amendment shall be one thousand rupees;
- (d) change in the manufacturing process, or addition of new process or deletion of process, the fee to be paid for such amendment shall be one thousand rupees; and

(e) exceeding the limits specified in the licence in regard to horse-power or the number of workers employed, the fee to be paid for such amendment shall be equal the difference between the licence or renewal fees due on the basis of the higher number of workers and horse power and the fees for the grant of licence or renewal thereof already paid for the year or part thereof.

77. *Renewal of licence.*— (1) An application for the renewal of licence for a period not exceeding ten years shall be made to the Chief Inspector-cum-Facilitator in electronic mode in Form XXXIII accompanied with payment of the fees specified in the Schedule attached to rule 74 so as to reach him not later than two months before the date on which the license is due to expire.

(2) (a) On receipt of the application under sub-rule (1), the Chief Inspector-cum-Facilitator shall, within a period of twenty-one days from the date of receipt of application, if he is satisfied that there is no objection to the renewal of the licence, renew the same for a period not exceeding ten years on such conditions as he may specify and issue the same in Form XXXII or may, after recording his reasons, refuse the renewal thereof on any of the grounds specified in the proviso to rule 75.

(b) The Chief Inspector-cum-Facilitator may also refuse the renewal of the licence on the ground that the applicant has been guilty of repeated contraventions of the provisions of the Code or these rules or both or the applicant has obtained the licence by fraud or by misrepresentation:

Provided that in any case falling under clause (a) or (b), before refusing any licence, the applicant shall be given an opportunity to show cause why the licence should not be refused:

Provided further that if the period for which the renewal of licence is applied is one year or more but does not exceed ten years, the fees payable under this sub-rule therefore per year, shall be at the rate specified in the Schedule to rule 74 and in case during the period of validity of the license, there is an increase in the fees payable, the occupier, within a period of three months from the date of publication of Notification to that effect in the Official Gazette, shall pay the difference in fees payable with effect from the date of such increase till the remainder period of validity of license:

Provided also that where the application for the renewal of the licence is made after the expiry of the due date specified under this sub-rule, the additional graded fees at the percentage of the fees payable for the renewal of the licence specified in column (2) of the Schedule hereto shall be payable for such renewal of the licence for the period of delay specified in column (1) of the Schedule.

SCHEDULE

Period of delay	Percentage of fees
(1)	(2)
Upto one month	10 percent
Upto two months	20 percent
Upto three months	30 percent
Upto four months	40 percent
Upto five months	50 percent
Above five months	100 percent

78. *Revocation of licence.*— The Chief Inspector-cum-Facilitator may, at any time before the expiry of the period for which the licence has been granted or renewed, revoke the licence on any of the grounds specified in the proviso to rule 75 or clause (b) of sub-rule (2) of rule 77.

79. *When licence deemed to be granted or renewed.*— Where application for the grant or for renewal of licence is duly made in accordance with these rules, the factory in respect of which the licence is to be granted or renewed, as the case may be, shall be deemed to be duly licensed until such licence is granted or

renewed or until an intimation that the grant or renewal of the licence has been refused is communicated to such person.

Explanation:- For the purpose of this rule, an application for the grant or renewal of a licence shall be deemed to have been duly made only if it is in the prescribed form and is filled in with all relevant particulars and further is accompanied by a treasury receipt or an invoice for book adjustment, as the case may be, for payment of the fees in accordance with the Schedule annexed to rule 74.

80. *Procedure for transfer of license.*— (1) If a licensee dies or becomes insolvent, the person carrying on the business of such licensee shall not be liable to any penalty under the Code for exercising the powers granted to the licensee by the licence during such time as may reasonably be required to allow him to make an application for the amendment of the licence under rule 76 in his own name for the unexpired portion of the original licence.

(2) 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. The application for transfer in electronic mode in Form XXXI shall be submitted by the new occupier on whose name the license is to be transferred along with a fee of one thousand rupees.

(3) The Chief Inspector-cum-Facilitator may, on receipt of the application in electronic mode under sub-rule (2) and on being satisfied that there is no objection to the transfer of licence applied for, transfer the licence and issue the same in Form XXXII subject to such conditions as he may specify.

81. *Suspension of licence on request of licensee.*— (1) If before the 31st October of any year an occupier notifies his intention in writing to the Chief Inspector-cum-Facilitator that during the following year the premises in respect of which licence is issued will not be used for the working of the factory, the Chief Inspector-cum-Facilitator may suspend the licence granted in respect of such factory.

(2) A licence suspended under sub-rule (1) may be revived on receipt of an application for renewal in electronic mode in Form XXXIII, for the remaining part of the year, on payment of a surcharge of ten percent in addition to the fees specified in these rules.

82. *Notice of occupation.*— The notice of occupation shall be in Form XXXI.

83. *Notice of change of manager.*— Notice of change of manager shall be in Form XXXIV.

84. *Liability of owner of premises in certain circumstances.*— (1) Where in any premises separate buildings are leased to different occupiers for use as separate factories, the owner of the premises shall be responsible for the provision and maintenance of common facilities and services, such as approach roads, drainage, water supply, lighting and sanitation.

(2) The Chief Inspector-cum-Facilitator shall have power to issue orders to the owner of the premises in respect of the carrying out of the provisions of sub-rule (1).

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

- (i) latrines, urinals and washing facilities in so far as the maintenance of the common supply of water for these purposes is concerned;
- (ii) fencing of machinery and plant belonging to the owner and not specifically entrusted to the custody or use of an occupier;
- (iii) safe means of access to the floors or flats and maintenance and cleanliness of staircases and common passages;

- (iv) precautions in case of fire;
- (v) maintenance of hoists and lifts; and
- (vi) maintenance of any other common facilities provided in the premises.

(4) The Chief Inspector-cum-Facilitator shall have the power to issue orders to the owner of the premises in respect of the carrying out the provisions of sub-rule (3).

(5) The provisions of sub-rule (3) relating to the liability of the owner shall apply where in any premises independent rooms with common latrines, urinals and washing facilities are leased to different occupiers for use as separate factories:

Provided that the owner shall be responsible also for complying with the requirements relating to the provisions and maintenance of latrines, urinals and washing facilities.

(6) The Chief Inspector-cum-Facilitator shall have the power to issue orders to the owner of the premises referred to in sub-rule (5) in respect of the carrying out of the provisions related to canteen or crèche.

(7) Where in any premises portions of a room or a shed are leased to different occupiers for use as separate factories by the owner, the Chief Inspector-cum-Facilitator shall have the power to issue orders to the owner of the premises in respect of the carrying out the provisions as may be specified in the order.

(8) In respect of sub-rules (5) and (7), while computing for the purposes of any of the provisions of this Code the total number of workers employed, the whole of the premises shall be deemed to be a single factory.

85. *Dangerous operations.*— (1) The following operations when carried on in any factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code are declared to be dangerous operations under section 82 -

- I. Manufacture of aerated water and processes incidental thereto;
- II. Electrolytic plating or oxidation of metal articles by use of an electrolyte containing chromic acid or other chromium compounds;
- III. Manufacture and repair of electric accumulators;
- IV. Glass manufacture;
- V. Grinding or glazing of metals;
- VI. Manufacture and treatment of lead and certain compounds of lead;
- VII. Generating petrol gas from petrol;
- VIII. 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;
- IX. Liming and tanning of raw hides and skins and processes incidental thereto;
- X. Certain lead processes carried on in printing presses and type foundries;
- XI. Manufacture of pottery;
- XII. Chemical works;
- XIII. Manufacture of articles from refractory materials;
- XIV. 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;
- XV. Handling or manipulation of corrosive substances;
- XVI. Processing of cashew nuts;
- XVII. Compression of oxygen and hydrogen produced by the electrolysis of water;

- XVIII. Process of extracting oils and fats from vegetables and animal sources in solvent extraction plants;
- XIX. Manufacture or manipulation of manganese and its compounds;
- XX. Manufacture or manipulation of dangerous pesticides;
- XXI. Manufacture, handling and usage of benzene and substances containing benzene;
- XXII. Manufacturing process or operations in carbon disulphide plants;
- XXIII. Manufacture or manipulation of carcinogenic dye intermediates;
- XXIV. Operations involving high noise and vibration levels;
- XXV. Manufacture of Rayon by Viscose Process;
- XXVI. Handling and Processing of Highly Flammable liquids and flammable compressed Gases;
- XXVII. Operations in Foundries
- XXVIII. Fireworks manufactories and match factories;
- XXIX. Manipulation of stone or any other material containing free silica.
- XXX. Shipbuilding and ship-repairing
- XXXI. Process of melting metal in Induction Furnace

(2) The provisions specified in the schedules annexed hereto shall apply to all class or description of factories as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code wherein dangerous operations specified in each schedule are carried on.

(3) Medical examination of the workers as required by the Schedules annexed to this rule shall be conducted by the Medical Officer appointed under the Code or the Medical Inspector of Factories appointed by the Government or a facility set up by the Government including Goa Medical College and Hospital or recognized Factory Medical Officer or a recognized Occupational Health Laboratory.

(4) (a) In case the medical examinations of the workers is carried out by the Medical Officer or the Medical Inspector of Factories, the occupier of the factory shall pay fees at such rates as may be notified by the Government from time to time for examination of each worker.

(b) The fees specified under sub-rule (4) (a) shall be exclusive of any charges for biological, radiological or other tests which may have to be carried out in connection with the medical examinations. Such charges shall be paid by the factory.

(5) Notwithstanding the provision specified in the Schedules annexed to this rule, the Inspector-cum-Facilitator may, by issue of orders in writing to the manager or occupier or both, direct them to carry out such measures, and within such time, as may be specified in such order with a view to remove conditions dangerous to the health of the workers, or to suspend any process, where such process constitutes, in the opinion of the Inspector-cum-Facilitator imminent danger of poisoning or toxicity.

(6) Any register or record of medical examinations and tests connected therewith required to be carried out under any of the Schedules annexed hereto in respect of any workers shall be kept readily available to the Inspector-cum-Facilitator and shall be preserved for a minimum period of fifteen years after retirement or cessation of employment.

(7) Specific tests to be conducted for the purpose of carrying out medical examination of a worker shall be in accordance with the Schedule herein below and the same shall be in addition to the other biochemical, pathological, biological and instrumental investigations which the authority or the agency conducting the medical examination as specified in sub-rule (3), may specify to assess the occupational health status of a worker.

SCHEDULE

Schedule	Dangerous manufacturing processes or operation	Specific Tests to be conducted
I	Manufacture of aerated water and processes incidental thereto	As advised by the Medical Officer appointed under the Code or recognized Factory Medical Officer
II	Electrolytic plating or oxidation of metal articles by use of an electrolyte containing chromic acid or chromium compounds	(i) X-ray chest Pre-employment and then, every five years or earlier if indicated. (ii) Assessment of the chemical in blood/urine such as chromium in blood and urine, nickel in urine and cadmium in urine. (iii) Assessment of metabolites (where the chemical cannot be measured) in blood/urine, any other biological sample.
III	Manufacture and repair of electric accumulators	(i) Assessment of chemical in blood / urine such as Aminolevulinic acid in urine, lead in urine and blood, haemoglobin % steadiness test
IV	Glass manufacture	(i) X-ray chest Pre-employment and then every five years or earlier if indicated. (ii) Pulmonary function tests (iii) Assessment of lead in blood, urine.
V	Grinding or glazing of metals	(i) X-ray chest Pre-employment and then every five years or earlier if indicated. (ii) Pulmonary function test
VI	Manufacture and treatment of lead and certain compounds of lead	(i) Assessment of chemical in blood/urine such as lead in blood and urine, Aminolevulinic acid in urine, haemoglobin % steadiness test
VII	Generating petrol gas from petrol	As advised by the Medical Officer appointed under the Code or recognized Factory Medical Officer
VIII	Cleaning or smoothing, roughening, etc of articles by a jet of sand, metal shot or grit or other abrasive propelled by blast of compressed air or steam	(i) X-ray chest Pre-employment and then every five years or earlier if indicated. (ii) Pulmonary function test
IX	Limming and tanning or raw hides and skins and processes incidental thereto	(i) Skin test for dermatitis and detection of anthrax by gram stain.
X	Certain lead processes carried on in printing process and type foundries	(i) Assessment of chemical in blood/urine such as lead in blood and urine, Aminolevulinic acid in urine, haemoglobin % steadiness test

XI	Manufacture of pottery	(i) X-ray chest Pre-employment and then every five years or earlier if indicated. (ii) Pulmonary function test (iii) Assessment of chemical in blood/urine such as lead in blood and urine, Aminolevulinic acid in urine, haemoglobin % steadiness test
XII	Chemical works	As advised by the Medical Officer appointed under the Code or recognized Factory Medical Officer
XIII	Manufacture of articles from refractory materials	(i) X-ray chest Pre-employment and then every five years or earlier if indicated. (ii) Pulmonary function test
XIV	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	(i) Chest X-ray Pre-employment and then every five years or earlier if indicated. (ii) Pulmonary function test
XV	Handling or manipulation of corrosive substances	As advised by the Medical Officer appointed under the Code or recognized Factory Medical Officer
XVI	Processing of cashew nuts	(i) Skin test for dermatitis
XVII	Compression of oxygen and hydrogen produced by the electrolysis of water	As advised by the Medical Officer appointed under the Code or recognized Factory Medical Officer
XVIII	Process of extracting oils and fats from vegetable and animal sources in solvent extraction plants	As advised by the Medical Officer appointed under the Code or recognized Factory Medical Officer
XIX	Manufacture or manipulation of manganese and its compounds	(i) Assessment of serum calcium, serum phosphate and manganese in blood and urine. (ii) Steadiness test (iii) Neuro-muscular co-ordination test
XX	Manufacture or manipulation of dangerous pesticides	(i) Determination of the chemical in blood and fat tissues, Electroencephalography (EEG) abnormalities and memory test (ii) Depression of cholinesterase in plasma and red blood cells
XXI	Manufacture, handling and usage of benzene and substances containing benzene.	(i) Phenol in urine and determination of urinary sulphide ratio and central nervous system and hematological tests

XXII	Manufacturing process or operations in carbon disulphide plants	(i) 2 - thioxothiazolidine – 4 – Carboxylic Acid (TTCA) in urine.
XXIII	Manufacture or manipulation of carcinogenic dye intermediates	(i) Detection of <i>Methemoglobinemia</i> in blood, para-Nitrophenylphosphate in urine (ii) Pulmonary function test (iii) Central nervous system test
XXIV	Operations involving high noise levels	(i) Audiometry
XXV	Manufacture of Rayon by Viscose process	(i) Iodine azide test on urine, cholesterol in serum. (ii) Electro cardiogram (iii) Central nervous system test
XXVI	Highly flammable liquids and flammable compressed gases	As advised by the Medical Officer appointed under the Code or recognized Factory Medical Officer
XXVII	Foundry Operations	(i) Chest X-ray Pre-employment and then every five years or earlier if indicated. (ii) Pulmonary function test (iii) Fundus examination of eyes
XXVIII	Fireworks manufactories and match factories	As advised by the Medical Officer appointed under the Code or recognized Factory Medical Officer
XXIX	Manipulation of stone or any other material containing free silica	(i) Chest X-ray Pre-employment and then every five years or earlier if indicated. (ii) Pulmonary function test.
XXX	Shipbuilding and ship-repairing	(i) Audiometry (ii) Fundus examination of eyes
XXXI	Process of melting metal in Induction Furnace	(i) Chest X-ray Pre-employment and then every five years or earlier if indicated. (ii) Pulmonary function test

(8) Other tests / investigations to be conducted for the purpose of carrying out medical examination of a worker before employment and thereafter at specified intervals shall consist of blood investigations for hemoglobin, total WBC count, differential count, blood grouping, fasting blood sugar level, serum creatinine, blood urea, electro cardio gram, urine (routine and microscopic), audiometry, X-ray chest, eye test including colour vision, pulmonary function test and any other test(s) which the authority or the agency conducting the medical examination as specified in sub-rule (3), may specify.

(9) Notwithstanding the provisions specified in the Schedules to this rule, the occupier and the manager shall provide adequate safeguards prior to the employment of women except for pregnant women and lactating mother, in the dangerous operations specified in the Schedules to this rule, so as to ensure their safety and health.

SCHEDULE I

Manufacture of Aerated Waters and processes incidental thereto

1. *Fencing of machines.*— All machines for filling bottles or siphons shall be so constructed, placed or fenced, as to prevent, as far as may be practicable, a fragment of a bursting bottle or siphon from striking any person employed in the factory.

2. *Face guards and gauntlets.*— (1) The occupier shall provide and maintain in good conditions 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:

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 bottle work upon it is exposed to danger, a gauntlet need not be provided for the arm which is not 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 labeling bottles or siphons-

- (a) suitable face-guards to protect the face, neck and throat; and
- (b) suitable gauntlets for both arms to protect the arm and at least half of the palm and the space between the thumb and forefinger.

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

SCHEDULE II

Electrolytic plating or oxidation of metal articles by use of an electrolyte containing chromic acid or other chromium compounds

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

- (a) “electrolytic chromium process” means the electrolytic planting or oxidation of metal articles by the use of an electrolyte containing chromic acid or other chromium compounds;
- (b) “bath” means any vessel used for an electrolytic chromium process or for any subsequent process;
- (c) “employed” means in paragraphs 5, 7, 8 and 9 of this Schedule, employed in any process involving contact with liquid from a bath; and
- (d) “suspension” means suspension from employment in any process involving contact with liquid from any bath by written certificate in the health register signed by the Medical Officer who shall have power of suspensions as regards all persons employed in any such process.

2. *Exhaust draught.*— (a) An efficient exhaust draught shall be applied to every vessel in which an electrolytic chromium process is carried on. Such draught shall be provided by mechanical means and shall operate on the vapour or spray given off in the process as near as may be at the point of origin.

(b) 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.

(c) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(d) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(e) A report containing particulars of such examination and test shall be maintained in Form XXXV.

3. *Prohibition relating to pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother 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 clothing.*— (1) The occupier shall provide and maintain in good and clean condition the following articles of protective clothing for the use of all persons employed on any process at which they are liable to come in contact with liquid from a bath and such clothing shall be worn by the persons concerned—

(a) waterproof aprons and bibs; and

(b) for persons actually working at a bath, loose fitting rubber gloves and rubber boots or other waterproof footwear.

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

6. *Cautionary placard.*— A cautionary placard 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.

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

8. *Medical examination.*— (1) Every person employed in electrolytic chrome process, shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before employment in the said process and if found fit, shall be granted a certificate of fitness in Form XXXVI and after the first examination he shall be examined by the authority or the agency as specified in sub-rule (3) of this rule at intervals of not more than one year.

(2) If at any time, the Medical Officer is of the opinion that any person is no longer fit for employment in the said process on the grounds that continuance therein would involve special danger to the health of the worker, he shall cancel the certificate of fitness issued to him.

9. *Weekly examinations.*— (1) The occupier of every factory shall appoint a qualified medical practitioner whose appointment shall be subject to confirmation by the Chief Inspector-cum-Facilitator.

(2) No person shall be employed in electrolytic chrome process unless he has been examined and found fit for the said process by the qualified medical practitioner. Such examination shall include inspection of hands, forearms and nose and will be carried out at intervals of not more than one week. The results of such examination shall be maintained in a health register in Form XXVIII. The register shall be kept by the manager and shall contain the names of all persons employed in the said process and the certificate of fitness in respect of each person issued by the authority or the agency as specified in sub-rule (3) of this rule shall be attached thereto.

(3) If at any time, the qualified medical practitioner is opinion that any person is no longer fit for employment in the electrolytic chrome process, he shall make a record of his findings in the health register and intimate the manager in writing that the said person is unfit for work in the said process.

(4) A person so found unfit by the registered medical practitioner shall be sent by the manager to the Medical Officer with a report from the qualified medical practitioner. The Medical Officer after examination may suspend the said person from working in the said process. No person after suspension shall be employed without written sanction from the Medical Officer entered in or attached to the Health Register.

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 purpose of this Schedule.

- (a) ‘lead process’ means the melting of lead or any material containing lead, casting, pasting, lead burning, 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;
- (c) “suspension” means suspension from employment in any lead process by written certificate in the health register (Form XXVIII) signed by the Medical Officer who shall have power of suspension as regards all persons employed in any such process; and
- (d) “first employment” means first employment in a lead process in a factory and also re-employment thereof in a lead process following any cessation of employment in such process for a period exceeding three calendar months.

3. *Prohibition relating to pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or adolescent persons 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 effective separation from one another, and from any other process—

- (a) manipulation of raw oxide of lead;
- (b) pasting;
- (c) drying of pasted plates;
- (d) formation with lead burning (racking) necessarily carried on in connection therewith;
- (e) melting down of pasted plates; and
- (f) the grid casting soap.

5. *Air space.*— In every room in which lead process is carried on, there shall be at least 15.0 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 one paster and that of the paster working nearest to him shall not be less than 1.5 meters.

8. *Floor of workroom.*— (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 obstruction 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 a hose pipe.

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

- (a) have a smooth surface and be maintained in sound condition and
- (b) be kept free from all materials or plant not required for, or produced in, the process carried on thereat;

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

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

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

- (d) be cleansed daily;

and every work-bench used for pasting shall;

- (e) be covered throughout with sheet lead or other impervious material;
- (f) be provided with raised edges; and
- (g) be kept constantly moist while pasting is being carried on;

and every work-bench used for trimming, brushing, filling or may any other abrading or cutting of pasted plates shall-

- (h) be fitted with a top having opening or grill which shall allow any clippings, filling or dust produced to all into a collecting through containing water.

10. *Exhaust draught.*— 1) The following processes shall not be carried on without the use of an efficient exhaust draught.

- (a) melting of lead or materials containing lead;
- (b) manipulation of raw oxide of lead, unless done in an enclosed apparatus so as to prevent the escape of dust into the workroom.

- (c) Pasting;
- (d) Trimming, brushing, filing or any other abrading or cutting of pasted plates giving rise to dust;
- (e) Lead burning, other than;
 - (i) tacking in the formation room; and
 - (ii) chemical burning for the making of lead lining for cell cases necessarily carried on in such a manner that the application of efficient exhaust is impracticable.

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

(c) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(d) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(e) A report containing particulars of such examination and test shall be maintained in Form XXXV.

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

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

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

14. *Racks and shelves in drying room.*— (1) racks or shelves provided in any drying room shall not be more than 2.4 meters from the floor nor more than 60 centimeters in width:

Provided that as regards racks or shelves set or drawn from both sides the total width shall not exceed 120 centimeters

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

15. *Protective clothing.*— (1) Protective clothing shall be provided and maintained in good repair for all persons employed in –

- (a) manipulation of raw oxide of lead.
- (b) Pasting
- (c) The formation room.

And such clothing shall be worn by the persons concerned.

(2) The protective clothing shall consist of waterproof footwear; and in addition as regards persons employed in the manipulation of raw oxide of lead or in pasting, head coverings. The head coverings shall be washed daily.

16. *Mess room.*— There shall be provided and maintained for the use of all persons employed in a lead process and remaining on the premises during the meal intervals, a suitable messroom, which shall be furnished with sufficient tables and benches, and adequate means for warming food. The messroom shall be placed under the charge of a responsible person, and shall be kept clean.

17. *Cloakroom*.— There shall be provided and maintained for the use of all persons employed in a lead process-

- (a) a cloakroom for clothing put off during working hours with adequate arrangements for drying the clothing if wet, which accommodation shall be separate from any messroom; and
- (b) separate and suitable arrangements for the storage of protective clothing provided under paragraph 15.

18. *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 under cover, with either-
 - (i) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow of at least 60 centimeters for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimeters; or
 - (ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water laid on;
- (b) a sufficient supply of clean towels made of suitable materials renewed daily, which supply, in the case of pasters and persons employed in the manipulation of raw oxide of lead, shall include a separate marked towel for each such worker; and
- (c) a sufficient supply of soap or other suitable cleansing material and of nail brushes.

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

19. *Time to be allowed for washing*.— Before each meal and before the end of the day's work, at least ten minutes, in addition to the regular meal times, shall be allowed for washing to each person who has been employed in the manipulation of raw oxide of lead or in pasting:

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

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

21. *Food, drinks, etc. prohibited to 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.

22. *Storage of lead oxides*.— All bags containing or having contained oxide of lead shall be kept in a closed room used only for this purpose.

23. *Re-use of paper or cloth restricted*.—

- (a) Paper once used for backing or drying pasted plates shall not be used again in the factory.
- (b) Cloth once used for backing or drying pasted plates shall not be stored or handled unless it is moist so as not to give off dust.

24. *Medical examination*.— 1) Every person employed in a lead process shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment in such process and thereafter shall be examined by the authority or the agency as specified in sub-rule (3) of this rule once

in every six months, or at such other intervals as may be specified in writing by the Chief Inspector-cum-Facilitator.

(2) A health register in Form XXVIII containing the names of all persons employed in a lead process shall be kept.

(3) No person after suspension shall be employed in a lead process without written sanction from the Medical Officer entered in or attached to the health register.

SCHEDULE IV

Glass manufacture

1. *Definitions.*— For the purposes 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 of soluble lead compound exceeding, when calculated as lead monoxide, five per cent of the dry weight of the portion taken for analysis.

The method of treatment shall be as follows:-

A weighed quantity of the material which has been dried at 100 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 be precipitated as lead sulphide and weighed as lead sulphate.

- (c) “Suspension” means suspension from employment in any process specified in paragraph 3 by written certificate in the health register in Form XXVIII, signed by the Medical Officer who shall have power of suspension as regards all persons employed in any such process:-

2. *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 “batch”
- (b) the dry grinding. Glazing and polishing of glass or any article of glass;
- (c) all processes in which hydrofluoric acid fumes or ammoniac 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) (a) 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.

(b) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(c) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(d) A report containing particulars of such examination and test shall be maintained in Form XXXV.

3. *Prohibition relating to pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or adolescent person shall be employed or permitted to work in any of the operations specified in paragraph 2 or at any place where such operations are carried on.

4. *Floor and work-benches.*— The floor and work-benches of every room in which a dry compound of lead is manipulated or in which any process is carried on giving off silica dust shall be kept moist and 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 conditions; and
- (iii) cleansed daily after being thoroughly spread with water at a time when no other work is being carried on in the room; and

(b) the work-benches shall-

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

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

- (a) there shall be inlets and outlets of adequate size as to secure and maintained 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 bringing in the objects to be treated shall be as small as practicable; and
- (d) the efficient exhaust draught shall be so contrived that the gases are exhausted downwards.

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

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

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

9. *Protective clothing.*— The occupier shall provide, maintain in good repair and keep in a clean condition for the use of all persons employed in the processes specified in paragraph 2, suitable protective clothing, footwear and goggles according to the nature of the work and such clothing, footwear, etc. shall be worn by the persons concerned.

10. *Washing facilities.*— There shall be provided and maintained in a clean state and in good repair for the use of all persons employed in the processes specified in paragraph 2;

(a) a wash place with either-

- (i) a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow of at least 60 centimeters for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimeters ; or
- (ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having an adequate supply of water laid on or always readily available;
- (b) a sufficient supply of lean towels made of suitable material renewed daily with a sufficient supply of soap or any other suitable cleansing material and of nail brushes; and
- (c) a sufficient number of stand pipes with taps the numbers and location of which shall be to the satisfaction of the Chief Inspector.

11. *Medical examinations.*— (1) Every person employed in any process specified in paragraph 2 shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment in such process and thereafter he shall be examined by the authority or the agency as specified in sub-rule (3) of this rule once in every six months or at such other intervals as may be specified in writing by the Chief Inspector-cum-Facilitator.

(2) A health register in Form XXVIII containing the names of all persons employed in any process specified in paragraph 2 shall be kept.

(3) No person after suspension shall be employed in any process specified in paragraph 2 without written sanction from the Medical Officer entered in or attached to the health register.

12. *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 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.

SCHEDULE V

Grinding, or glazing of metals and processes incidental thereto

1. *Definitions.*— For the purpose of this Schedule –

- (a) “grindstone” means a grindstone composed of natural or manufactured sandstone by does not include a metal wheel 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 up, polishing or finishing by and 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 dress 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.

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 places 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 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.

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 Roding.*— Hacking or Roding 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 2.

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

(2). A register containing particulars of such examination and test shall be kept in Form XXXV.

7. *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 employed in the grinding or glazing of metals.

(2) Nothing in this Schedule except paragraph 3 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.

8. *Exemption.*— The Chief Inspector-cum-Facilitator may by certificate in writing, subject to such conditions as he any specify therein, relax or suspend any of the provisions of the 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. *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 is carried on;
- (b) the manipulation, treatment or reduction of ashes containing lead, the delivering of lead or the melting of scrap lead or zinc.
- (c) The manufacture of solder or alloys containing more than ten per cent of lead,
- (d) The manufacture of any oxide, carbonate, sulphate, chromate, acetate, nitrate or silicate of lead;
- (e) The handling or mixing of lead tetra-ethyl;

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

2. *Definitions.*— For the 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 percent 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 “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 treatments shall be as follows: -

A weighed quantity of the material which has been dried at 100-degree C and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 per cent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered.

The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate;

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

3. *Prohibition relating to pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or adolescent person shall be employed or permitted to work in any of the operations specified in paragraph 1.

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

5. *Exhaust draught.*— (a) Where dust, fume, gas or vapour is produced in the process, provision shall be made for removing them by means as to operate on the dust, fume, gas or vapour as closely as possible to the point of origin.

(b) 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.

(c) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(d) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(e) A report containing particulars of such examination and test shall be maintained in Form XXXV.

6. *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 in and no person shall remain in any such room during intervals for meals or rest.

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

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

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

- (a) a trough with a smooth impervious surface fitted with a waste pipe without plug and of sufficient length to allow at least 60 centimeters for every ten persons employed at any one time, and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 60 centimeters; 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, soaps or other suitable cleansing material and clean towels.

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

10. *Mess room or canteen.*— The occupier shall provide and maintain for the use of the persons employed suitable and adequate arrangements for taking 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 or warming the food. The room shall be adequately ventilated by the circulation of fresh air, shall be placed under the charge of a responsible person and shall be kept clean.

11. *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 clothes.

12. *Certificate of fitness.*— A person medically examined under paragraph 13 and found fit for employment shall be granted by the authority or the agency as specified in sub-rule (3) of this rule a certificate of fitness in Form XXXVI and such certificate shall be in the custody of the manager of the factory. The certificate shall be kept readily available for inspection by any Inspector-cum-Facilitator and the person granted such a certificate shall carry with him, while at work, a token giving reference to such certificate.

13. *Medical examination.*— (1) The person so employed shall be medically examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment in such process and thereafter he shall be examined by the authority or the agency as specified in sub-rule (3) of this rule at intervals of not more than six months, and a record of such examination shall be entered by the authority or the agency as specified in sub-rule (3) of this rule in the special certificate of fitness granted under paragraph 12.

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

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

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

SCHEDULE VII

Generating petrol, gas from petrol

1. *Prohibition relating to pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or adolescent person shall be employed or permitted to work in or shall be allowed to enter any building in which the generation of gas from dangerous petroleum as defined in clause (b) of Section 2 of the Petroleum Act, 1934, 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 the “generating building”). In the case of such plants erected before the coming into force of the provisions specified in this Schedule, there shall be no direct 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.

Provided that where the Government is satisfied in respect of any factory that the plant for generating of gas from dangerous petroleum as defined in clause (b) of Section 2 of the Petroleum Act, 1934, is no account of the special precautions adopted or contrivances used for such plant, not likely to expose any persons employed in such factory to any serious risk of bodily injury, the Government may, by notification, exempt such factory wholly or partially from the provisions of this clause for such period and on such conditions as it may specify.

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.*— Petrol gas shall not be manufactured except in a plant for generation petrol gas, the design and construction of which has been approved by the Chief Inspector-cum-Facilitator.

6. *Escape of petrol.*— Effective steps shall be taken to prevent petrol from escaping into any drain or sewer.

7. *Prohibition relating to smoking.*— 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 notices 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 petrol or container.*— No unauthorized person shall have access to any petrol or to a vessel containing or having actually contained petrol.

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

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

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

SCHEDULE VIII

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

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

- (a) “blasting” means cleaning, smoothing, roughing or removing of any part of the surface of any article by the use as an abrasive of a jet of sand, metal shot or grit or other material propelled by a blast of compressed air or steam.
- (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 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:

3. *Precautions in connection with blasting operations.*— (i) Blasting to be done in blasting enclosure- Blasting shall not be done except in blasting enclosure and no work other than blasting and any work immediately incidental thereto and clearing and repairing of enclosure including the plant and appliances situated therein, shall be performed in a blasting enclosure. Every door, aperture and joint of blasting enclosure shall be kept closed and airtight while blasting is being done therein.

(ii) 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.

(iii) 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 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. Separating apparatus shall be provided with exhaust draught arrangement to extract and remove the dust by special methods and in such manner so that it shall not escape into air of any rooms in which persons are employed.

Provided that this clause shall not supply, except in the case of blasting chambers, to blasting enclosures constructed or installed before the coming into force of this Schedule, if the Chief Inspector-cum-Facilitator is of opinion that it is not reasonably practicable to provide such separating apparatus.

(iv) 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 setting device, shall be completely separated from the general air of that room in an enclosure ventilated to the open air.

The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided. Any defect disclosed by such examination and test shall be rectified as soon as practicable. A report containing particulars of such examination and test shall be maintained in Form XXXV.

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

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 three months.

(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-Inspector and shall be available for inspection by any workman employed 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 available delay.

(3) Every blasting chamber, separating apparatus and ventilating plant shall be thoroughly inspected at an interval of six months for detecting any defect in their efficient oppressions, and the defects so noticed shall be rectified forthwith.

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 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 than 170 litres per minute.

(4) Suitable gauntlets, overalls, dust-proof goggles and boots 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 gauntlets, overalls, dust-proof goggles and boots so 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 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 measure 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 clothing provided and worn for the purposes of this schedule, shall be cleaned on every weekday in which they are used. Where dust arising from the taken to prevent 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. *Restriction in employment of pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or adolescent person shall be employed or permitted to work in blasting or assisting at blasting or in 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 pregnant women, lactating mother or adolescent person 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 effective separate from any dust coming from the enclosure.

11. *Medical examination.*— (1) Every person 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, shall be medically examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment, the record of which shall be entered in Form XXVIII, and if found fit for employment in the said process, he shall be granted by the authority or the agency as specified in sub-rule (3) of this rule, a certificate of fitness in Form XXXVI.

(2) After the first examination, the person so examined shall be examined by the authority or the agency as specified in sub-rule (3) of this rule at intervals of twelve months and a record of such examinations shall be entered in Form XXVIII.

(3) If at any time the Medical Officer is of the opinion that the person employed in the said process shall be examined radiological by a qualified radiologist, he may direct the occupier to arrange for such examination at his cost and then to submit the standard size chest X-Ray plate of the worker to the Medical Officer.

(4) If at any time the Medical Officer is of the opinion that any person is no longer fit for employment on the grounds that continuance therein would involve special danger to health, he shall cancel the certificate of fitness in Form XXXVI of that person and record in Form XXVIII.

(5) No person whose certificate of fitness in Form XXXVI has been cancelled, shall be employed or permitted to work unless the Medical Officer, after re-examination, again certifies him to be fit for employment in the operations.

(6) The register of the certificate of fitness in Form XXXVI granted by the authority or the agency as specified in sub-rule (3) of this rule and the record made in Form XXVIII by him shall be in the custody of

the manager of the factory and shall be kept readily available for inspection by an Inspector-cum-Facilitator.

12. *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 suspended either temporarily or permanently, or 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, 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.

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 sub-paragraphs (1), (2) and (4) and if chrome solutions are used in the factory, the contents of the notice specified in sub-paragraph (3).

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

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

Provided that 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:

Provided further that the gloves may not be provided to persons fleshing by hand or employed in processes in which there is no risk of contact with lime, sodium sulphide or other caustic liquor.

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

- (a) a trough with a smooth impervious surface fitted with a waste pipe without plug; and of sufficient length to allow of a least 60 centimeters for every ten persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimetres; or at least one wash basin for every ten such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water; together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material and clean towels;
- (b) a suitable mess room, adequate for the number remaining on the premises during the meal intervals, which shall be furnished with sufficient tables and benches and adequate means for warming food and boiling eater. The mess room shall-
 - (i) be separate from any other 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 charges of a responsible person; and
- (c) suitable accommodation for clothing put off during working hours and another accommodation for protective clothing and also adequate arrangements for drying up to the clothing in both the cases, if wet. The accommodation so provided shall be kept clean at all times and places under the charge of a responsible person.

4. *Food, drinks, etc. prohibited in workrooms.*— No food, drinks, pan and supari or tobacco shall be brought into or consumed by any worker in workroom or shed in which hides or skins are stored, treated or manipulated.

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

- (a) arrange for an inspection of the hands of all persons coming into contact with chrome solution to be made twice a week by a responsible person and
- (b) provided and maintained a sufficient supply of suitable ointment and impermeable waterproof plaster in boa readily accessible to the worker and used solely for the purpose of keeping the ointment and paster.

SCHEDULE X

Printing Presses and Type Foundries and certain lead processes carried therein.

1. *Definitions.*— For the purposes 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 of other treatment of lead material.
- (c) “efficient exhaust draught” means localized ventilation effected by heat or mechanical means, for the removal of gas, vapour, dust or fumes so as to prevent them from escaping into the air of any

place in which work is carried on. No draught shall be deemed efficient which fails to remove gas, vapour, fume or dust at the point where they originate.

2. *Exhaust draught.*—

(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 electrically heated and thermostically controlled melting pots: -

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

(2) (a) 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.

(b) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(c) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(d) A report containing particulars of such examination and test shall be maintained in Form XXXV.

3. *Prohibition relating to pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or person below 18 years of age shall be employed or permitted to work in any lead process.

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

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

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

6. *Floor of workroom.*— The floor of every work-room where lead process is carried on shall be-

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

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

8. *Washing facilities.*— There shall be provided and maintained in a clean state and in a good repair for the use of all persons employed in a lead benches.

- 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 centimeters for every five such persons employed at any

one time and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimeters.

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

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

9. *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.

10. *Medical examination.*—

(1) Every person employed in a lead process shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment in such processes and thereafter shall be examined by the authority or the agency as specified in sub-rule (3) of this rule at intervals of not more than six months, and a record of such examinations shall be entered by the authority or the agency as specified in sub-rule (3) of this rule in the special certificate of fitness in Form XXXVI.

(2) A health register containing names of all persons employed in any lead process shall be kept in Form XXVIII.

(3) No person after suspension shall be employed in a lead process without the written sanction from the Medical Officer entered in the health register.

11. *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 of such provision subjects to such conditions as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-Facilitator.

SCHEDULE XI

Manufacture of pottery

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

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

2. *Definitions.*— For the purposes of this Schedule –

- (a) “potter” 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 localized ventilation effected by mechanical or other means for removal of dust or fume so as to prevent it from escaping into air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove effectively dust or fume generated at the point where dust or fume originates;
- (c) “fettling” includes scalloping, towing, sand papering, sand stocking, 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 weight quantity of the material which has been fired at 100 degrees centigrade and thoroughly mixed shall be continuously shaken for one hour at the common temperature with 1000 times 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;

- (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, felting or other treatment of pottery articles prior to placing for the biscuit fire is carried on.

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

- (k) sieving or manipulation of powdered flint, quartz, clay grog or mixture of these materials unless it is so damp that no dust can be given off;
 - (l) grinding of tiles on a power driven wheel unless an efficient water spray is used on the wheel;
 - (m) lifting and conveying of materials by elevators and conveyers unless they are effectively enclosed and so arranged as to prevent escape of dust into the air in or near to any place in which persons are employed.
 - (n) Preparation or weighing out of low material lawning of dry colour dusting and colour blowing;
 - (o) mould making unless the bins or similar receptacles used for holding plaster of pairs 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) (a) The exhaust draught appliance shall be so constructed, arranged and maintained as to prevent the dust entering into any room or place in which work is carried on.
- (b) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.
- (c) Any defect disclosed by such examination and test shall be rectified as soon as practicable.
- (d) A report containing particulars of such examination and test shall be maintained in Form XXXV.
4. *Separation of processes.*— Each of the following processes shall be carried on in such a manner and under such conditions as to secure effectual separation from one another, and from other wet processes: -
- (a) crushing and dry grinding or sieving of materials, fettling, pressing of tiles, drying of clay and green ware, loading and unloading of saggars; and
 - (b) all processes involving the use of a dry lead compound.
5. *Prohibition on use of glaze.*— No glaze which is not a leadless glaze of a low solubility glaze shall be used in a factory in which pottery is manufactured.
6. *Prohibition relating to pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or person below 18 years shall be employed or permitted to work in any of the operations specified in paragraph 4, or at any place where such operations are carried on.
7. *Provision of screen to potter's wheel.*— The potter's wheel (Jolly and Jigger) shall be provided with screens or so constructed as to prevent clay scrapings being thrown off beyond the wheel
8. *Controls of dust during cleaning.*— (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 materials shall be used to render the moist method effective in preventing dust rising into the air during the cleaning process which shall be carried out after work has ceased.
9. *Floor of certain workrooms.*— The floors of potter's shops slip houses, dipping houses and ware cleaning rooms shall be hard, smooth and impervious and shall be thoroughly cleaned daily by an adult male using a most method.
10. *Protective equipment.*— (1) The occupier shall provide and maintain suitable overalls and head coverings for all persons employed in process included under paragraph 3.

(2) The occupier shall provide and maintain suitable aprons of a waterproof or similar material, which can be sponged daily for the use of the dippers, dippers assistants, throwers, jolly workers, casters mould makers and filter press and plug 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 heads coverings shall be washed, cleaned and mended at least once a week, and this washing, cleaning or mending shall be provided for by the occupiers.

(4) No person shall be allowed to work in emptying sacks of dusty material, 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 washing place under cover with either-
 - (i) a trough with smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimeters for every five such persons employed at the one time, and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 60 centimeters; or
 - (ii) at least one tap or stand pipe for every five such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 120 centimeters apart; and
- (b) a sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.

12. *Time allowed for washing.*— Before each meal and before the end of the day's work, at least ten minutes, in addition to the regular meal times, shall be allowed for washing to each person employed in any of the processes mentioned in paragraph 3.

13. *Mess room.*— 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 metres 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 worked 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 and rest.

15. *Cloakroom, etc.*— There shall be provided and maintained for the use of all persons employed in any of the processes mentioned in paragraph 3 –

- (a) a cloakroom for clothing put off during working hours and such accommodation shall be separate from any messroom; and

- (b) separate and suitable arrangement for the storage of protective equipment provided under paragraph 10.

16. *Medical examination.*— 1) All persons employed in any process included under paragraph 3 shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before their first employment in such process; thereafter all persons employed in any process included under sub-paragraphs 3 (I) and (xiv) shall be examined by the authority or the agency as specified in sub-rule (3) of this rule once in every six months, and those employed in any process included in sub-paragraphs (ii) to (xii) (xv) and (xvi) of paragraphs 3 once in every 12 months by the authority or the agency as specified in sub-rule (3) of this rule. Records of such examinations shall be entered by the authority or the agency as specified in sub-rule (3) of this rule in the health register and certificate of fitness granted to him under paragraph 17.

(2) If at any time the Medical Officer is of opinion that any person employed in any process included in paragraph 3 is no longer fit for employment on the ground that continuance therein would involve danger to his health, he shall cancel the certificate of fitness granted to that person.

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

17. *Certificate of fitness.*— A person medically examined under paragraph 16 and found fit for employment shall be granted by the authority or the agency as specified in sub-rule (3) of this rule a certificate of fitness in Form XXXVI and such certificate shall be in the custody of the manager of the factory. The certificate shall be kept readily available for inspection by any Inspector-cum-Facilitator and the person granted such a certificate shall carry with him while at work a token giving reference to such certificate.

18. *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 XII

Chemical works

1. *Application.*— This Schedule shall apply to all manufactures and processes incidental thereto carried on in chemical works.

2. *Definitions.*— For the purposes of this Schedule –

- (a) “chemical works” means any factory or such parts of any factory as are named in appendix A to this Schedule;
- (b) “breathing apparatus” means (I) a helmet or face piece with necessary connections by means of which a person using it in a poisonous, asphyxiating or irritant atmosphere breathes ordinary air, or (ii) any other suitable apparatus approved in writing by the Chief Inspector-cum-Facilitator;
- (c) “lifebelt” 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;
- (d) “efficient exhaust draught” means localized ventilation effected by mechanical or other means for the removal of gas, vapour, fume or dust to prevent it from escaping into the air if any place in which work is carried on;

- (e) “suspension” means suspension by written certificate in the health register, signed by the Medical Officer, from employment in any process mentioned in the certificate;
- (f) “bleaching powder” means the bleaching powder commonly called chloride of lime;
- (g) “chlorate” means chlorate or perchlorate;
- (h) “caustic” means hydroxide of potassium or sodium;
- (i) “caustic pot” means a metal pot fixed over a furnace or flue and surrounded by brickwork, such as is commonly used for concentrating caustic liquor, whether such pot be used for concentrating or boiling caustic or other liquor;
- (j) “chrome process” means the manufacture of chromate or bichromate of potassium or sodium, or the manipulation, movement or other treatment of these substances in connection with their manufacture; and
- (k) “nitro or amido process” means the manufacture of nitro or amido derivatives of phenol and of benzene or its homologues, and the making of explosive with the use of any of these substances.

PART I

Applying to all the workers in Appendix A

A – GENERAL

3. *Housekeeping*.— (1) Every part of the path-ways, works, machinery and plant shall be maintained in a clean and tidy condition.

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

(3) Floors, platforms, stairways, passages and gangways shall be kept free of temporary obstructions.

(4) There shall be provided easy means of access to all parts of the plant to facilitate cleaning, maintenance and repairs thereof.

4. *Improper use of chemicals*.— (1) No chemicals or solvents shall be used by workers for any purposes apart from the processes for which they are supplied.

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

5. *Storage of food*.— No food, drink tobacco, pan or similar article shall be stored or consumed on or near any part of the plant.

6. *Testing of materials*.— Workers shall be instructed on the possible dangers arising from the testing of materials, or of the use for drinking purposes of any vessel used in or in connection with, the manufacture of chemicals. These instructions shall further be displayed in bold letters in prominent places in the different sections of the factory or plant.

7. *Process hazards*.— (1) Before commencing any large scale experimental work, or any new manufacture, all possible steps shall be taken to ascertain definitely all the hazards involved both from the actual operations and the chemical reactions thereunder. The properties of the raw materials used, the final products to be made, and any by-products arising during manufacture, shall be carefully studied and provisions shall be made for dealing with any hazards including effects on workers, which may arise during manufacture. Where necessary, advice shall be obtained from the Chief Inspector-cum-Facilitator on measures to be taken in this regard.

(2) Information in writing giving details of the process, its hazards and the steps taken or proposed to be taken for the safety of workers as in (1) above shall be sent to the Chief Inspector-cum-Facilitator before

commencing manufacture, handling or storage of any of the items covered under Appendix A, whether on experimental, pilot plant or large scale basis.

(3) The design of the buildings and plant shall be based on the information as obtained as in (1) above.

8. *Unauthorized personnel.*— (1) Unauthorized persons shall not be permitted to enter any section of the factory or plant where there are special dangers.

(2) Visitors shall be provided, where necessary with suitable safety equipment and shall be accompanied round dangerous plant by a responsible official.

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

10. *Cocks and valves.*— Suitable valves shall be provided in all service lines at sufficiently short intervals for convenience in blanking off, etc. All cocks and valves shall be operated at least once a month and tested periodically by a competent person, and records of these tests shall be kept in register. A plan of all service installations shall be kept readily available for perusal.

11. *Manholes.*— No manhole shall be opened for entry until effective fencing has been erected around it.

12. *Emergency instructions.*— Simple and special instructions shall be framed to ensure that effective measures will be carried out in cases of emergency, to deal with escape of inflammable, poisonous or deleterious gases, vapours, liquids or dusts. These in prominent places in the different sections. All workers shall be trained and instructed as to what action to be taken in such emergencies and to avoid general hazards of their employment.

13. *Protection of reaction mixtures.*— Suitable arrangements shall be made to ensure that no foreign matter of any sort can fall into reaction mixtures.

14. *Electrical apparatus.*— Electrical plant, fittings and conductors shall, if exposed to a damp or corrosive atmosphere, be adequately protected. Periodic tests shall be carried out on all circuits.

15. *Place of work.*— (1) Workers shall only be allowed in those places in which they have been given orders to work.

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

16. *Packing, storage and transport of chemicals.*— Chemicals shall be packed and stored in containers suitable for the purpose and of adequate strength for storage or transport. All such containers shall be suitably labelled so that they will be labeled so that they will be stored and transported in such a manner as to ensure that, in the event of spillage, they will neither produce a reacting mixture, nor cause the development of toxic or fire risks in contact with other products in its vicinity, or with walls, floors or dust thereon.

B-FIRE EXPLOSION RISKS

17. *Requirement regarding location of site, buildings etc.*— (1) Buildings and plant shall be sited with due regards to the dangers which may arise from the processes involved and in particular shall be spaced at distances which are deemed safe from the fire and explosive risks connected with the processes in adjacent buildings. Due consideration shall be given to the effect of any processes carried out in adjacent factories.

(2) Where special dangers exist, separate buildings shall be used for the different parts of a process. They shall be spaced at sufficient distances apart and shielded to prevent damage to each other in the event of fire or explosion, and shall be safeguarded by the provision of suitable blow-out panels or roofs. Where

the risk of fire or explosion is considerable, the building shall be divided by blast or protective screen walls.

(3) No combustible materials shall be used in the erection of working buildings, unless there are special reasons necessitating their use, when they shall be rendered fire-resistant. The roof shall be of light fire-resistant construction and floors shall be of impervious fire-resistant material and shall be regularly maintained in such condition.

18. *Dangers of ignition (including lighting installations).*— (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 shall be installed or used in a building or danger zone. Electrical conductors shall be fitted with screwed steel conduits.

(2) All hot exhaust pipes shall be installed outside a building and other pipes shall be suitably protected.

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

(4) Where an inflammable atmosphere may occur, the soles of footwear worn by workers shall have no metal on them and wheels of trucks or conveyors shall be of conducting, non-sparking materials. Adequate precautions shall be taken to prevent the ignition of explosive or inflammable substances by sparks emitted from locomotives or other vehicles operated in the factory on public lines.

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

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

(7) A sufficient supply of spades, scrapers and pails made from non-sparking material shall be provided for the use of persons employed in cleaning out or removing residues from any chamber, still, tank or other vessel where an inflammable or explosive danger may occur.

(Note:- The risk is not always obvious and may arise, for example, through the production of hydrogen in acid tanks.)

19. *Static electricity.*— (1) All machinery and plant, particularly, pipe lines and belt drives, on which static electricity is likely to accumulate, shall be effectively earthed. Receptacles for inflammable liquids shall have metallic connections to the liquids shall have metallic connections to the earthed supply tanks to prevent static sparking. Where necessary, humidity shall be controlled.

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

20. *Lightning protection.*— Lightning protection apparatus shall be fitted where necessary, and shall be maintained in good conditions.

21. *Process heating.*— The method of providing heat for a process shall be as safe as possible and where the use of naked flame is necessary, the plant shall be so constructed as to prevent any escaping of inflammable gas, vapour or dust coming into contact with the flame or exhaust gases or other agency likely

to cause ignition. So far as practicable, the hearing medium shall be automatically controlled at a predetermined temperature below the danger temperature.

22. *Escape of materials.*— (1) Provision shall be made in all plants, sewers, drains, flues, ducts, culverts and buried pipes to prevent the escape and spread of any liquid, gas, vapour, fume or dust likely to give rise to fire or explosion, both during normal working hours and in the event of accident or emergency.

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

23. *Leakage of inflammable liquids.*— (1) Provision shall be made to confine by means of bund walls, sumps, etc. all possible leakage from vessels containing inflammable liquids.

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

24. *Cleaning of empty containers, etc.*— (1) All empty containers which have held inflammable liquids, and metal containers which have held sulphuric acid shall be rendered permanently safe as soon as practicable, and shall not be repaired or destroyed until such cleaning has been completed.

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

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

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

26. *Packing of reaction vessels.*— Packing and joint materials for reaction vessels (including covers, manhole covers, and exhaust pipes) and pipe lines and also the high or low temperature insulating materials shall not contain such materials which are combustible or which react with the products of the plant.

27. *Safety valves.*— Every still and every closed vessel in which gas is evolved or into which gas is passed, and in which the pressure is liable to rise to pressure gauge, and a proper safety valve or other equally efficient means to relieve the pressure and it shall be maintained in good condition. Nothing in this paragraph shall apply to metal bottles or cylinders used for the transport of compressed gases.

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

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

30. *Alarm systems.*— (1) Gravity or pressure feed systems for supplying inflammable materials to the various parts of the buildings or plant shall be fitted with alarm systems, automatic cutoffs or other devices to prevent over-charging or otherwise endangering of the plant.

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

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

C-GAS, VAPOUR, FUME OR DUST RISKS

31. *Escape of gases etc.*— Effective steps shall be taken to prevent the escape of dangerous gases, vapours, fumes or dust from any part of the plant, by the total enclosure of the process involved in air tight chamber or by the provisions of efficient exhaust draught. Effective arrangements shall be made to ensure that in the event of failure of the control measure provided as above the process shall stop immediately and the dangerous gases, vapours, fumes or dust which have escaped are trapped and rendered safe.

32. *Danger due to effluents.*— (1) Adequate precautions shall be taken to prevent the mixing of effluents which may cause dangerous or poisonous gases to be evolved.

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

33. *Staging.*— (1) Staging shall not be erected over any open vessel is so constructed and ventilated to prevent the emission of vapours of fumes about such staging.

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

(3) Such staging shall be fitted with suitable handrails and to boards and the floors and staging shall be impervious and easily cleaned.

34. *Instructions as regards risk.*— Before commencing work, every worker shall be fully instructed about the properties of the materials they have to handle, and of the dangers arising from any gas, fume, vapour or dust which may be evolved during the process. Workers shall also be instructed of the measures to be adopted to deal with such an escape of dangerous gas, fume, vapour or dust in the event of emergency.

35. *Breathing apparatus.*— (1) There shall be provided in every factory where dangerous gas or fume is liable to escape a sufficient supply of-

(a) breathing apparatus of an approved make for the hazards involved.

(b) Oxygen and suitable means of its administration; and

(c) Life-belts.

(2) The breathing apparatus and other appliances required by this paragraph shall

(a) be maintained in good order and kept in an ambulance room or in some other place approved in writing by the Chief Inspector-cum-Facilitator; and

(b) be thoroughly inspected once every month by a competent person appointed in writing by the occupier and a record of their conditions shall be entered in a book provided for that purpose which shall be produced when required by an Inspector-cum-Facilitator.

(3) Workers shall be trained and given a periodic refresher course, in the use of breathing apparatus and respirators.

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

36. *Treatment of persons.*— In every room or place so specified in writing by the Chief Inspector-cum-Facilitator, there shall be affixed the official cautionary notice regarding dangerous gases and burns. Such notices shall be legible by day and by night and shall be printed in the language understood by the majority of the workers.

37. *Personal protective equipment.*— (1) Suitable protective clothing shall be provided for the use of operators.

- (a) When operating on valves or cocks controlling fluids which by their nature, pressure or temperature would be highly dangerous if a blowout were to occur or when cleaning chokes in systems containing such fluids, if pressure is likely to exist behind the chokes.
- (b) When there is danger of injury by absorption of corrosive substance through skin during the performance of normal duties or in the event of emergency.
- (c) Whenever there is risk of poisonous materials being carried away on the clothes of operators.

(2) There shall be provided for the use of all persons employed in the process specified in appendix B an adequate supply of suitable protective equipment including gloves, overalls and protective footwear and of goggles and respirators. Respirators shall be of a type approved in writing by the Chief Inspector-cum-Facilitator.

(3) Protective equipment shall be provided and stored in the appropriate place for use during abnormal conditions or in an emergency.

(4) Arrangements shall be made for the proper and efficient cleaning of all such protective equipment.

38. *Cloakrooms.*— There shall be provided and maintained for the use of all persons employed in the process specified in appendix B, 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.

39. *Special bathing facilities.*— (1) There shall be provided for the use of all persons employed in the processes specified in the appendix C, separate sanitary convinces and sufficient and suitable bathing facilities, as approved by the Chief Inspector-cum-Facilitator.

(2) A bath register shall be kept containing the names of all persons employed in these processes and an entry of the date on which each person takes a bath.

40. *Entry into vessels.*— (1) Before any person enters, for any purpose except that of rescue, an absorber, boiler culvert, drain, flue, gas purifier, sewer, still, tank, vitriol chamber or other place where there is reason to apprehend the presence of dangerous gas or fumes, a responsible person appointed in writing by the occupier for this purpose, shall personally examine such place and shall certify in writing in a book kept for the purpose either that such place is isolated from every source of such gas or fume and is free from danger, or that it is not to be so isolated and sealed and free from danger. No person shall entry any such place which is certified not to be so isolated and sealed and free from danger unless he is wearing a breathing apparatus, and (where there are no cross stays or obstructions likely to cause entanglement) a lifebelt, the free end of the rope attached to which shall be to left with man outside whose sole duty shall be to keep watch and to draw out wearer if he appears to be affected by gas or fume. The belt and rope shall be so adjusted and worn that the wearer can be drawn up head foremost through any manhole or opening.

(2) A person entering for the purpose of rescue into any such place for which a clearance certificate has not been issued shall wear a breathing apparatus and a life-belt in the manner specified in subparagraph (1) above.

41. *Examination and repair of plant.*— Where poisonous materials are likely to be present the examination and repair of plant and piping shall only be done under the supervision of a competent person,

and after the plant and piping has been thoroughly cleaned and ventilated. When opening vessels and breaking joints in pipe lines, respirators, goggles and protective clothing shall be worn to the extent required by the competent person.

42. *Storage of acid carboys.*— Carboys contained nitric acid or “mixed” acid shall be stored in open-sided sheds detached from other buildings, and places on a flooring of sandstone, bricks or other suitable inorganic materials. A passage way shall be provided and kept free from obstruction between every four rows of such carboys. An ample supply of water shall be available for washing away split acid and all precautions shall be taken to prevent workers being exposed to fumes.

43. *Buildings.*— All buildings and plant shall be sited with due regard to possible dangers from accidental liberation or splashing of corrosive and deleterious liquids, and shall be so designed as to facilitate thorough washing and cleaning. The construction of staging and other parts of buildings shall be carried out with material impervious and resistant to corrosion so far as practicable.

44. *Leakage.*— (1) All plants shall be so designed and constructed as to obviate the escape of corrosive liquid. Where necessary, separate buildings, rooms or protective structures shall be used for the dangerous stages of the process and the buildings shall be so designed as to localise any escape of liquid.

(2) Catch pits, bund walls or other suitable precautions shall be provided to restrict the serious effects of such leakages. Catch pits shall be places below joints in pipelines to prevent danger to workers from such leakage.

(3) Passages and work stations shall not be situated directly below any part of plant where corrosive or deleterious substances and means shall be provided for rendering safe any such escaped corrosive or deleterious substances.

45. *Precautions against escape.*— Adequate precautions shall be taken to prevent the escape of corrosive or deleterious substances and means shall be provided for rendering safe any such escaped corrosive or deleterious substances.

46. *Drainage.*— Adequate drainage shall be provided and shall lead to special treatment tanks where deleterious materials shall be neutralized or otherwise rendered safe before it is discharged into ordinary drains or sewers.

47. *Covering of vessels.*— (1) Every fixed vessel or structure containing any dangerous material, and not so covered as to eliminate all reasonable risk of accidental immersion in it of any portion of the body of a worker, shall be so constructed that there is no foothold on the top or the sides.

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

(3) No plank or gangway shall be places across or inside any such vessel, unless such plank or gangway is at least 45 centimeters wide, and is securely fenced on both sides by rails spaced at 22.5 centimeters apart to a height of at least 90 centimeters or by other equally efficient means.

(4) Where such vessels adjoin and the space between them, clear of any surrounding brick or other work is either less than 45 centimeters in width or is 45 or more centimeters in width, but is not securely fenced barriers shall be so places 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.

48. *Ventilation.*— Adequate ventilation shall be provided and maintained at all times in rooms or buildings where dangerous gas, vapour, fume or dust may be evolved.

49. *Means of escape.*— Adequate ventilation means of escape from rooms or buildings in the event of a leakage of corrosive liquid shall be provided and maintained.

50. *Treatment of personnel.*— (1) In all places where strong acid or any other dangerous corrosive liquids are used, there shall be provided for use in an emergency. -

- (a) adequate and readily accessible means of drenching with cold water the persons and the clothing of persons, who have been splashed with such liquid;
- (b) adequate special arrangements to deal with any person who has been splashed with poisonous material that can be absorbed through the skin; and
- (c) a sufficient number of eye-wash bottles, filled with distilled water or other suitable liquid, kept in boxes or cupboard conveniently situated and clearly indicated by a distinctive sign which shall be visible at all times.

(2) Except where the manipulation of such corrosive liquids is carried on as to prevent risk of personal injury from splashing or otherwise, there shall be provided for those who have to manipulate such liquid sufficient and suitable goggles and gloves or other suitable protection for the eyes and hands. If gloves are provided they shall be collected, examined, and cleansed at the close of the day's work and shall be repaired or renewed when necessary.

51. *Maintenance.*— (1) Before any examination or repairs are carried out on plant or pipe lines, a competent person shall issue a clearance certificate permitting such examination or repairs.

(2) Adequate precautions shall be taken to liberate any pockets of gas or liquid which may have been formed in pipe lines, and which may cause corrosive spray at the point where dismantling takes place.

52. *Washing facilities.*— (1) There shall be provided and maintained in every factory for the use of employed persons adequate and suitable facilities for washing which shall include soap and nail brushes or other suitable means of cleaning and the facilities shall be conveniently accessible and shall be kept in a clean and orderly condition.

(2) If female workers are employed separate washing facilities shall be provided and so enclosed or screened that the interiors are not visible from any place where persons of the other sex work or pass. The entrance to such facilities shall bear conspicuous notice "For Women Only" in the language understood by the majority of the workers and shall also be indicated pictorially.

53. *Mess room facilities.*— In every factory there shall be provided and maintained for the use of those remaining on the premises during the rest intervals, suitable and adequate mess room or canteen accommodation which shall be furnished with sufficient tables and chairs or benches with backrest and where sufficient drinking water is available.

54. *Ambulance room.*— (1) In every factory in which more than 250 persons are employed on the processes to which this Schedule applies, there shall be provided and maintained in good order an ambulance room.

(2) The ambulance room shall be a separate room used only for the purpose of treatment and rest. It shall have a floor space of not less than 9 square meters and smooth, hard and impervious walls and floor, and shall be provided with ample means of natural and artificial lighting. It shall contain all the items shown in appendix D.

(3) Where persons of both sexes are employed arrangement shall be made at the ambulance room for their separate treatment.

(4) The ambulance room shall be placed under the charge of a qualified nurse or other person trained in first-aid, who shall always be readily available during working hours, and shall keep a record of all cases of accidents or sickness treated in the room.

55. *Ambulance van.*— In every factory there shall be provided and maintained in good condition a suitably constructed ambulance van for the purpose or removal of serious cases of accident or sickness, unless arrangements have been made with a hospital or other place in telephonic communication with the factory for obtaining such a carriage immediately when required.

56. *Medical personnel.*— There shall be a recognized Factory Medical Officer in every factory employing upto 150 workers, part time recognized Factory Medical Officer for factory employing above 150 but upto 500 workers and a full time recognized Factory Medical Officer for factory employing above 500 workers.

57. *Medical examination.*— (1) Workers engaged in the manufacture, processing, formulation or use of the following shall be examined in every six months by the authority or the agency as specified in sub-rule (3) of this rule and records maintained.-

- (a) hexaethyl tetraphosphate
- (b) tetra ethyl pyrophosphate;
- (c) O, opdiethyl o-p-nitrophenyl thiophosphate (Perathion);
- (d) Nicotine and nicotine sulphate
- (e) Mercury derivatives;
- (f) Methyl bromide;
- (g) Cyanides
- (h) Arsenical derivatives;
- (i) Chrome process compounds; and
- (j) Nitro or amido process compounds.

(2) A health register containing the names of all persons employed in the process shall be kept in Form XXVIII.

(3) No new person shall be employed without a certificate of fitness granted after examination by the authority or the agency as specified in sub-rule (3) of this rule, who shall make an entry duly signed in the health register.

(4) Every person so employed shall present himself at the appointment for examination as provided in sub-paragraph (3)

(5) The Medical Officer shall have the power to suspend any person employed if he has reason to believe that continuance of such person in such employment shall be dangerous to his health and no person after such suspension shall be employed without written sanction from the Medical Officer and entry to that effect in the health register.

58. *Duties of workers.*— (1) Every person employed shall –

- (a) report to his foreman any defect in any fencing, breathing apparatus, appliance or other requisite provided in pursuance of this Schedule, as soon as he becomes aware of such defect;
- (b) use the articles, appliances or accommodation required by this Schedule for the purpose for which they are provided;
- (c) wear the breathing apparatus and life-belt as required under paragraph 40.

(2) *Every person employed-*

- (a) in a process to which paragraph 37 applies shall wear the protective clothing, footwear, respirators, goggles or gloves provided under paragraph 37 and shall deposit overalls or suits or working clothing so provided, as well as clothing put off during working hours, in the places provided under paragraph 38;
- (b) in processes to which paragraph 39 applies, shall carefully wash the hands and face before partaking of any food or leaving the premises; and
- (c) in any processes to which part II of this Schedule applies, shall use the protective appliances supplied in respect of any process in which he is engaged.

(3) *No person shall –*

- (a) remove any fencing provided in pursuance of paragraph 47 unless duly authorized;
- (b) stand on the edge or on the side of any vessel to which paragraph 47 applies;
- (c) pass or attempt to pass any barrier erected in pursuance of paragraph 47;
- (d) place across or inside any vessel to which paragraph 47 applies, any plank or gangway which does not comply with that paragraph or make use of any such plank or gangway while in such position;
- (e) take a naked light or any lamp or matches or any apparatus for producing a naked light or spark into, or smoke in, any part of the works where there is liability to explosion from inflammable gas, vapour or dust;
- (f) use a metal spade, scraper or pail when cleaning out or removing the residues from any chamber, still, tank or other vessel which has contained sulphuric acid or hydrochloric acid or other substance which may cause evolution of arseniuretted hydrogen; and
- (g) Remove from a first-aid box or cupboard or from the appliance or dressing except for the treatment of injured workers in the premises.

59. *Exemption.*— If the Chief Inspector-cum-Facilitator is satisfied in respect of any factory or any process that, owing to the special conditions or special methods of work, or by reason of the infrequency of the process or for other reasons, all or any of the requirements of this Schedule are not necessary for the protection of persons employed in any factory or process he may by order in writing (which he may in his discretion revoke) exempt any factory or process from all or any of the provisions of this Schedule, subject to such conditions as he may by such order prescribe.

PART II

Applying to the works in Appendix E

60. *Entry into gas tar or coal tar still.*— Before any person enters a gas tar or coal tar still for any purpose except that of rescue, it shall be completely isolated from adjoining tar stills by disconnecting either –

- (a) the pipe leading from the swan neck to the condenser work; or
- (b) the waste gas pipe fixed to the worn-end or received; and

in addition, blank flanges shall be inserted between the disconnected parts and the fitch discharge pipe or cock at the bottom of the still shall be disconnected.

61. *Entry into bleaching power chambers.*— (1) No person shall enter a chamber for the purpose of withdrawing the charge of bleaching powder unless and until –

- (a) the chamber is efficiently ventilated; and

- (b) the air in the chamber has been tested and found to contain not more than 6 grams of free chlorine gas per cubic meter.

(2) A register containing details of all such tests shall be kept in a form approved by the Chief Inspector-cum-Facilitator.

62. *Special precautions for nitro and amido processes.*— In a nitro or amido process —

- (a) if crystallised substances are broken or any liquor agitated by hand, precautions shall be taken to prevent, as far as practicable, the escape of dust or fume into the air or any place in which any person is employed. The handles of all implements used in the operations shall be cleansed daily;
- (b) cartridges shall not be filled by hand but by means of a suitable scope;
- (c) every drying stove shall be efficiently ventilated to the outside air in such a manner that hot air from the stove shall not be drawn into any workroom;
- (d) no person shall enter a stove to remove the contents until a free current of air has been passed through it; and
- (e) every vessel containing nitric or amido derivatives of phenol or of benzene or its homologues shall, if steam is passed into or around it, or if the temperature of the contents be at or above the temperature of boiling water, be covered in such a way that steam or vapour shall be discharged into the open air at a height of not less than 7.6 meters from the ground or the working platform, and at a point from where it cannot be blown back again into the workroom.

63. *Precautions during caustic grinding, etc.*— Every machine used for grinding or crushing caustic shall be enclosed, and where any of the following processes are carried on such as—

- (i) grinding or crushing of caustic;
- (ii) packing of ground caustic
- (iii) grinding, sieving, evaporating or packing in a chrome process and
- (iv) crushing, grinding or mixing of material or cartridge filling in a nitro or amido process.

64. *Cholate manufacture.*— (1) Cholate shall not be crystallised, ground or packed except in a room or place not used for any other purpose, the floor of which room or place shall be cement, or other smooth, impervious and incombustible material, and shall be thoroughly cleansed daily.

(2) Wooden vessels shall not be used for the crystallisation of cholate, or to contain crystallised or ground cholate.

Provided that these requirements shall not prohibit the packing of cholate for sale into wooden casks or other wooden vessels.

65. *Restrictions on the employment of pregnant women, lactating mother and adolescent persons.*—

(1) Pregnant women, lactating mother and persons under 18 years of age shall not be employed in any process in which hydrofluoric acid fumes or ammoniacal vapours are given off or in any of the following operations:—

- (a) Evaporation of brine in open pans;
- (b) Stoving of salt;
- (c) Work at a furnace where the treatment of zinc ores is carried on; and
- (d) The cleansing of workroom where the process mentioned in (c) is carried on.

(2) No pregnant women, lactating mother and persons under 18 years of age shall be employed in a chrome process or in a nitro or amido process or in a process in which the following materials are used or where the vapour of such materials is given off namely :-

- (a) Carbon bisulphide
- (b) Chlorides of sulphur;
- (c) Benzene
- (d) Carbon tetrachloride;
- (e) Trichloro-ethylene;
- (f) Any carbon chlorine compound; and
- (g) Any mixture containing any of such materials.

APPENDIX A

Any works or that part of works in which-

- (a) the manufacture or recovery of any of the following is carried on namely: -
 - (i) carbonates, chromates, chlorate, oxides or hydroxide of potassium, sodium, iron alluminium, cobalt, nickel, arsenic, antimony, zinc or magnesium;
 - (ii) ammonia and the hydroxide and salts of ammonium;
 - (iii) sulphurous, sulphuric, nitric, hydrochloric, hydriodic, hydrosulphuric, boric, phosphoric, oxalic, arsenious, arsenic, lactic, acetic, tartaric or citric acids and their metallic or organic salts; and
 - (iv) cyanogen compounds;
- (b) a wet process is carried on-
 - (i) for the extraction of metal from an ore or from any by-product or residual material; or
 - (ii) in which electrical energy is used in any process of chemical manufacture.
- (c) alkali waste or the drainage therefrom is subjected to any chemical process for the recovery of surplus, or for the utilisation of any constituent of such waste or drainage;
- (d) carbon bisulphide is made or hydrogen sulphide is evolved by the decomposition of metallic sulphides or hydrogen sulphide is used in the production of such sulphides.
- (e) Bleaching powder is manufactured or chlorine gas is made or is used in any process of chemical manufacture;
- (f) (i) gas tar or coal tar or any compound product or residue of such tars is distilled or is used in the chemical manufacture.
- (ii) synthetic colouring matters or their intermediates are made;
- (g) refining of crude shale oil or any process incidental thereto is carried out;
- (h) nitro acid is used in the manufacture of nitro compounds.
- (i) Explosives are made with the use of nitro compounds.
- (j) Phosgene (carbonyl chloride) is manufactured or is used in the process of chemical manufacture; and

- (k) Aliphatic or aromatic compounds or their derivatives or substituted derivatives are manufactured or recovered.

APPENDIX B

1. A nitro or amido process.
2. Grinding raw materials in a chrome process.
3. The crystal department and the packing room in a chrome process.
4. Packing in a chrome process.
5. Any room or place in which cholrate is crystallised, ground or packed.
6. Any room in which caustic is ground or crushed by machinery.
7. Bleaching powder chambers, or in packing charges drawn from such chambers.
8. Drawings off of molten sulphur from sulphur pots in the process of carbon disulphide manufacture.

APPENDIX C

1. A nitro or amido process.
2. The crystal department and the packing room in a chrome process.
3. The process of distilling gas or coal tar (other than blast furnace tar) and any process of chemical manufacture in which such tar is used.

APPENDIX D

1. A glazed sink with hot and cold water always available.
2. A table with a smooth top.
3. Means for sterilizing instruments.
4. A couch
5. A stretcher.
6. Two buckets or containers with close-fitting lids.
7. Two rubber hot water bags.
8. A kettle and spirit stove or others suitable means of boiling water.
9. Twelve plain wooden splints 900 m x 100 m x 6 m.
10. Twelve plain wooden splints 350 m x 75 m x 6 m.
11. Six plain wooden splints 250 m x 50 m x 12 m.
12. Three wooden blankets.
13. One pair artery forceps.
14. Two medium size sponge
15. Three hand towels
16. Two kidney trays.
17. Four soaps.
18. Two glass tumblers and two wine glasses.

19. Two clinical thermometers.
20. Graduated measuring glass with teaspoon.
21. One eye bath.
22. One bottle (900 gms.) carbolic lotion 1 in 20
23. Two chairs.
24. One screen.
25. One electric hand torch.
26. An adequate supply of anti-tetanus serum.
27. Two first-aid boxes, each containing.
 - (a) twenty-four small sterilized dressings;
 - (b) twelve medium size sterilized dressings;
 - (c) twelve large size sterilized dressings;
 - (d) twelve large size sterilized dressings;
 - (e) twelve half-ounce packets of sterilized cotton;
 - (f) one pair of scissors;
 - (g) two one-ounce bottles of potassium permanganate crystals;
 - (h) one four-ounce bottle containing a two percent alcoholic solution of iodine;
 - (i) one four-ounce bottle of salt volatile having the done and mode of administration indicated on the label; and
 - (j) one copy of the first-aid leaflet
28. Any other medicine or instruments advised by the Medical Officer appointed under the Code or recognized Factory Medical Officer

APPENDIX E

1. Any works or that part of works in which-
 - (a) caustic pots are used;
 - (b) cholrate or bleaching powder is manufactured;
 - (c) (i) gas tar or coal tar is distilled or is used in any process of chemical manufacture.
 - (ii) a nitro or amido process is carried on;
 - (iii) a chrome process is carried on;
 - (d) crude shale oil is refined or processes incidental thereto are carried on;
 - (e) nitric acid is used in the manufacture of nitric compound.
 - (f) The evaporation of brine in open pans and the stoving of salt are carried on;
 - (g) The manufacture of recovery of hydrofluoric acid or any of its salts is carried on.
2. Work at a furnace where the treatment of zinc ores is carried on.

SCHEDULE XIII

Manufacture of articles from refractory materials.

1. *Application and exemption.*— This schedule shall apply to the following processes:-

- (a) handling, moving, breaking, crushing, grinding or sieving of any refractory materials, containing not less than 25 per cent total silica for the purpose of manufacture-
 - (i) of articles used in the constructions of furnaces and flues;
 - (ii) of crucibles; and
 - (iii) of compositions or other materials used in the preparation of moulds in which metals are cast; or
- (b) any process in the manufacture of refractory bricks as hereinafter defined:

Provided that nothing in this Schedule shall apply-

- (i) to handling, moving, mixing or sieving of natural sand; or
- (ii) to the manipulations of rotten rock in the preparations of moulds, used in metal foundries:

Provided further that if the Chief Inspector-cum-Facilitator is satisfied in respect of any factory or part thereof that owing to the special conditions of work or otherwise, that any of the requirements of this Schedule can be suspended or relaxed without and danger to the health of the person employed therein, he may be an order in writing grant such suspension or relaxation for such period and no such conditions as he may think fit. Any such order may be revoked at any time.

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

- (a) “refractory material” means any refractory material containing not less than 25 per cent total silica;
- (b) “refractory brick” means any brick or article composed of refractory material and containing not less than 25 per cent total silica; and
- (c) “efficient exhaust draught” means localised ventilation by mechanical means for the removal of dust so as far as to prevent dust from escaping into the air of any place in which work is carried on. No draught shall be deemed to be efficient which fails to remove the dust produced at the point where such dust originates.

3. *Refractory material not to be broken.*— No refractory material shall be broken in pieces by manual labour unless the process is carried out in the open air:

Provided that where it is not practicable to carry out this process in open air, the process shall be carried out under an efficient exhaust draught.

4. *Crushing or grinding of refractory material.*— No refractory material, unless it is so wet that dust will not be produced, shall be crushed or ground in a stone crushing or grinding machines unless such machine is provided with.

- (a) an efficient exhaust draught and efficient dust collecting appliances; or
- (b) an efficient water or steam spray:

Provided that every grinding machine wherein any refractory material is ground in dry state, shall be, totally enclosed and connected to a mechanical exhaust system so as to prevent effectively any escape of dust outside the casing of the machine by maintaining a pressure below the atmospheric pressure within the casing of the machine.

The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided. Any defect disclosed by such examination and test shall be rectified as soon as practicable. A report containing particulars of such examination and test shall be maintained in Form XXXV.

Provided further that all processes of crushing and grinding shall be effectively isolated from other processes.

5. *Refractory material handling equipment to be enclosed.*— All chutes, conveyors, elevators, screens, sieves and mixers used for manipulating refractory material shall, unless the material is so wet that dust will not be produced, be enclosed and be provided with an efficient exhaust draught.

6. *Precautions material handling refractory material.*— No refractory material so dry as to produce dust shall. -

- (a) be loaded into any wagon or other receptacle for transport unless it has been placed in a suitable dustproof container so damped as to preclude dust;
- (b) be unloaded from any wagon or other receptacle for transport unless it has been so dampened as to preclude dust or unless the work is done work an efficient exhaust draught; or
- (c) be shovelled or raked or otherwise manipulated by means of hand tools in any manufacturing process unless it has been so dampened as to preclude dust or unless the work is done under an efficient exhaust draught:

Provided that sub-paragraph (b) of this paragraph shall not apply to refractory material in the form of rock or pebbles before it is manipulated in any manufacturing process.

7. *Maintenance of floors.*— (1) The floors of all places where refractory bricks are dried, other than the floors of tunnel ovens or chambers driers not normally entered by persons employed shall, after each lot of refractory bricks has been removed, be carefully cleaned of all debris and the part being cleaned shall be kept damp while the cleaning is being done.

(2) There shall be provided in every such place a constant supply of water laid on under adequate pressure with sufficient connections and a flexible branch pipe and sprinkler to enable water to be supplied direct to every part of the floor.

8. *Prohibition of use of drying stove.*— No drying stove in which refractory bricks are baked by fires before being placed in the kilns, shall be used.

9. *Cleaning of floor and suppression of refractory dust.*— The surface of every floor or place where persons are liable to pass shall be cleaned of debris of refractory material once at least during each daily period of employment or where shifts are worked, one during each shift. Such debris unless it is immediately required for use in the processes, shall be effectively dampened and either be placed in covered receptacles, or be otherwise stored in such a manner as to prevent the escape of dust into the air in or near to any place where any person is employed.

10. *Suppression of refractory dust while drying.*— Where plates are used, whether portable or forming part of the floor, on which refractory bricks are dried, such plates shall be freed from adherent material only by a wet method or by such other method or by such other method as will prevent the escape of dust into the air.

11. *Prohibition of use of refractory dust for moulding.*— The dust or powder of refractory materials shall not be used for sprinkling the moulds in refractory brickmaking:

Provided that nothing in this paragraph shall be deemed to prevent the use of natural sand for the purpose of sprinkling the moulds.

12. *Workers not to work in refractory dust atmosphere.*— No worker shall be allowed to work on any dust process or at any place where dust of any refractory materials is present in the atmosphere:

Provided that in an emergency a worker may be allowed to work at such process or place if he wears a suitable and efficient dust mask or breathing apparatus.

13. *Medical examination.*— (1) Every worker employed on any day of the processes specified in sub-paragraphs (a) and (b) of paragraph 1 shall be medically examined by the authority or the agency as specified in sub-rule (3) of this rule before employment on any of the aforesaid process and at an interval not exceeding six months thereafter.

(2) Subject to sub-paragraph (3), an X-ray examination of the chest of every worker referred to in sub-paragraph (1) shall be carried on-

- (a) if he is already employment on the date of coming into force of the sub-paragraph, within six months of such date and at an interval of every three years thereafter;
- (b) if he is employed after such date within one month of the date of his employment and at an interval of every three years thereafter;

and the result such X-ray examination shall be produced before the Medical Officer within a month of the examinations.

(3) If the Medical Officer, during the course of medical examination of any worker under sub-paragraph (1) has reason to suspect onset of any chest disease, he may direct the manager or the occupier to get an X-ray plate before him within a specified time and on receipt is such direction, the manager or the occupier as the case may be, shall carry out the direction.

(4) The authority or the agency as specified in sub-rule (3) of this rule shall grant to each worker examined, a certificate specifying therein whether or not the worker was considered fit to be employed on any of the aforesaid processes.

(5) The manager shall maintain a register in which the findings and recommendations of the Medical Officer in respect of every worker and in respect of every medical examination duly signed by the Medical Officer.

(6) A worker not declared fit shall not be employed on any of the aforesaid processes and he shall be employed on only such other examination or treatment as may be directed by the Medical Officer.

(7) No fees shall be charged from any worker for the medical examination and it shall be the responsibility of the occupier and the manager to comply with the provision of this Schedule.

14. *Time limit for compliance in respect of existing plants.*— In case any existing plant or machinery which needs alteration, modification or replacement or in case of any new plant to be installed, is required to comply with the requirements of this Schedule, such alteration, modification, replacement or installations of the plant of machinery shall be carried on within a period not exceeding six months from the date of publication of this Schedule:

Provided that the Chief Inspector-cum-Facilitator in consideration of special and exceptional circumstances by an order in writing any extend this period to such further period as he may think fit.

SCHEDULE XIV

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 factorys in which any of the following processes are carried on:-

- (a) breaking, crushing, disintegrating, opening, grinding, mixture 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 process;
- (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 or cement goods;
- (g) application of asbestos by spray method;
- (h) sawing, grinding, turning, abrading and polishing, in the dry state, of articles composed wholly or partly of asbestos; and
- (i) cleaning of any room, vessel, chambers, fixture or appliances for the asbestos dust;

Provided that if the Chief Inspector-cum-Facilitator is satisfied that in respect of any factory or part thereof by reason of the restricted use of asbestos or the method of working, or occasional nature of work, or otherwise, all or any the provision of this Schedule can be suspended or relaxed without danger to the health of the persons employed therein, he may be grant suspension or relaxation in writing under such conditions as he may think fit. Any such certificate may be revoked at any time.

2. *Definitions.*— For the purposes of this Schedule—

- (a) “asbestos” means any fibrous silicate mineral, and any admixture containing any such mineral, whether crude, crushed or opened;
- (b) “asbestos textiles” means yarn or cloth composed of asbestos or asbestos mixed with any other material;
- (c) “preparing” means crushing, disintegrating and any other process in or incidental to the opening of asbestos;
- (d) “approved” means approved for the time being in writing by the Chief Inspector-cum-Facilitator; and
- (e) “breathing apparatus” means a helmet or face piece with necessary connection by mean of which a person using it can breathe air free from dust, or any other approved apparatus of like nature.

3. *Exhaust draught.*— (1) An exhaust draught effected by mechanical means which prevents the escape of asbestos dust into the air of any room in which person work, shall be provided and maintained for—

- (a) manufacturing and conveying machinery namely: -
 - (i) preparing, grinding or dry mixing machines;
 - (ii) carding, card waste-end, ring spinning machines and looms;
 - (iii) machines or other plant fed with asbestos; and
 - (iv) machines used for the sewing, grinding, turning, abrading or polishing, in the dry state, of articles composed wholly or partly of asbestos;
- (b) cleaning, and grinding or the cylinders or other parts of a carding machine;
- (c) chambers, hoppers or other structures into which loose asbestos is delivered or passed;

- (d) work-benches for asbestos waste sorting or for other manipulation of asbestos by hand;
- (e) workplaces at which the filling or emptying of sacks, skips or other portable containers is carried on and weighing or other process incidental thereto is effected by hand; and
- (f) sack cleaning machines;

provided that this clause shall not apply-

- (i) to a machine or other plant which does not give rise to asbestos dust, or is so enclosed as to prevent escape of asbestos dust into the air of any room in which persons works; or
- (ii) where the asbestos is so wet or so treated with greases or other material as to prevent the evolution of dust; or
- (iii) to the making or repairing of insulating mattresses or;
- (iv) to mixing or blending by hand of asbestos.

(2) (a) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(b) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(c) A report containing particulars of such examination and test shall be maintained in Form XXXV.

4. *Mixing or blending.*— (1) Mixing or blending by hand of asbestos shall not be carried on except with an exhaust draught effected by mechanical means so designed and maintained as to ensure as far as practicable the suppression of dust during the processes.

(2) In premises which are constructed or reconstructed after the date on which this Schedule comes into force, the mixing or blending by hand of asbestos shall not be done except in a special room or place in which no other work is ordinarily carried on.

(3) (a) The making or repairing of insulating mattresses composed wholly or partly of asbestos shall not be carried on in any room in which any other work is done.

(b) In every room in which the making and inlet ventilation in accordance with arrangements to be approved in each case shall be provided and maintained;

- (i) adequate exhaust and inlet ventilation in accordance with arrangements to be approved in each case shall be provided and maintained.
- (ii) no person other than those engaged in filling, beating or levelling shall be present whilst such processes are being carried on and work shall not be resumed in the room after filling, beating or levelling for at least ten minutes.
- (iii) the floors and benches shall be kept dampened so as to prevent dust arising therefrom effectively; and
- (iv) the covers shall be effectively dampened immediately after being cut out and in the case of fibre filled mattresses shall be kept damp whilst filling, beating or levelling is being carried on.

(4) (a) Storage chambers or bins for loose asbestos shall, in the case of premises constructed or reconstructed after the date on which this Schedule comes into force, be effectively separated from any workroom and, in the case of other premises be effectively separated from any workroom in which the asbestos is not required for the purpose carried on in the room.

(b) Chambers or apparatus for dust settling and filtering shall not be allowed in any workroom.

- (c) Arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air of any workroom.

(5) All machinery used in preparing, grinding or asbestos carding, card roller cleaning and grinding and sacks cleaning and all cards waste-end machines, lattices, elevators, chutes and conveyors shall be so constructed and maintained that dust or debris containing asbestos cannot escape from any part thereof, other than dust removed by air exhaust draught provided in accordance with paragraph 3 of this Schedule.

- (6) (a) Cleaning by hand of the cylinders (including the doffer cylinder) of a carding machine, shall not be done whilst any person other than those performing or assisting at the cleaning is present.

(b) After six months from the date on which this Schedule comes into force, such cleaning as aforesaid shall not be done by means of hand strickles or other hand tools:

Provided that the Inspector-cum-Facilitator or the Chief Inspector-cum-Facilitator may direct such other measures and precautions to be taken as may be considered necessary for safeguarding the health of the workers employed on processes and work specified in paragraph 4.

5. *Maintenance of floors and work places.*— (1) In every room in which any of the requirements of this Schedule apply-

- (a) the floors, work-benches and plant shall be kept in a 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) Every room as aforesaid shall be adequately lighted.

6. *Asbestos sacks not to be cleaned by hand.*— (1) A sack which has contained asbestos shall not be cleaned by hand beating but by a machine, complying with paragraph 3 and sub-paragraph (5) of paragraph 4.

(2) All sacks used as containers for the purpose of transport of asbestos within the factory shall be constructed of impermeable material and shall be kept in good repair.

7. *Testing of ventilating plant.*— (1) All ventilating plant used for the purpose of extracting or suppressing dust as required by this Schedule shall at least once in every six months be thoroughly examined and tested by a competent person and any defect disclosed by such examination and test shall be rectified forthwith.

(2) A report containing particulars of such examination and test shall be maintained in Form XXXV and shall be available for inspection by an Inspector-cum-Facilitator.

8. *Provision of breathing apparatus.*— A breathing apparatus shall be provided for every person employed-

- a) in chambers containing losses asbestos;
- b) in cleaning of dust settling or filtering chambers or apparatus;
- c) in cleaning the cylinders, including the doffer cylinders, of other parts of the carding machine by means of hand-strickles; and
- d) in filling, beating or leveling in the manufacture or repair of insulating mattresses.

9. *Protective equipment's.*— There shall be provided and maintained for the use of all persons employed in the cleaning of dust settling and filtering chambers, tunnels and ducts, suitable overalls and head coverings.

10. *Prohibition of employment of pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or person who is below 18 years shall be employed in or in connection with the manufacture of insulating mattresses, in mixing or blending of asbestos by hand, in sack cleaning, in chambers or apparatus for dust settling or filtering, in chambers containing loose asbestos, or in stripping or grinding the cylinders including the doffer cylinders or other parts of a carding machine.

11. *Medical examination.*— (1) No worker shall be employed in any factory on any of the processes specified in the paragraph 1, unless he has been medically examined by the authority or the agency as specified in sub-rule (3) of this rule and has been declared fit and has been granted a certificate of fitness in Form XXXVI.

(2) Every worker employed on any of the aforesaid processes on the date on which this Schedule comes into force shall be medically examined by the authority or the agency as specified in sub-rule (3) of this rule within three months of the said date.

(3) Every worker employed on any of the aforesaid processes on the date on which this Schedule comes into force, shall be radiologically examined by a qualified radiologist at the cost of the occupier and the standard size chest X-ray plate shall be submitted to the Medical Officer for medical examination within three months of the said date.

(4) Every worker employed on any of the aforesaid processes shall be medically examined by the authority or the agency as specified in sub-rule (3) of this rule at intervals of six months after the first medical examination conducted under sub-paragraphs (1) and (2) and radiologically examined at an interval of three years after the first radiological examination conducted under sub-paragraphs (1), (2) and (3):

Provided that if at any time the Medical Officer is of the opinion that any person employed in the said processes is required to be radiologically examined by a qualified Radiologist, he may direct the occupier to arrange for such examination at his cost and then to submit the standard size X-ray plate of the worker to the Medical Officer.

(5) A worker already in employment had declared unfit by the Medical Officer shall not be allowed to work on any of the processes specified in paragraph 1, unless he has been re-examined medically and radiological, and had been certified to be fit to work on the said process again.

(6) A worker declared to be unfit to work on any of the aforesaid processes, any be employed on such other work or process as may be considered safe and as may be advised by the Medical Officer:

Provided that if the Medical Officer declares that a worker has been completely incapacitated and he is not fit to be employed on any process, such worker shall not be allowed to continue to work on any work or process.

(7) The Medical Officer may direct that a worker may be subjected to X-ray or he may be subjected to further examination, clinical, pathological or otherwise or that he should undergo a specified treatment, and it shall be the responsibility of the occupier and manager to arrange for the specified examination and/or treatment and to bear all expenses thereof or in connection therewith.

(8) The authority or the agency as specified in sub-rule (3) of this rule shall, after each examination grant a certificate in Form XXXVI.

(9) The manager shall maintain all the certificates in a proper register of file and shall produce all the certificates before an Inspector-cum-Facilitator whenever demanded.

(10) The manager shall maintain the details of every medical examination in Form XXVIII and the register shall be produced before an Inspector-cum-Facilitator whenever demanded.

SCHEDULE XV

Handling or manipulation of corrosive substances

1. *Definitions.*— For the purpose of this Schedule –

- (a) “corrosive operation” means an operation of manufacturing, storing, handling, processing, packing or using any corrosive substance in a factory; and
- (b) “corrosive substance” includes sulphuric acid, nitric acid, hydrochloric acid, hydrofluoric acid, carboric acid, phosphoric acid, liquid chlorine, liquid bromine, ammonia or anhydrous liquid ammonia, sodium hydroxide or potassium hydroxide or mixtures thereof, or any other substance which the Government may by notification specify to be a corrosive substance.

2. *Flooring.*— The floor of every workroom of an factory in which corrosive operations is carried on shall be made of impervious, corrosion and fire resistant material and shall be so constructed as to prevent collection of any corrosive substance. The surface of such flooring shall be smooth and cleaned as often as necessary and maintain in a sound condition.

3. *Protective equipment.*— (1) The occupier shall provide for the use of all persons employed in any corrosive operation suitable protective wear for hands and feet, suitable aprons, face shields, chemical safety goggles and suitable respirators. The equipment's shall be maintained in good order and shall be kept in clean and hygienic condition by disinfecting them and also suitably treating them to remove the ill effects of any absorbed chemicals. The occupier shall also provide suitable protective creams and other preparations of the workers wherever necessary.

(2) The protective equipment and preparations provided shall be used by the persons employed in any corrosive operation.

4. *Water facilities.*— Where any corrosive operation is carried on, there shall be provided as close to the place of such operation as possible, a source of clean water at a height of 210 centimeters from a pipe of 2.5 centimeters diameter and fitted with a quick acting valve so that in case of injury to the worker by any corrosive substances, the injured part can be thoroughly flooded with water. Whenever necessary, in order to ensure continuous water supply, a storage tank having a minimum length, breadth and height of 210 centimeters and 60 centimeters respectively or such dimensions as are approved by the Chief Inspector places at floor level shall be provided as the source of clean water.

5. *Cautionary notice.*— A cautionary notice in the following form and printed in the language which majority of the workers employed understand, shall be displayed prominently close to the place where a corrosive operation is carried out and where it can be easily and conveniently read by the workers. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice so displayed.

CAUTIONARY NOTICE

DANGER

Corrosive substances cause severe burns and vapours thereof may be extremely hazardous. Use protective wears.

Incase of contact with corrosive substances immediately flood the affected part of body with plenty of water for at least 15 minutes. Call for medical attention quickly.

6. *Transport.*— (1) Corrosive substances shall not be filled, moved or carried except in containers shall when they are to be transported, the containers shall be placed in crated of sound construction and of sufficient strength.

(2) A container with a capacity of 10.0 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 cart is used for the purpose.

(3) Containers for corrosive substances shall be clearly labelled as such.

7. *Devices for handling corrosive substances.*— (1) Suitable tilting or lifting devices shall be used for emptying jars, carboys and other containers or corrosive substances.

(2) Corrosive substances 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 productions 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 to enter any confined space shall be taken to ensure the worker's safety.

(3) Wherever possible, before repairs are undertaken or any part of equipment's 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 and cyanide salts as the accidental mixing thereof may cause a reaction which is either violent or it may give 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 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 the defects so found out shall be rectified forthwith. A register shall be maintained of every such examination made and shall be produced before the Inspector-cum-Facilitator whenever required.

11. *Fire extinguishers and firefighting equipment.*— An adequate number of suitable types of fire extinguishers or other firefighting equipment's, depending on the nature of chemicals stored, shall be provided. Such extinguishers or other equipment's shall be regularly tested and refilled. Clear instructions as to how the extinguishers or other equipment should be used, shall be printed in the language which majority of the workers employed understand and shall be affixed near each extinguisher or other equipment. Sufficient number of workers shall be trained in firefighting methods.

12. *Exemption.*— If on an application made by the manager of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances, or the frequency of the process or for any other reason to be recorded by him in writing, all or any of the provisions of this Schedule are not considered necessary for the protection of the persons employed therein, he may by a certificate in writing, which he may at any time revoke, exempt the factory from such of the provisions and subject to such conditions as he may specify therein.

SCHEDULE XVI

Processing of Cashewnut

1. *Application.*— This Schedule shall apply to all factories in which roasting, scrubbing and shelling of cashewnuts or extracting oil from cashewnuts or cashewnut shells are carried on.

2. *Prohibition of employment of pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or person below 18 years shall be employed in any of the processes specified in paragraph 1 except in shelling of roasted cashewnuts.

3. *Protective clothing and equipment.*— The occupier shall provide and maintain for the use of all persons employed in roasting and scrubbing of cashewnuts or extracting oil from cashewnuts or cashewnut shell. -

- (a) suitable rubber or washable leather gloves;
- (b) suitable type of impervious aprons with sleeves to cover body down to knees and shoulders; and
- (c) suitable type of footwear to afford protection to feet and legs against cashewnut oil; and
- (d) for the workers employed in cashewnut shelling, sufficient quantity of kaolin and coconut oil; and
- (f) any other material or equipment which the Chief Inspector-cum-Facilitator may deem to be necessary for the protection of the workers.

4. *Use of protective clothing and equipment.*— every person employed in processes specified in paragraph 1 shall make use of protective clothing and equipment supplied and arrangements shall be made by the occupier to supervise its use, maintenance and cleanliness.

5. *Disposal of shells, ashes, or oil of cashewnut.*— (1) Shells, ashes or oil of cashewnut shall not be stored in any room in which workers are employed and shall be removed at least twice a day to any pit or enclosed place in the case of shells and ashes and to closed containers kept in a separate room in the case of oil.

(2) No worker shall be allowed to handle shells or oil of cashewnuts without using the protective clothing or equipment provided under paragraph 3 above.

6. *Floors of workrooms.*— The floor of every workroom in which processes specified in paragraph 1 are carried in shall be cleaned daily, and spillage of any cashewnut oil in any workroom shall be washed with soap and cleaned immediately.

7. *Seating accommodation.*— Workers engaged in shelling of cashewnuts shall be provided with adequate seats or work benches which shall be cleaned daily.

8. *Restrooms.*— (1) There shall be provided and maintained for the use of all persons employed in processes specified in paragraph 1, a suitable restroom furnished with sufficient tables and chairs or benches.

(2) Separate lockers shall be provided where food, etc, shall be stored by workers before it is consumed in the restroom.

9. *Food, drinks, etc. prohibited in workrooms.*— No food, drink, pan, supari or tobacco shall be brought or consumed by any worker in any room in which processes specified in paragraph 1 are carried out and no person shall remain in any such room during intervals for meals or rest.

10. *Washing facilities.*— Where roasting, scrubbing and shelling of cashewnut or extracting oil for cashewnuts or cashewnut shells is carried on, there shall be provided and maintained in a clean state and good repair washing facilities, with a sufficient supply of soap, coconut oil, nail brushes and towels at the

scale of one tap or stand pipe for every 10 workers, and the taps or stand pipes shall be spaced at a distance not less than 1.2 metres apart.

11. *Time allowed for washing.*— Before each meal and before the end of the day's work, at least ten minutes, in addition to the regular meal times, shall be allowed for washing, to each person employed in processes specified in paragraph 1.

12. *Smoke or gas produced by roasting cashewnuts.*— Where smoke or gas is produced in the operation of roasting, provision shall be made for removing the smoke or gas through a chimney of sufficient height and capacity or by such other arrangements, as may be necessary to prevent the gas or smoke escaping into the air or any place in which workers are employed.

13. *Storage of protective equipment.*— A suitable room or a portion of the factory suitably partitioned off, shall be provided exclusively for the storage of all the protective equipment supplied to the workers and no such equipment shall be stored in any place other than the room or places so provided.

14. *Medical examination.*— (1) Every person employed in processes specified in paragraph 1 shall be examined by the authority or the agency as specified in sub-rule (3) of this rule once in every six months, or at such other intervals as may be specified in writing by the Chief Inspector-cum-Facilitator on a day of which due notice shall be given to all concerned.

(2) Every person employed shall present himself at the appointed time for examination by the authority or the agency as specified in sub-rule (3) of this rule as provided in sub-paragraph (1).

(3) A health register in Form XXVIII containing the names of all persons employed in the process specified in paragraph 1 shall be kept.

(4) The authority or the agency as specified in sub-rule (3) of this rule shall record the results of the examination against the name of each worker in the health register.

(5) No person whose services have been suspended on health grounds shall be employed in any process specified in paragraph 1, without the written sanction from the Medical Officer duly entered in the health register.

(6) The occupier shall appoint a person trained in first aid who shall inspect daily the hands and feet of the persons employed in processes specified in paragraph 1. The occupier shall keep a record of such inspections in a register in a form approved by the Chief Inspector-cum-Facilitator and any cases of blistering shall be brought to the notice of the Medical Officer who shall direct them for such treatment as may deem to be necessary.

(7) The first-aid box shall also contain Burrow's solution 1 to 20 and aqueous solution tannic acid 10% for treatment of cases of dermatitis.

10. *Exemption.* - The Chief Inspector-cum-Facilitator may grant exemption from the operation of any of these provisions if he is satisfied that their observance is not necessary for safeguarding the health of the workers.

SCHEDULE XVII

Compression of oxygen and hydrogen produced by electrolysis of water or by steam iron process.

1. *Definitions.*— For the purposes of this Schedule “compression of oxygen and hydrogen” means any process by which oxygen or hydrogen is manufactured or evolved by electrolytic process or by steam iron process.

2. *Applications.*— This Schedule applies in respect of factories or any part thereof in which the process of compression of oxygen and hydrogen is carried on.

3. *Situation of Electrolyser Plant room etc.*— The room in which electrolyser plant is installed shall be separate from the plant for storing and compressing oxygen and hydrogen. The room in which electric generator and the distribution panel are installed shall not communicate with any other room in which any process is carried on.

4. *Testing of purity.*— (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 gasholder inlet; and
- (c) At the suction end of the compressor:

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

(2) The purity figures obtained as a result of the test shall be entered in a register and signed by the persons carrying out such tests.

5. *Restriction as to the compression.*— The oxygen and hydrogen gases shall not be compressed if their purity as determined under paragraph 4 above falls below 98% at any time.

6. *Limit switch for gasholder.*— The bell of any gasholder shall not be permitted to go within 30 centimeters of its lowest position when empty and a limit switch shall be fitted to the gas holder in such manner as to switch off the compressed motor when the limit is reached.

7. *Provisions of negative pressure switch.*— In addition to the limit switch in the gasholder, a sensitive negative pressure switch shall be provided in or adjacent to the suction main for hydrogen, close to the gasholder and between the gasholder and the hydrogen compressor, to switch off the compressor motor in the event of the gasholder being emptied to such an extent as to cause vacuum.

8. *Purity of raw material.*— The water and caustic soda used for making lye shall be chemically pure within pharmaceutical limits.

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

10. *Colouring of gas pipes.*— Oxygen and hydrogen gas pipes shall be painted with distinguishing colours and in the event of leakage at the joint of hydrogen gas pipe, the pipe, and storage system after repairs and reconnection carried out as per paragraph 13 of this Schedule and in accordance with the provisions of rule 112 shall be purged of all air and gases using a suitable inert gas before drawing in hydrogen gas. Before drawing in hydrogen gas in any new or existing system which was not in use every pipe, gas-holder or compressed gas vessel in the said system shall be purged of all air and gases by using a suitable inert gas.

11. *Use of flameproof fittings.*— All electrical wiring and apparatus, wherever hydrogen gas is generated, compressed, transferred or stored, 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 a warning notices shall be exhibited in prominent places to that effect.

12. *Prohibition of hot work.*— No part of the electrolyser plant or the gasholder or compressor shall be subjected to welding, brazing, soldering or cutting until steps have been taken to remove any explosive substance shall be allowed to enter that part until the metal has cooled sufficiently to prevent risk of explosion.

13. *Repair, etc. to be done under supervision.*— No work of operation, repair or maintenance shall be undertaken except under the direct supervision of a person who, by his training, experience and knowledge of the necessary precautions against risk of explosion is competent of supervise such work, No electric generator after erection or repairs shall be switched on to the electrolyser unless the same is certified by 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 9.

14. *Examination of the plant.*— Every part of the electrolyser plant and the gas holders and compressor shall be inspected, checked and overhauled in accordance with a regular schedule maintained by the Manager complying with the paragraph 13. Every defect noticed shall be rectified forthwith.

SCHEDULE XVIII

Process of extracting oils and fats from vegetable 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 inflammable liquid such as pentane, hexane and heptane used for the recovery of vegetable oils;
- (c) “flameproof enclosure” as applied to electrical machinery or apparatus means an enclosure that will withstand, when covers or other access doors and properly secured, an internal explosion of the inflammable 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 inflammable gas or vapour;
- (d) “competent person” for the purpose of this Schedule means a person possessing Degree in Mechanical / Chemical engineering or technology from a recognized University with knowledge of oils and fats and with a minimum experience of five years in a solvent extraction plant, as may be approved by the Chief Inspector-cum-Facilitator.

Provided further that the Government may accept any other qualifications which in its opinion 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 meters 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 bound by the fencing.

(4) Boiler houses and other buildings where open flame processes are carried on shall be located at least 30 meters from the solvent extraction point.

(5) If godown and preparatory process are at a distance of less than 30 meters from the solvent extraction plant, these shall be at least 15 metres distance 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 source of ignition.

3. *Electrical installations.*— (1) All electrical motors and wiring and other electrical equipment's installed or housed in solvent 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 energized 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 be 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's 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 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 he is 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 inflammable 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 which is housing such a 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 conveyor through a hopper and a magnetic separator shall be provided to remove any pieces of iron during its transfer.

9. *Venting.*— (1) Tanks containing solvents shall be protected with emergency venting to relieve excessive internal pressure in the event of fire.

(2) All emergency relief vents shall terminate at least 6 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 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 changed per hour.

12. *Housekeeping.*— (1) Solvent shall not be stored in an area covered by solvent extraction plant except in small quantities which shall be stored in approved safety cans.

(2) Waste materials such as oily rags, other wastes and absorbents used to wipe off solvent and paints and oils shall be deposited in approved containers and removed from the premises at least once a day.

(3) Space within the solvent extraction plant and within 15 meters from the plant shall be kept free from any combustible materials and any spills of oil or solvent, shall be cleaned up immediately.

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 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 before opening the same for cleaning or repairs and before introducing solvent therein 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 pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or person below 18 years 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 reasons, 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 revoke at any time, exempt such factory from all or any of such provisions subject to such conditions as he may specify therein.

SCHEDULE XIX

Manufacture or manipulation of manganese and its compounds

1. *Application.*— This Schedule shall apply to every factory in which or in any part of which any manganese process is carried on.

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

- (a) “manganese process” means processing, manufacture or manipulation of manganese or any compound of manganese or any ore or any mixture containing manganese;
- (b) “first employment” means first employment in any manganese process and includes also re-employment in any manganese process following any cessation of employment for a continuous period exceeding 3 calendar months;
- (c) “manipulation” means mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping or otherwise handling of manganese or a compound of manganese, or any ore or any mixture containing manganese or a compound manganese; and
- (d) “efficient exhaust ventilation” means localized ventilation effected by mechanical means for the removal of dust or fume or mist at its source of origin so as to prevent it from escaping into the atmosphere of any place where any work is carried on. No draught shall be deemed to be efficient which fails to remove the dust or fume or mist at the point where it is generated and fails to prevent it from escaping into an spreading into the atmosphere of a work place.

3. *Isolation of a process.*— Every manganese process which may give rise to dust, vapour or mist containing manganese, shall be carried on in a totally enclosed system or otherwise effectively isolated from other processes so that plants and processes and other parts of the factory and persons employed on other processes may not be affected by the same.

4. *Ventilation of process.*— (a) 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.

(b) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(c) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(d) A report containing particulars of such examination and test shall be maintained in Form XXXV.

5. *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 while working on a manganese process.

(2) The occupier of the factory shall provide suitable respiratory protective equipment for use by workers in emergency to prevent inhalation of dusts, fumes or mists. Sufficient number of complete sets of such equipment shall always be kept near the work place and the same shall be properly maintained and kept always in a condition to be used readily.

(3) The occupier shall provide and maintained for the use of all persons employed, suitable accommodation for the storage of personal protective equipment's and make adequate arrangement for cleaning and maintenance thereof.

6. *Prohibition relating to pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or person below 18 years shall be employed or permitted to work in any manganese process.

7. *Food, drinks, etc. prohibited in the work rooms.*— No food, drink, pan and supari or tobacco shall be allowed to be brought into or consumed by any worker in any workroom in which any manganese process is carried on.

8. *Messroom.*— There shall be provided and maintained for the use of the persons employed in a manganese process a suitable messroom which shall be furnished with sufficient tables and benches and adequate means for warming of food. The messroom shall be placed under the charge of a responsible person and shall be kept clean.

9. *Washing and bathing facilities.*— The following washing and bathing facilities shall be provided and maintained in clean state and in good repair for the use of all persons employed in manganese process:-

- (a) A wash place under cover with clean towels, soap and nail brushes and with at least one stand pipe for every ten such persons having constant supply of water.
- (b) 50 per cent of the stand pipes provided under item (a) above may be located in bathroom where water shall be made available during the working hours of the factory and for one hour thereafter.
- (c) Clean towels to be provided individually to each worker and also a supply of hot water if so ordered by an Inspector.
- (d) In addition to taps mentioned under item (a) one stand pipe in which warm water is made available to be provided on each floor.

10. *Cloakroom*.— If the Chief Inspector-cum-Facilitator so required, 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.

11. *Cautionary placard and instructions*.— Cautionary notices in the form specified in appendix and printed in the language of the majority of the workers employed, shall be affixed in prominent places in the factory where they can be easily and conveniently read by the workers and arrangement shall be made by the occupier to instruct periodically all workers employed in a manganese process regarding the health hazards connected with their duties and the best preventive measures and methods to be adopted to protect themselves. The notices shall always be maintained in legible condition.

12. *Medical facilities*.— (1) The occupier of the factory shall appoint a qualified medical practitioner whose appointment shall be subject to confirmation by the Chief Inspector-cum-Facilitator. The qualified Medical Practitioner so appointed shall be called ‘Appointed Doctor’.

(2) The occupier shall provide for the purpose of medical examination a room at the factory premises for exclusive use by appointed Doctor. The quietly lighted, ventilated and furnished with a screen, a table (with writing materials), chairs and facilities, equipment's, and instruments for examination and investigation. Such facilities shall be subject to the approval by the Medical Officer.

(3) All workers employed in manganese process shall be examined by the appointed Doctor at an interval not exceeding three months and records of such examinations shall be maintained in a form approved by the Chief Inspector-cum-Facilitator and shall be made available to any Inspector-cum-Facilitator on demand.

(4) The occupier and the appointed Doctor of the factory shall notify forthwith any case or suspected case of poisoning by manganese to the Chief Inspector-cum-Facilitator and Medical Officer.

13. *Medical examination*.— (1) Every person employed in a manganese process shall be medically examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment and thereafter at intervals of not more than six months.

(2) If a person medically examined is found fit for employment on a manganese process the Medical Officer, shall grant a certificate of fitness in Form XXXVI which shall be kept in the custody of the manager of the factory. The certificate shall be readily produced by the manager whenever required by any Inspector-cum-Facilitator, and the person granted such a certificate shall be provided with a token made of metal with the number of the certificate inscribed thereon and the said person shall always carry the said token on the person while at work.

(3) If a person is found unfit for work in any manganese process, the Medical Officer shall grant a certificate to that effect and such person shall not be allowed to work in any manganese process.

(4)(a) If the Medical Officer finds that any worker who has been granted a certificate of fitness at a previous medical examination is no longer fit to be employed on any manganese process, he may revoke the previous certificate and no person whose certificate of fitness has been so revoked shall be allowed to work on any manganese process.

(b) The Medical Officer may require such person to be produced before him for fresh medical examination after such period as he may specify in writing on the revoked certificate and duly entered in the health register.

(5) If the Medical Officer is of the opinion that a person had become permanently unfit for employment on any manganese process, he shall make an entry to that effect in the certificate and also in the health register and no such process.

(6) If the Medical Officer is of the opinion that any special expert examination or test is necessary for a proper diagnosis in a doubtful case, he may direct the manager and/or the occupier to get the worker examined by such expert, or to get such test carried out as may be specified by him and the manager or the occupier as the case may be, shall comply with the direction given within a specified time and produce the report of the examination or test as the case may be, before the Medical Officer.

(7) If the Medical Officer is of the opinion that any person is not fit for employment in any manganese process but is fit to be employed on any other work, he may advise the manager or the occupier to employ the said person on such other job as may be safe for him. The Medical Officer may also advise the worker to undergo such treatment as he may consider necessary.

(8) If any person has any doubt regarding the diagnosis or decision of the Medical Officer, he may make an appeal to the Chief Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator may refer the case to the Medical Board constituted by the Goa Medical College and Hospital. The decision of the Medical Board, shall be final in the matter.

14. *Exemption.*— If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to any exceptional circumstances, or infrequency of the process, or for any other reason, application of all or any of the provisions of this Schedule is not necessary for the protection of the person employed in such factory he may, by an order in writing which he may at his discretion revoke, exempt such factory from all or any of the provisions on such conditions and for such period as he may specify in the said order.

APPENDIX

CAUTIONARY NOTICE.

Manganese and manganese compound

1. Dust fumes 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 situation where dust, fumes, or mists are likely to be inhaled, use respiratory protective equipment provided for the purpose.
7. If you get severe headaches, prolonged sleeplessness or abnormal sensations on the body, report to the manager who would make arrangements for your examination and treatment.

SCHEDULE XX

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. *Definition.*— 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 growth of such pests including in the list of Appendix I to this Schedule and also as covered under the Insecticides Act, 1968 and the rules made thereunder and any other product, as may be declared as a dangerous pesticides from time to time by the Chief Inspector-cum-Facilitator in writing;

- (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 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;
- (d) “first employment” means first employment in any manufacturing process to which this Schedule applies and shall also include re-employment in the said manufacturing process following any cessation of employment for a continuous period exceeding three calendar months; and
- (e) “suspension” means suspension of persons from employment in any process wherein a dangerous pesticide is manipulated by written certificate in the health register in Form XXVIII signed by the Medical Officer who shall be competent to suspend all persons employed in such process.

3. *Instruction to workers.*— Every worker in his first employment shall be fully instructed about the properties including dangerous properties of the chemicals handled in the said manufacturing process and the hazards involved thereunder. The workers shall also be instructed about the measures to be adopted 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 II to this Schedule and printed in the language of the majority of the workers shall be displayed in all work places in which said manufacturing process is carried on so that they can be easily and conveniently read by the workers. Arrangements shall be made by the occupier and the manager of the factory to periodically instruct the workers regarding the health hazards arising in the said manufacturing process and the methods of protection therefrom. Such notices shall include brief instructions regarding the periodical clinical tests required to be undertaken for protecting health of the workers.

5. *Prohibition relating to employment of pregnant women, lactating mother or adolescent persons.*— No pregnant women, lactating mother or person below 18 years shall be employed or permitted to work in any room in which the said manufacturing process is carried on or in any room in which dangerous pesticide is stored.

6. *Food, drinks and smoking prohibited.*— (1) No food, drinks, 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's.*— (1) Protective clothing consisting of long pants and shirts or overalls with long sleeves and head covering shall be provided for all workers employed in the said manufacturing process.

(2) (a) Protective 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) Where the pesticides contain oil gloves, boots and aprons used shall be made from synthetic rubber.

(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 both inside and outside if the workers handle pesticides containing nicotine or phosphorous and shall be washed frequently if they handle other pesticides.

(5) Protective clothing and equipment shall be maintained in good repair.

8. *Floors and workbenches.*— (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 and shall be provided with adequate slope leading to a drain and thoroughly washed once a day with hose pipe.

(3) Workbenches 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 workbench, floor or on the protective clothing worn by a worker, immediate action shall be taken in such areas or articles.

(2) Cloth, rags, paper or other material soaked or soiled with dangerous pesticide shall be deposited in a suitable receptacle with tight fitting cover. Contaminated waste shall be destroyed by burning it 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 pesticide shall be thoroughly cleaned of their contents and treated with a deactivating 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 handle scoop.

(2) Direct contact of any part of the body with a dangerous pesticide during its manipulation shall be avoided.

12. *Air space.*— In every room in which the said manufacturing process is carried on, there shall be at least 15 cubic meters of air space, excluding any space occupied by machinery equipment or any other articles, for any person employed therein, and in computing this air space no height over 3.5 metres shall be taken into account.

13. *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 in an airtight chamber 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.
- (e) (i) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(ii) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(iii) A report containing particulars of such examination and test shall be maintained in Form XXXV.

(3) In the event of a failure of the exhaust draught as provided above the said operations shall be stopped forthwith.

14. *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 intervals 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.

15. *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 place 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 one for each worker if so ordered by the Inspector-cum-Facilitator.

(5) Sufficient supply of soap and nail brushes shall be provided.

16. *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 out off during working hours with adequate arrangements for drying the said clothing, if wet; and

(b) separate and suitable arrangements for the storage of protective clothing provided in paragraph 7.

17. *Messroom.*— (1) There shall be provided and maintained for the use of all workers employed in the factory in which the said manufacturing process is carried on and remaining on the premises during the rest intervals, a suitable messroom which shall be furnished with—

(a) sufficient tables and benches with back rest, and

(b) adequate means for warming food.

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

18. *Manipulation not to be undertaken.*— Manufacture or manipulation of a pesticide shall not be undertaken in any factory unless a certificate regarding its dangerous nature or otherwise is obtained from the Chief Inspector-cum-Inspector.

19. *Medical examination.*— (1) (a) Every worker employed in the said manufacturing process shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before the first employment and no worker shall be allowed to work unless certified fit for such employment by the authority or the agency as specified in sub-rule (3) of this rule.

(b) Every worker employed in the said manufacturing process shall be re-examined by the authority or the agency as specified in sub-rule (3) of this rule at least once in every six months.

(c) Due notice shall be given to the Medical Officer and the concerned workers regarding the arrangements for examination of workers employed in the said manufacturing process after obtaining the consent regarding the arrangements from the Medical Officer.

(d) A health register in Form XXVIII containing names of all workers employed in the said manufacturing process shall be maintained.

(e) No persons whose services have been suspended on health grounds shall be re-employed without written sanction from the Medical Officer entered in or attached to the health register.

(2) The Chief Inspector-cum-Facilitator may order suitable clinical test or tests to be carried out at specified intervals in respect of workers in any factory where such manufacturing process is carried on. Charges for such test or tests shall be borne by the occupier.

20. *Medical facilities.*— (1) The occupier shall engage a qualified medical practitioner approved by the Chief Inspector-cum-Facilitator who shall examine and when necessary treat on the premises of the factory, all workers who are employed in the said manufacturing process, for effects of excessive absorption of the dangerous pesticides at least once a week.

(2) The occupier shall make necessary arrangement to ensure quick availability of qualified medical practitioner in emergency.

(3) The occupier shall provide medicines and antidotes and other equipment's required for treatment of excessive absorption of dangerous pesticides.

(4) Records of such examinations and treatments and test shall be maintained in a form approved by the Chief Inspector-cum-Facilitator and shall be made available to the Inspector-cum-Facilitator for inspection.

(5) Every worker in any factory where the said manufacturing process is carried on, shall undergo the prescribed examinations, tests and treatments.

21. *Exemption.*— If in respect of any factory, the Chief Inspector-cum-Facilitator is satisfied that owing to the exceptional circumstances or the infrequency of the said manufacturing process or for any other reason which he shall record in writing, all or any of the provisions of this Schedule are not necessary for the protection of the workers employed in the said factory, he may by a certificate, in writing, exempt such factory, from all or any of the provisions of such condition as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-Facilitator after recording his reasons thereof.

APPENDIX I

List of dangerous pesticides

Parthion

Diazinon

Hexaethyl tetraphosphate

Tetraethyl pyrophosphate

Tetraethyl ditripyrophosphate

Demeton (systex)

Schradan (OMPR)

Para-Oxon (E.600)

Methyl Parathion

Dimefox
Sulphotepp
EPN
Nicotine or its compounds
Mercury compounds
Methyl bromide
Cyanides
Chlordane
Endrin
Aldrin
Dieldrin
Texaphene
Dinitro-o-cresol
Arsenical compounds
Cryolite
Pentachlorophenol.

APPENDIX II

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 bath shall be taken before meals.
5. A good bath shall be taken at the end of the shift.
6. Protective clothing and equipment's 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 work-bench shall be immediately washed away with water.
9. Clothing contaminated due to splashing shall be removed immediately.
10. Scrupulous cleanliness shall be maintained in this area,
11. Do not handle pesticides with bare hands, use scoops provided with handle.
12. In case of sickness like nausea, vomiting, giddiness, the manager should be informed who will make necessary arrangements for treatment.
13. All workers shall report for the prescribed medical tests regularly to protect their own health.

SCHEDULE XXI

Manufacture, handling and usage of benzene and substances containing**Benzene**

1. *Application.*— This Schedule shall apply in respect of factorys 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 vapour to the working atmosphere; and
- (d) “efficient exhaust draught” means localised ventilation effected by mechanical means for the removal of gases, vapour 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) 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) Benzene or substances containing benzene shall not be used as a solvent or diluent unless the process in which it is used is carried on in an enclosed system or unless the process is carried on in a manner which is considered equally safe as if it were carried out in an enclosed system.

(3) Where suitable substitutes are available, they shall be used instead of benzene or substances containing benzene. This provision, however shall not apply to the following processes:-

- (a) production of benzene;
- (b) process where benzene is used for chemical synthesis and
- (c) motor spirits (used as fuel)

(4) The Chief Inspector-cum-Facilitator may, subject to confirmation by the Government, permit exemptions from the percentage laid down in sub-paragraph 2 (a) and also from the provisions of sub-paragraph (3) of this paragraph temporarily under conditions and within limits of time to be determined after consultation with the occupiers and workers concerned.

4. *Protection against inhalation.*— (1) The process involving the use of benzene or substances containing benzene shall be as far as practicable carried out in an enclosed system.

(2)(i) Where, however, it is not practicable to carry out the process in an enclosed system, the workroom in which benzene or substance 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 25 parts per million by volume or 80 milligrams per cubic meter.

(ii) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(iii) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(iv) A report containing particulars of such examination and test shall be maintained in Form XXXV.

(3) Air analysis for the measurements of concentration of benzene vapours on air shall be carried out every eight hours or at such intervals as may be directed by the Chief Inspector-cum-Facilitator at place 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, exceed 25 parts per million by volume or 80 milligrams per cubic meter, the manager shall forthwith report the concentration of 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 sub-paragraph (2) shall be provided with suitable respirators or face masks. The duration of such exposure shall be limited as far as possible.

5. *Measures against skin contact.*— (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 vapour.

(2) The protective wear referred to in sub-paragraph (1) shall be maintained in good conditions and inspected regularly.

6. *Prohibition relating to employment of pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or person below 18 years shall be employed or permitted to work in any workroom involving exposure to benzene or substances containing benzene.

7. *Labelling.*— Every container holding benzene or substances containing benzene shall have the word “Benzene” and approved danger symbols clearly visible on it and shall also display information on benzene content, warning about toxicity and warning about inflammability of the chemicals.

8. *Improper use of benzene.*— (1) The use of benzene or 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 workroom.*— No worker shall be allowed to store or consume food or drink in the workroom in which benzene or substances containing benzene are manufactured handled or uses. Smoking and chewing tobacco or pan shall be prohibited in such workroom.

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 danger involved thereunder. Workers shall also be instructed on the measures to be taken to deal with 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 substance containing benzene are manufactured, handled or used.

12. *Washing facilities, cloakroom and messroom.*— 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 to each individual worker if so ordered by the Inspector-cum-Facilitator.
- (b) A cloakroom with lockers for each worker, having two compartments – one for street-clothing and one for work-clothing; and

- (c) A messroom furnished with tables and benches with means for warming food, provided that where a canteen or other parts arrangements exist for the workers to take their meals, the requirements of messroom shall be dispensed with.

13. *Medical examinations.*— (1) Every worker who is to be employed in process involving use of benzene or substances containing benzene, shall undergo.

- (a) a thorough pre-employment medical examination including a blood test for fitness for employment by the authority or the agency as specified in sub-rule (3) of this rule; and
- (b) periodical medical examination including blood test and other biological tests at intervals of every six months by the authority or the agency as specified in sub-rule (3) of this rule.

(2) Certificates of pre-employment medical examination and periodical medical examination including tests, shall be entered in a health register in Form XXVIII which shall be produced on demand by an Inspector-cum-Facilitator.

- (3)(a) If the Medical Officer on examination at any time is of the opinion that any worker has developed signs or symptoms of benzene exposure, he shall make a record of his findings in the said register and inform the manager in writing.

- (b) The Medical Officer, shall after satisfying himself with the findings, issue orders of temporary shifting of the worker or suspension of the worker in the process.

(4) The medical examination shall be arranged by the occupier or manager of the factory and the worker so examined shall not bear any expenses for it.

APPENDIX

CAUTIONARY NOTICE

Benzene and substances containing benzene

1. *Hazards:*

- (a) Benzene and substances containing benzene are harmful.
- (b) Prolonged or repeated breathing of benzene vapours may result in acute or chronic poisoning.
- (c) Benzene can also be absorbed through skin which may cause skin and other diseases.

2. *Preventive measures:*

- (a) Avoid breathing of benzene vapour.
- (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 of 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 other body parts.
4. *First-aid measures in case of acute benzene poisoning.*
- (a) Removing the clothing immediately if it is wetted with benzene.
 - (b) If liquid benzene enters the eyes, flush them 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.
 - (aa) Move him to fresh air in open.
 - (bb) Lay him down without a pillow and keep him quite 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 operations 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 provision of the Act and Rules made thereunder.

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 segregate 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 expose 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 fitting 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 manufactures' instructions and these instructions shall be clearly imparted to the personnel incharge of construction and operation.

(5) The instructions regarding observance of correct furnace temperature, sulphur dose, admissible current or powder consumption and periodical checking of charcoal level shall be strictly complied with.

3. *Electrodes.*— (1) where upper ring electrode 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 arrangements 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. *Maintenance of charcoal level.*— Why any electric furnace is in operation, it shall be ensured that the electrodes are kept covered with charcoal bed.

5. *Charcoal separator.*— A cyclone type of charcoal separator or any other effective arrangement to the satisfaction of the Chief Inspector-cum-Facilitator shall be fitted on the offtake 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 temperature shall be located in the control room.

(2) Manometers or any other suitable devices shall be provided for indicating pressure-

- (a) in the offtake pipe before and after the sulphur separator; and
- (b) in primary and secondary condensers.

8. *Check valves etc.*— All piping carrying carbon disulphide shall be fitted with check valves, water seals or some other effective devices at suitable positions so as to prevent gas from flowing back into any electric furnace in the event of its shut down.

Overheads, storage tank or tanks of adequate capacity shall be provided to ensure supply of cooling water by direct gravity feed to the condensers in case of emergency such as power shut down, etc. at least for the duration during which it would be possible to initiate and complete the procedures for the shut-down of the furnace.

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-ashing or for replacing electrodes.

(2) When an electric furnace is shut down for cleaning or de-ashing-

- (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 plated forming shell found corroded to the extent that safety of the furnace is endangered shall be replaced.

10. *Maintenance of records.*— The following hourly records shall be maintained in a log book:-

- (a) manometer readings at the points specified in sub-paragraph 7 (2)
- (b) gas temperature indicated by 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 person to move to a safe place as quickly as possible in case of an emergency. At least two independent staircase of adequate width shall be provided in every building housing the furnaces at reasonable intervals at opposite ends. These shall always be kept clear of all obstructions and so designed as to afford easy passage.

14. *Warning in case of fire.*— There shall be adequate arrangements for giving warnings in case of fire or explosion which shall operate on electricity and in case of failure of electricity, by some mechanical means.

15. *Fire fighting equipments.*— (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 equipments should be used and printed in the language which the majority of the workers employed understand, shall be affixed to each extinguisher or other equipments and the personnel shall be 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 of 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 shoveled or otherwise removed by hand.

(4) No repairs involving flames, heat or use of hands or power tools shall be enclosure where bulk sulphur is stored.

17. *Liquid Sulphur*.— Open flames, electric sparks or other sources of ignition, including smoking and matched, shall be excluded from the vicinity of molten sulphur.

18. *Training and supervision*.— (1) All electric furnaces and all plants on which carbon disulphide is condensed, refined or stored shall be under adequate supervision at all times while the furnaces and plants are in operation.

(2) Workers in charge of operation and maintenance of electric furnaces and of the plants shall be properly qualified and adequately trained.

19. *Washing facilities*.— (1) The occupier shall provide and maintain a clean state and in good repair, for the use of all persons employed each place under cover with at least one tap or standpipe, having a constant supply of clean water for every five such persons, the taps or stand-pipes being spaced not less than 120 centimeters, apart with a sufficient supply of soap and clean towels, provided that towels shall be supplied to each individual 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 equipments*.— (1) Suitable goggles and protective clothing consisting of overalls without pockets, gloves and foot-wear shall be provided for the use of operators.-

(a) when operating valves or cocks controlling fluids; etc.

(b) drawing off of molten sulphur from sulphur pots; and

(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 cloak room for clothing put off during work hours and a suitable place separate from clothes. The accommodation so provide shall be placed in the charge of a responsible person and shall be kept clean.

22. *Unauthorised persons*.— Only maintenance and repair personnel, persons directly connected with the plant operation and those accompanied by authorised persons shall be admitted into the plant.

SCHEDULE XXIII

Manufacture or manipulation of carcinogenic dye intermediates

1. *Application*.— This Schedule shall apply in respect of all factories or any part thereof where processes in which the substances mentioned in paragraph 3, and 4 are formed, manufactured, handled or used and the processes incidental thereto in the course of which these substances are formed, are carried on. The processes indicated in this paragraph shall be referred to hereinafter as “ the said processes” and such a reference shall mean any or all the processes described in this paragraph.

2. *Definition*.— For the purpose of this Schedule the following definitions shall apply, unless the context otherwise requires.-

- (a) “controlled substances” means chemical substances mentioned in paragraph 4 of this Schedule;
- (b) “first employment” means first employment in the said processes and also re-employment in such processes following any cessation of employment for a continuous period exceeding three calendar months.
- (c) “efficient exhaust draught” means localised ventilation effected by mechanical means for the removal of gas, vapour, dust or fume so as to prevent them from escaping into the air of any place in which work is carried on. No draught, shall be deemed to be efficient which fails to remove smoke generated at the point where such gas, vapour, fume or dust originates; and
- (d) “prohibited substances” means chemical substances mentioned in paragraph 3 of this Schedule.

3. *Prohibited substances.*— For the purpose of this Schedule, the following chemical substances shall be classified as “prohibited substances” except when these substances are present or are formed as a by-product of a chemical reaction in a total concentration not exceeding one per cent-

- (a) beta-naphthylamine and its salts;
- (b) benzidine and its salts;
- (c) 4-amino diphenyl and its salts;
- (d) 4-nitro diphenyl and its salts; and
- (e) any substance containing any of these compounds.

4. *Controlled substances.*— For the purpose of this Schedule, the following chemical substances shall be classified as “controlled substances”

- (a) alpha-naphthylamine or alpha-naphthylamine containing not more than one per cent of beta-naphthylamine either as a by-product of chemical reaction or otherwise, and its salts;
- (b) ortho-tolidine and its salts;
- (c) dianisidine and its salts;
- (d) dischlorobenzidine and its salts;
- (e) auramine; and
- (f) magneta.

5. *Prohibition of employment.*— No person shall be employed in the said processes in any factory in which any prohibited substances is formed, manufactured, processed, handled or used except as exempted by the Chief Inspector-cum-Facilitator as stipulated in paragraph 23.

6. *Requirements for processing or handling controlled substances.*— (1) Wherever any of the controlled substances referred to in paragraph 4 are formed, manufactured, processed, handled or used, all practical steps shall be taken to prevent inhalation, ingestion or absorption of the said controlled substance by the workers while engaged in processing that substances, and its storage or transport within the plant, or in cleaning or maintenance of the concerned equipment, plant, machinery and storage areas.

(2) (a) As far as possible all operations shall be carried out in a totally enclosed system. Wherever such enclosure is not possible, efficient exhaust draught shall be applied at the point where the controlled substances are likely to escape into the atmosphere during the process.

(b) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(c) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(d) A report containing particulars of such examination and test shall be maintained in Form XXXV.

(3) The controlled substances shall be received in the factory in tightly closed containers and shall be kept so except when these substances are in process or in use. The controlled substances shall leave the factory only in tightly closed containers of appropriate type. All the containers shall be plainly labelled to indicate the contents.

7. *Personal protective equipment.*— (1) the following items or personal protective equipment shall be provided and issued to every worker employed in the said processes-

- (a) long trousers and shirts or overalls with full sleeves and head coverings. The shirt or overall shall cover the neck completely; and
- (b) rubber gum-boots.

(2) The following items of personal protective equipment shall be provided in sufficient numbers for use by workers employed in the said processes when there is danger of injury during the performance of normal duties or in the event of emergency-

- (a) rubber hand-gloves;
- (b) rubber aprons; and
- (c) airline respirators or other suitable respiratory protective equipment.

(3) It shall be the responsibility of the manager to maintain all items of personal protective equipment in a clean and hygienic condition and in good repair.

8. *Prohibition relating to employment of pregnant women, lactating mother and adolescent persons.*— No pregnant women, lactating mother or person below 18 years shall be employed or permitted to work in any room in which the said processes are carried on.

9. *Floors of workroom.*— The floor of every 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.

10. *Disposal of empty containers.*— Empty containers used for holding controlled substances shall be thoroughly cleaned of their contents and treated with a deactivating agent before being discarded.

11. *Manual handling.*— Controlled substances shall not be allowed to be mixed, filled, emptied or handled except by means of a scoop with a handle. Such scoop shall be thoroughly cleaned daily.

12. *Instructions regarding risk.*— Every worker on his first employment in the said processes shall be fully instructed about the properties of the toxic chemicals to which he is likely to be exposed to, of the dangers involved and the precautions to be taken. Workers shall also be instructed on the measures to be taken to deal with an emergency.

13. *Cautionary placards.*— Cautionary placards in the form specified in appendix attached to this Schedule and printed in the language of the majority of the workers employed in the said processes shall be affixed in prominent places frequented by them in the factory, where the placards can be easily and conveniently read. Arrangements shall be made by the manager to instruct periodically all such workers regarding the precautions contained in the cautionary placards.

14. *Obligations of the workers.*— It shall be the duty of the persons employed in the said processes to submit themselves for the medical examination including exfoliative cytology of urinary system by the authority or the agency as specified in sub-rule (3) of this rule or the qualified medical practitioner as provided for under these rules.

15. *Washing and bathing facilities.*— (1) The following washing and bathing facilities shall be provided and maintained in a clean state and in good 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 per cent 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 everyday.

16. *Food, drink, etc. prohibited in workroom.*— No worker shall consume food, drink, pan, supari or tobacco or shall smoke in any workroom in which the said processes are carried on and no worker shall remain in any such room during intervals for meals or rest.

17. *Cloakroom.*— There shall be provided and maintained in a clean state and in good repair for the use of the workers employed in the said processes.

- (a) 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 messroom, 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.

18. *Messroom.*— 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 messroom which shall be furnished with tables and benches and provided with suitable means for warming food.

19. *Time allowed for washing.*— Before the end of each shift 30 minutes shall be allowed for bathing for each worker who is employed in the said processes. Further, at least 10 minutes shall be allowed for washing before each meal in addition to the regular time allowed for meals.

20. *Restriction on age of persons employed.*— No worker under the age of 40 years shall be engaged in the factory in the said processes for the first time after the date on which this Schedule comes into force.

21. *Medical examination:*— (1) Every worker employed in the said processes shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment. Such examination shall include tests which the authority or the agency as specified in sub-rule (3) of this rule may consider appropriate and shall include exfoliate cytology of the urinary system.

(2) Every worker employed in the said processes shall be re-examined by the authority or the agency as specified in sub-rule (3) of this rule at least once in every six months. Such examination shall include tests which the authority or the agency as specified in sub-rule (3) of this rule may consider appropriate but shall include exfoliative cytology of the urinary system.

(3) A person medically examined under sub-paragraph (1) shall be granted by the authority or the agency as specified in sub-rule (3) of this rule a certificate of fitness in Form XXXVI. Record of each re-examination carried out under sub-paragraph (2) shall be entered in the certificate. The certificate shall be kept in the custody of the manager of the factory.

(4) The record of each examination carried out as referred to sub-paragraph (1) and (2) including the nature and the results of the tests shall be entered by the authority or the agency as specified in sub-rule (3) of this rule in a health register in Form XXVIII.

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

(6) If at any time the Medical Officer is of the opinion that a person is no longer fit for employment in the said processes or in any other work on the ground that continuance therein would involve damage to his health, he shall make a record of his findings in the said certificate and also in 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 or in any work as the case may be.

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

22. *Medical facilities.*— (1) The occupier of every factory in which the said processes are carried on shall engage a qualified medical practitioner for medical surveillance of the workers employed in such processes. His appointment shall be subject to approval of the Chief Inspector-cum-Facilitator.

(2) The occupier shall provide to him all the necessary facilities for the purpose referred to in sub-paragraph (1).

(3) A record of medical examinations and appropriate tests carried out by the qualified medical practitioner shall be maintained in a form approved by the Chief Inspector-cum-Facilitator.

23. *Exemptions prohibited substances.*— (1) The Chief Inspector-cum-Facilitator may by certificate in writing (which he may at his discretion revoke at any time), subject to such conditions, if any, as may be specified therein, exempt any process in the course of which any of the prohibited substances is formed, processed, manufacture, handled or used, from the provisions of paragraph 5 if he is satisfied that the process is carried out in a totally enclosed and hermetically sealed system in such a manner that the prohibited substance is not removed from the system except in quantities no greater than that required for the purposes as is necessary to ensure that the product is free from any of the prohibited substances.

(2) The Chief Inspector-cum-Facilitator may allow the manufacture, handling or use of Benzedrine hydrochloride provided that all the processes in connection with it are carried out in a totally enclosed system in such a manner that no prohibited substance other than Benzedrine hydrochloride is removed there from except in quantities no greater than that require for the purpose of control of the processes of for such purposes as is necessary to ensure that the product is free from prohibited substances and that adequate steps are taken to ensure that benzidine hydrochloride except when not in a totally enclosed system, is kept wet with not less than one part of water to two parts of Benzedrine hydrochloride at all times.

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

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

APPENDIX

CAUTIONARY PLACARD/NOTICE

Carcinogenic dye intermediates.

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

SCHEDULE XXIV

Operations involving high noise and vibration levels

Part – A. High Noise Levels:

1. Application.— This Part of the Schedule shall apply to all operations in any manufacturing process having high noise level.
2. Definitions.— For the purpose of this Schedule, -
 - (a) “noise” means any unwanted sound;
 - (b) “high noise level” means any noise level measured on the 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 of 10 of this ratio. The noise level (or the sound pressure level) corresponds to a reference pressure of 20×10 Newton per square meter or 0.0002 dynes per square centimeter which is the threshold of hearing, that is, the lowest sound pressure level necessary to produce the sensation of hearing in average healthy listeners. The decibel in abbreviated form is dB;
 - (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 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 short term exposures) per day in hours. (1)	Sound pressure level in dBA (2)
8	85
6	87
4	90
3	92
2	95
1½	97
1	100
¾	102
½	105
¼	110

Notes: (A) No exposure in excess of 110 dBA is to be permitted

- (B) For any period of exposure falling in between any figure and the next higher or lower figure as indicated in column 1, the permissible sound pressure level is to be determined by extrapolation on a proportionate basis.

TABLE 2

Permissible exposure levels of impulsive or impact noise.

Peak sound pressure level in dB (1)	Permitted number of impulses or impacts per day (2)
140	100
135	315
30	1,000
125	3,160
120	10,000

Notes: (A) No exposure in excess of 140dB peak sound pressure level is permitted.

- (B) 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 purpose 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 2 would apply.
- (3) When the daily exposure is composed of two or more periods of noise exposure at different levels their combined effect should be considered rather than the individual effect of each. The mixed exposure should be considered to exceed the limit value if the sum of the fractions

$$\frac{C_1}{T_1} + \frac{C_2}{T_2} + \dots + \frac{C_n}{T_n} \text{ exceeds unity,}$$

Where the C1, C2 etc indicate the total time of actual exposure at a specified noise level and T1 T2, etc denote the time of exposure of less than 85 dBA may be ignored in the above calculation.

- (4) Where it is not possible to reduce the noise level exposure to the levels specified in sub-clause (1) by reasonable practicable engineering control or administrative measures, each worker so exposed shall be provided with suitable ear protectors as per relevant National or International Standards so as to reduce the exposure to noise to the levels specified in sub-clause (1).
- (5) (1) The occupier shall provide personal hearing protectors to the workers.
- so as to eliminate the risk to hearing or to reduce the risk to as low a level as is reasonably practicable.
 - after consultation with the employees concerned or their representative.
 - and ensure the hearing protectors are properly fitted, periodically checked for the effectiveness and are maintained in good working order and repair.
 - and ensure that workers are given periodical training in the use, care and maintenance of the personal hearing protectors.
- (6) (a) Where the ear protectors worn by a worker cannot still attenuate the noise reaching near his ear, as determined by subtracting the attenuating 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-clause (1).
- (b) Every worker employed in areas where the noise exceeds the maximum permissible exposure level specified in sub-clause (1) shall be subjected to any auditory examination by the authority or the agency as specified in sub-rule (3) of this rule before his first employment and thereafter, shall be re-examined at least once every 12 months. Such initial and periodical examinations shall include tests which the authority or the agency as specified in sub-rule (3) of this rule may consider appropriate and shall include determination of auditory thresholds for pure tones of 125, 250, 500, 1000, 2000, 4000 and 8000 cycles per second.

Part – B. High Vibration Levels:

1. Applications.—

This part of the Schedule shall apply to all operations in any manufacturing process having high vibrations.

2. Definitions.—

- (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 vehicle as a result of its operations; 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 as stated 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/s² A(8)
- (b) The daily exposure action value is 2.5 m/s²A(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/s²A(8);
- (b) The daily exposure action value is 0.5 m/s² 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 ²) 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/s²).
4. Assessment of risk to health due to vibration at the work place.-

- (1) An occupier who carry out work which is liable to expose any worker to vibration shall make a suitable and sufficient assessment of the risk created by that work to the health and safety of those and the risk assessment shall identify the control measures that need to be taken.
- (2) The risk assessment should be reviewed whenever it is felt that the change 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.
- (2) Where it is not reasonably practicable to eliminate risk at source and an exposure action value is likely to be reached or exceeded, the occupier shall reduce exposure to as low a level as is reasonably practicable by establishing and implementing a programme of engineering control measures which are appropriate to this type of activity.
- (3) The occupier shall ensure that the workers are provided with the following measures:-
 - (a) Work equipment of appropriate ergonomic design which, taking account of the work to be done, produces the least possible vibration.
 - (b) The provision of auxiliary equipment which reduces the risk of injuries caused by vibration; and install appropriate maintenance programmes for work equipment, the work place and the workplace systems.
- (4) The occupier shall ensure that his employees are not exposed to vibration above an exposure limit value; and shall take necessary steps to identify the reasons for the limit being exceeded and take appropriate steps to reduce the exposure to vibration to below limit value.

Provided that where the exposure of an employee to vibration is usually below the exposure action value but varies markedly from time to time and may occasionally exceed the exposure limit value.

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 limit value and that the risk is reduced to as low a level as is reasonably practicable taking into account the special circumstances.

6. Medical Examination.-

- (1) The occupier shall ensure that the workers who are likely to be exposed to vibration at above exposure action value are subjected to periodical medical examination once in a year. The medical examination shall include general and physical examination as well as special test by Reynaud's phenomenon.
- (2) The health record of workers shall be maintained by the occupier for a period of 5 years from the date of last test and shall be produced to the Inspector-cum-Facilitator on demand.
- (3) If, at any time the Medical Officer is of the opinion that the worker is no longer fit to work in the said process on the ground that continuance daring would involve danger to the health of the worker he shall make a record of his findings in the said certificate and health register. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit for work in the same 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. 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 Personal Protective Equipment and protective clothing confirming to national and international standards. Such Personal Protective Equipment shall include hand gloves and safety shoes. The protective clothing shall be able to protect the workers from cold and damp.
- (2) The occupier shall ensure that workers are given periodical training in the use care and maintenance of the Personal Protective Equipment.

8. Administrative Control Measures.-

- (1) The occupier shall ensure that as far as reasonably practicable all necessary control measures are taken to ensure that the unwanted 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, instructions and training so as to follow the exposure limit values and action values as set out in clause (3).
- (3) Without prejudice to the generality of sub-clause (2), the information, instructions and training provided shall include, -
 - (a) the exposure limit values and action values set out in clause (3);
 - (b) safe working practices to minimize exposure to vibration; and
 - (c) suitable and sufficient information and training for employees so that work equipment may be used correctly and safely in order to minimize their exposure to vibration;
 - (d) limitation of the duration and magnitude of exposure to vibration;
 - (e) appropriate work schedules with adequate rest periods; and
 - (f) the information, instructions and training required shall be updated to take account of significant changes in the type of work carried out or the working methods used by the occupier.
- (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, lactating mother, young persons and persons with disabilities. -

No pregnant women, lactating mother, young person or persons with disabilities shall be employed in the process covered by this part of the Schedule.

Exemptions.- If, in respect of any factory, the Chief Inspector-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 of this Schedule, on such conditions and for such period as he may specify in the said Order.

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 is a poisonous, asphyxiating or irritant atmosphere, breathes unpolluted air;

- c) “churn” means the vessel in which alkali Cellulose pulp is treated with carbon disulphide;
- d) “dumping” means transfer of cellulose xamthate from a dry churn to a discover;
- e) “efficient exhaust” means localized ventilation by mechanical means for the removal of any gas or vapour so as to prevent it from escaping into the air of any place in which work is carried on. No draught shall be deemed to be efficient if it fails to control effectively any gas or vapour generated at the point where such gas or fume originates;
- f) “fume process” means any process in which carbon disulphide or hydrogen sulphide is produced, used or given off;
- g) “life belt” means a belt made of leather or other suitable material which can be securely fastened round the body with a suitable length of rope attached to it, each of which is sufficiently strong to sustain the weight of a man.
- h) “protective equipment” means apron, goggles, face shields, foot wear, gloves and overalls made of suitable materials.

2. *Ventilation.*— (1) In all work rooms where a fume process is carried on, adequate ventilation by natural or mechanical means shall be provided so as to control, in association with other control measures, the Concentration of Carbon-disulphide and hydrogen sulphide in the air of every work environment within the permissible limits.

(2) (i) Notwithstanding the requirements in sub-paragraph (1) an efficient exhaust draught shall be provided and maintained to control the concentration of Carbon-di-sulphide and hydrogen sulphide in the air at the following locations:-

- (a) dumping hoppers of dry churns,
- (b) spinning machines;
- (c) trio rollers and cutters used in staple fibre spinning.
- (d) Hydro-extractors for yarn cakes,
- (e) after treatment processes, and
- (f) spin baths.

(ii) The exhaust draught appliance shall be examined and tested by a competent person once within a period of twelve months so as to ascertain and maintain the effectiveness of the exhaust draught provided.

(iii) Any defect disclosed by such examination and test shall be rectified as soon as practicable.

(iv) A report containing particulars of such examination and test shall be maintained in Form XXXV.

(3) In so far as the spinning machines and trio rollers and cutters used in staple fiber spinning are concerned, they shall be, for the purpose of ensuring the effectiveness of the exhaust draught to be provided as required in sub-paragraph (2), enclosed as fully as practicable and provided with suitable shutters in sections to enable the required operations to be carried out without giving rise to undue quantities of Carbon-di-sulphide and hydrogen sulphide escaping to the work environment.

(4) No dry churn shall be opened after completion of reaction without initially exhausting the residual vapours of Carbon-di-sulphide by operation of 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 area where the equipment or processes specified in the above said sub-

paragraphs are in use, as soon as possible, and in any case not later than 15 minutes after such an occurrence.

(6) (i) All ventilating systems provided for the purposes as required in sub-paragraphs (2), (3) and (4) shall be examined and inspected once every week by a responsible person. It shall be thoroughly examined and tested by a competent person once in every period of 12 months. Any defects found by such examinations or test shall be rectified forthwith.

(ii) A register containing particulars of such 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 waster 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 be maintained in good conditions.

5. *Air monitoring.*— (1) To ensure the effectiveness of the control measures, monitoring of Carbon-di-sulphide and hydrogen sulphide in air shall be carried out once at least in every shift and the record of the results so obtained shall be entered in a register specially maintained for the purposes.

(2) For the purpose of the requirement in sub-paragraph (1), instaneous gas detector tubes shall not be used. Samples shall be collected over duration of not less than 10 minutes and analysed by an approved method. The locations where such monitoring is to be done shall be as directed by the Inspector-cum-Facilitator.

(3) If the concentration of either carbon disulphide or hydrogen sulphide exceeds the permissible limits for such vapour or gas as laid down in rule 103, suitable steps shall be taken for controlling the concentration 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 pregnant women, lactating mother or adolescent persons.*— No pregnant women, lactating mother or adolescent person shall be employed or permitted to work in any fume process or in any room in which any such process is carried on.

8. *Protective equipments.*— (1) The occupier shall provide and maintain in good conditions protective equipments as specified in the table for use of person employed in the processes referred to therein.

TABLE

Process	Protective Equipment
1. Damping	Overalls, face-shields, gloves and footwear all made of suitable materials.
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 equipments as may be directed by the Chief Inspector by an order in writing.

(2) A suitable room, rooms or lockers shall be provided exclusively for the storage of all the protective equipment supplied to workers and no such equipments shall be stored at any place other than the room, rooms or lockers so provided.

9. *Breathing apparatus etc.*— (1) There shall be provided in every factory where fume process is carried in, sufficient supply of—

- (a) breathing apparatus,
- (b) Oxygen and suitable appliances for its administration, and
- (c) Life belts.

(2) (i) The breathing apparatus and other appliances referred to in sub-paragraph (1) shall be maintained in good condition and kept in appropriate locations so as to be readily available.

(ii) The breathing apparatus and other appliances referred to in clauses (a) and (b) of sub-paragraph (1) shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.

(iii) A record of the maintenance and of the condition of the breathing apparatus and other appliances referred to in sub-paragraph (1) shall be entered in a registered 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 3 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 persons shall be employed to perform any work specified in sub-paragraph (1) for which breathing apparatus is necessary to be provided under the sub-paragraph, unless he has been fully instructed in the proper use of that container.

(6) No breathing apparatus provided in pursuance of sub-paragraph (1) which has been worn by 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 conductors shall either be enclosed in metal conduit 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 pasted in prominent locations in the plant prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked light or spark into such room:

Provided that fire, naked light or other means of producing a naked light or spark may be carried on in such room only when required for the purposes of the process itself under the direction of a responsible person.

12. *Washing and bathing facilities.*— (1) There shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the processes covered by the Schedule, adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 25 persons employed.

(2) The washing places shall have stand pipes 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.

(5) Sufficient supply of soap and nails 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 arrangement.

(2) Such rest room shall be provided with fresh air supply and adequate seating arrangement.

14. *Cautionary notice and instruction.*— (1) The following cautionary notice shall be prominently displayed in each fume process room.

“Cautionary Notice”

1. Carbon disulphide (CS₂) and Hydrogen Sulphide (H₂S) which may be present in this room are hazardous to health.
2. Follow safety instructions.
3. Use protective equipment and breathing apparatus as and when required.
4. Smoking is strictly prohibited in this area”

This notice shall be in a language understood by the majority of the workers and displayed where it can be easily and conveniently read. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice so displayed.

(2) Arrangements shall be made to instruct each worker employed in any room in which fume process is carried on regarding the health hazardous connected with their work and the preventative measures and methods to protect themselves. Such instructions shall be given on his first employed and repeated periodically.

(3) Simple and special instruments shall be framed to ensure that effective measures will be carried out in case of emergency involving escape of carbon disulphide and hydrogen sulphide. These instructions shall be displayed in the concerned areas and workers shall be instructed and trained in the actions to be taken in such emergencies.

15. *Medical facilities and records of examinations and tests.*—

(1) The occupier of each factory to which this schedule applies, shall -

- (a) employ a qualified medical practitioner for medical surveillance of the workers employed in the fume process whose employment shall be subject to the approval of the Chief Inspector-cum-Facilitator; and
- (b) provide to the said qualified medical practitioner all the necessary facilities for the purpose referred to in clause (a).

(2) The record of medical examination and appropriate tests carried out by the said qualified medical practitioner shall be maintained in a separate register approved by the Chief Inspector-cum-Facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.

16. *Medical Examination.*— (1) Every worker employed in the fume process shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment. Such

examination shall include tests for estimation of exposure coefficient (iodine azide test on urine), and cholesterol as well as Electrocardiogram (ECG) and Central Nervous System (CNS) tests.

(2) Every worker employed in the fume process shall be re-examined by the authority or the agency as specified in sub-rule (3) of this rule at least once in every twelve months. Such examinations shall, wherever the authority or the agency as specified in sub-rule (3) of this rule considers appropriate, include all the tests as specified in sub-paragraph (1).

(3) The authority or the agency as specified in sub-rule (3) of this rule after examining a worker shall issue a Certificate of Fitness in Form XXXVI. The record of re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results of the tests shall also be entered by the authority or the agency as specified in sub-rule (3) of this rule in a health register in Form XXVIII.

(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 opinion that a worker is no longer fit for employment in the fume process on the ground that continuance therein would involve special danger to the health of the worker, he shall make record of his findings in the said certificate and the Health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the fume process.

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

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 protection of the workers in the factory, the Chief Inspector-cum-Facilitator may by a certificate in writing, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

SCHEDULE XXVI

Handling and Processing of 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 (Central Act 30 of 1934), gives off flammables vapour at a temperature less than 32 degrees centigrade;
 - (b) “flammable compressed gas” means flammable compressed gas as defined in section 2 of the Static and Mobile pressure Vessels (unfired) Rules, 2016 framed under the Explosives 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 a highly flammable liquid or flammable compressed gas shall be always kept closed and all reasonably practicable steps shall be taken to contain or immediately drain off to a suitable container any spill or leak that may occur.

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

4. *Enclosed systems for conveying Highly Flammable Liquids.*— Wherever it is reasonably practicable, highly flammable liquids shall be conveyed within a factory in totally enclosed systems consisting of pipes 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 an equipment, pipe line, valve, joint or other part of a system, all practicable measures shall be taken to contain, drain 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 footwear having iron or steel nails or any other exposed ferrous materials which is likely to cause sparks by friction;
- (d) Smoking, lighting or carrying of material 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, frictions sparks, overheated surface of machinery or plants, chemical or physical-chemical reaction and radiant heat.

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

8. *Fire Fighting.*— In every factory where highly flammable liquid or flammable compressed gas is manufactured, stored, handled or used, 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 stipulations under the rules framed by the Central Government or the Government.

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 reasons, all or any of the

provision of this Schedule is not necessary for protection of the workers in the 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 process are carried on:

- (a) the production of iron castings or, as the case may be steel castings by casting in moulds made of sand, loam, moulding composition or other mixture of materials, or by shell moulding, or by centrifugal casting and process incidental to such production.
- (b) The production of non-ferrous casting by casting metal in moulds made of sands, loam, metal, moulding composition or other material or mixture of materials or by shell mouldings, die-casting (including pressure die-chasting), 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 and other similar products, and the stripping thereof;

but shall not apply with respect to-

- (a) any process with respect to the melting and manufacture of lead and the electric accumulators.
- (b) Any process for the purpose of a printing works; or
- (c) Any melting process in which metal is obtained by a reducing operation or any process incidental to such operation; or
- (d) The production of steel in the form of ingots; or
- (e) Any process in the course of the manufacture of solder or any process incidental to such manufacture ; or
- (f) The melting and casting of lead or any lead-based alloy for the production of ingots, billets, slabs or other similar products or the stripping thereof, or any process incidental to such melting, casting or stripping.

2. *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 or 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 casting other they have been dressed or fettled, or
 - (b) any operation which is a knock-out operation within the meaning of this Schedule;
- (d) ‘foundry’ means those parts of a factory in which the production of iron or steel or non-ferrous castings (not being the production of pig iron or the production of steel 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 dye

casting including pressure dye castings, together with any part of the factory in which any of the following processes are carried on as incidental processes in connection with and in the course of, such production, namely, the preparation and mixing of materials used in foundry process, the preparation of moulds and cores, knockout operations and dressing or fettling operations;

- (e) 'knock-out operation' means all methods of removing castings from moulds and the following operations, when done in connection therewith, namely, stripping, coring-out and the removal of runners and risers;
- (f) "pouring aisle" means an aisle leading from a man 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 of more than 5 per cent 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 fire clay
- (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.

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, table bins, bunkers or other receptacles shall be provided for the purpose of such storage.

5. *Construction of floors.*— (1) Floor of indoor workplaces in which the processes are carried on, other than parts which are of sand, shall have an even surface of hard material.

(2) No part of the floor or any such indoor workplace shall be of sand except where this is necessary by reason of the work done.

(3) All parts of the surface of the floor of any such indoor workplace which are of sand shall, so far as practicable, be maintained in an even and firm condition.

6. *Cleanliness of indoor workplaces.*— (1) All accessible parts of the walls of every indoor workplace in which the processes are carried on and of everything affixed to those walls shall be effectively cleaned by a

suitable method to a height of not less than 4.2 metres from the floor at least once in every period of fourteen months. A record of the carrying out of every such effective cleaning in pursuance this paragraph including the date (which shall be not less than five months not more than nine months after the last immediately preceding washing, cleaning or other treatment) shall be properly maintained.

(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 said; and the parts which are of sand be kept 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 at 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 on 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, whether constructed, reconstructed or converted for use as such after the making of this Schedule and so far as reasonably practicable, in every other workroom to which this paragraph applies, sufficient and clearly defined main gangways shall be provided and properly maintained which –

- (a) shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;
- (b) shall be kept, so far as reasonably practicable, free from obstruction;
- (c) if not used for carrying molten metal, shall be at least 920 millimetres in width;
- (d) if used for carrying molten metal shall be –
 - (i) where truck ladles are exclusively, at least 600 milliteres wider than the overall width of the ladle;
 - (ii) where hand shanks are carried by not more than two men, at least 920 millimetres in width;
 - (iii) where hand shanks are carried by more than two men, at least 1.2 metres in width; and
 - (iv) where used for simultaneous travel in both directions by men carrying hand shanks, at least 1.8 metres in width.

(2) In workroom to which this paragraph applies, whether constructed, reconstructed or converted for use as such after the making of this Schedule, sufficient and clearly defined pouring aisles shall be provided and properly maintained which –

- (a) shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;
- (b) shall be kept so far as 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 they 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 ladies 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 wide;

(3) Requirements of sub-paragraphs (1) and (2) shall not apply to any workroom or part of a workroom if, by reason of the nature of the work done therein, the floor of that workroom or, as the case may be, that part of a workroom has to be if 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 pout used for delivering molten metal, or within a distance of 2.4 metres from a vertical line passing through the nearest part of any ladle which is in position at the end of such a spout, except in either case, where it is necessary for the proper use or maintenance of a cupola or furnace that work should be carried out within that distance of that work, and it 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 in a ladle in position at the end of the spout.

10. *Dust and fumes.*— (1) Open coal, coke or wood fires shall not be used for heating or drying ladles inside a workroom unless adequate measures are taken to prevent, so far as practicable, fumes or other impurities from entering into or remaining in the atmosphere of the workroom.

(2) No open coal, coke or wood fires shall be used for drying moulds except in circumstances in which the use of such fires is unavoidable.

(3) Mould stoves, core stoves and annealing furnaces shall be so designed, constructed, maintained and worked as to prevent, so far as practicable, offensive or injurious fumes from entering into any workroom during any period when a person is employed therein.

(4) All knock-out operations shall be carried out-

- (a) in a separate part of the foundry suitably partitioned off, being a room or part in which, so far as reasonably practicable, effective and suitable local exhaust ventilation is provided, or where compliance with this requirement is not reasonably practicable, effective and suitable local exhaust ventilation ad a high standard of general ventilation are provided or
- (b) in an area of the foundry in which so far as reasonable practicable, effective and suitable local exhaust ventilation and a high standard of general ventilation and a high standard of general ventilation is provided.

(5) All dressing or felting operations shall be carried out –

- (a) in a separate room or in a separate part of the foundry suitably partitioned off; or
- (b) in an area of the foundry set part 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 plants used for the purpose of extracting, suppressing or controlling dust or fumes shall be properly, maintained.

(2) All ventilating plants used for the purpose of extracting, suppressing or controlling dust or fumes shall be examined and inspected once every week by a responsible person. It shall be thoroughly examined and tested by a competent person at least once in every period of twelve months; and particulars of the results of every such examination and test shall be entered in Form XXXV which shall be available for inspection by an Inspector-cum-Facilitator. Any defect found on any such examination and test shall be immediately reported in writing by the person carrying out the examination and test, to the occupier or manager of the factory.

12. *Protective equipment.*— (1) The occupier shall provide and maintain suitable protective equipment specified for the protection of workers.

- (a) suitable gloves or other protection for the hands for workers engaged in handling any hot material likely to cause damage to the hands by burn, scald or scar, or in handling pig iron, rough castings, or other articles likely to cause damage to the hands by cut or abrasion;
- (b) approved respirators for workers carrying out any operations creating a heavy dust concentration which cannot be dispelled quickly and effectively by the existing ventilation arrangements.

(2) No respirator provided for the purposes of clause 1 (b) and which has been worn by a person if it has not since been thoroughly cleaned and disinfected.

(3) Persons who for any length of 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; a
- (b) are engaged in, or in assisting with the pouring of molten metal; or
- (c) carry any 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 when worn by them prevent so far as reasonably practicable, risk of burns to their feet and ankles.

(4) Wherever practicable, 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 loss of the same.

13. *Washing and bathing facilities.*— (1) there shall be provided and maintained in clean state and good repair for the use of all workers employed in the foundry

(a) a wash place under cover with either

- (i) a trough with impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimeters for every 10 such person 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 centimeters; or
- (ii) at least one tap of the tap or stand pipe for every 10 such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 1.2 meters apart; and

(b) not less than one half of the total number of washing places provided under clause (a) shall be in the form of bath rooms.

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

(2) The facilities provided for the purposes of sub-paragraph (1) shall be placed in charge of a responsible person 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 materials and equipment so left on temporarily or occasionally) shall be so arranged and placed as to avoid unnecessary. 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 surface and shall, so far as reasonably practicable be kept free from obstruction.

17. *Medical facilities and records of examination and test.*— (1) The occupier of every factory to which the Schedule applies, shall-

- (a) employ a qualified medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector-cum-Facilitator; and
- (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in a clause (a)

(2) The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector-cum-Facilitator, which shall be kept readily available for inspection by the Inspector-cum-Facilitator.

18. *Medical examination.*— (1) Every worker employed in a foundry shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment. Such medical examination shall include pulmonary function tests and chest X-ray. No worker shall be allowed to work after unless certified for such employment by the authority or the agency as specified in sub-rule (3) of this rule.

(2) Every worker employed in the said processes shall be re-examined by the authority or the agency as specified in sub-rule (3) of this rule at least once in every twelve months. Such examination shall, wherever the authority or the agency as specified in sub-rule (3) of this rule consider appropriate, include all the tests as specified in sub-paragraph (1) except chest X-ray which will be once in every 3 years.

(3) The authority or the agency as specified in sub-rule (3) of this rule after examining a worker shall issue a Certificate of Fitness in Form XXXVI. The record of examination and re-examinations carried out shall be entered in the certificate and the certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including nature and the results of the test, shall also be entered by the authority or the agency as specified in sub-rule (3) of this rule in a health register in Form XXVIII.

(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 worker is no longer fit for employment in the said processes in the ground that continuance therein would involve special danger to the health of the worker, he shall made 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 considered that 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 under 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 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 XXVIII

Fireworks manufactories and match factories.

1. **Application.**— The provisions of this Schedule shall apply to all manufactories and processes incidental thereto carried on in any fireworks manufactory or a match factory and shall be in addition to and not in derogation of any provisions of any other Act or Rules that are applicable to fireworks manufactories and match factories.
2. **Definitions.**— For the purpose of this Schedule, unless there is anything repugnant in the subject or context,-
 - (a) “fire works manufactory” means any factory or such parts of any factory wherein the following chemicals or combination of chemicals and materials are being used for the manufacture of crackers, sparklers, caps. fuses, blasting powder and fireworks:-
 - (1) Saltpetre;
 - (2) Pyrotechnic Aluminium Powder;
 - (3) Barium Nitrate;
 - (4) Charcoal;
 - (5) Potassium Chloride;
 - (6) Red Phosphorus;
 - (7) Gum;

- (8) Dextrin;
 - (9) Strontium Nitrate;
 - (10) Magnesium Powder
 - (11) Copper Coated Wires;
 - (12) Steel Filings Or Iron Filings;
 - (13) G. I. Wire;
 - (14) Gun Powder (Black Powder);
 - (b) “**Match factory**” means any factory which manufactures safety matches or colour matches by the use of chemicals mentioned in clause (a);
 - (c) “**breathing apparatus**” means a device covering mouth or nose with necessary connections by means of which a person using it in a poisonous, asphyxiating or irritant atmosphere breathes ordinary air or any other suitable apparatus approved in writing by the Chief Inspector-cum-Facilitator in this behalf.
3. **Building.**— (a) The height of building of any fireworks manufactory or match factory shall not be less than 3 metres;
- (b) No building inside a fireworks manufactory shall have a first floor at any time;
 - (c) In match factory provided with a first floor, there shall be 2 staircases leading from the first floor to the ground floor irrespective of the number of persons employed on the first floor and one of the staircases shall be of masonry construction of non-flammable materials;
 - (d) All doors of workrooms shall open outwards and all the doorways shall be kept free from obstructions;
 - (e) All doors of workrooms shall not be less than 1.2 metres in width or less than 2 metres in height.
 - (f) The floors of all workrooms including mixing sheds shall be completely covered by a rubber sheet having a smooth surface and having a thickness of at least 3 m.m. If the floor cannot be covered by a single rubber sheet, more than one rubber sheet may be used so that each sheet is overlapped by the other at least 150 m.m; and
 - (g) mixing sheds shall be 30.5 metres away from all other sheds and be separated by baffle walls opposite each exit of the mixing shed.
4. **Housekeeping.**— (a) Every part of ways, works, machinery and plant shall be maintained in a clean and tidy condition.
- (b) Any spillage of materials shall be cleaned without delay, and
 - (c) Close platforms, passages and gangways shall be kept free of temporary obstructions.
5. **Electrical Equipment.**— (a) If, at any time, use of electricity is allowed in the match factory, all leads shall be in conduits with flameproof junctions;
- (b) Electrical supply shall never be through a lamp even with a non-conducting handle.
6. **Protective Measures.**— (a) Under no circumstances clothes made of artificial fibre like terylene, etc., be allowed inside the factory;
- (b) All workers shall be supplied with asbestos aprons especially to cover the chest, gonads and thighs;

- (c) Breathing apparatus shall be used in mixing sheds to avoid workers inhaling poisonous fumes in the event of an untoward reaction;
- (d) In mixing sheds where aluminum and magnesium powders are used, “anti-stat” foot-wear to combat static electricity shall be supplied; and
- (e) All protective equipments shall be maintained in an efficient condition and shall also be maintained in a clean and hygienic condition.

7. Match Factories.— In match factories -

- (a) the residue of the head composition shall not in any way be mixed with the residue of the friction composition;
- (b) the rooms comprising the two mixing departments, namely, (a) head composition and (b) friction composition, shall be entirely separated from each other and the drains from these two departments shall be kept entirely separate;
- (c) waste products containing the residues of the head composition and friction composition shall be kept and burnt separately;
- (d) department in which completed matches (matches with head on) are stored shall be separated from all other departments by means of fire-proof walls and doors providing adequate means of escape in case of fire;
- (e) splints, veneers and other materials in excess of the quantity required for the day’s manufacture shall be kept in separate rooms of the factory, where no manufacturing process is carried on. No manufactured material shall be stored anywhere in the factory compound for more than five days after the manufacture, except in the storage godowns:

Provided that nothing contained in this clause shall apply to splints and veneers in cases stored in peeling and box making departments;

- (f) store room for matches shall be entirely separated by fire-proof walls from the buildings used for manufacture;
- (g) the racks in the dipped splints room shall have sides stop and the rear part provided with non-inflammable materials;
- (h) the process of packing shall be done in an area away from the place of manufacture to the satisfaction of the Inspector; and
- (i) no child shall be employed or permitted to work directly connected with the manufacturing process upto final production of matchsticks.

8. Precaution to be taken in connection with manufacture of fuses used in crackers, etc.—

- (a) Bundles of fuses shall be handled by carrying and not dragging them on the floor.
- (b) Drying of fuses after wrapping shall be carried out on platforms away from workrooms.
- (c) Cutting shall be done by experienced workers employed only for this purpose and under proper supervision.
- (d) Cutting shall be done on a large masonry platform covered with a tarpaulin and kept free from grit and pebbles.
- (e) Cutting shall be done on a raised platform so that workers can work standing. Cutting must be done by placing the fuse on wooden sleepers, kept over blocks of wood, and brick shall not be used beneath the wooden reapers; and

- (f) Workers, while on dangerous operations, shall not wear clothing sewn with ferrous or steel buttons, buckles or attachments. They shall not carry on their person, iron knives, keys, etc.

Employment of pregnant women, lactating mother and adolescent person.- Pregnant women, lactating mother and adolescent persons shall not be employed on operation where chemicals are mixed and where fuses are cut. Children shall not be employed or permitted to work in the manufacturing process or any work or operation or process connected therewith or incidental thereto in fireworks manufactory.

9. **General.**— (a) No person, other than a factory worker and/or an inspecting officer or others connected with the manufacturing process, shall be allowed to enter the working area.

(b) Cardboard containers and trays without steel nails shall be used for storage and day-to-day working purposes.

(c) During the manufacture of fuses, only brass or non-ferrous knives shall be used and drying of fuses shall be away from all workrooms.

(d) Door mats shall be provided outside the workroom, near all drying platforms and where fuses are cut, for the workers to clean their feet.

(e) At no time, mixing materials shall exceed the quantity that is required for the manufacture of mixing for half an hour operation only.

(f) For filling up chemicals in the inner tubs of crackers, only aluminium or plastic rings shall be used and not galvanized iron rings.

(g) Buckets, containers, hoops, locks, nails, screws, bolts, nuts, knives, scissors, etc. made up of iron shall not be used within the factory premises.

(h) Wooden racks without iron nails shall be used for drying paper cap sheets, in a match process factory.

(i) Wooden racks used for drying paper cap sheets shall be provided with asbestos or other fire resistant sheets on the three sides leaving the front side open.

(j) Dried paper cap sheets shall be carried in wooden trays with four compartments (partitions), each compartment (partition) carrying a single sheet.

(k) Each manufacturing shed of a fire works shall have at least two doors facing each other. The doors provided to the work sheds of adjacent rows shall not face each other, and

(l) Not more than four persons shall be employed or allowed at any one time in any one building in which explosive is being manufactured.

11. Display of notices.— The following notices in the local language understood by the majority of workers shall be displayed at a conspicuous place in the factory:-

(a) “Smoking is strictly prohibited”

(b) “No one shall carry matches or other igniting materials into the factory.”

(c) “No worker shall be in a workroom or area where no work has been assigned to him.”

(d) “If anything untoward happens in any shed, all workers shall dash to the gates, which serve as out gates of the factory and in no circumstances be curious to see what has happened in the affected shed;”

(e) “Any spillage of materials should be cleaned without any delay;”

(f) “Wearing of clothes made of artificial fibre like terrene, terelene, etc., is prohibited. Clothing’s sewn with ferrous or steel buttons or buckles or attachments should not be worn;”

- (g) “Foot wears with iron nails should not be used; and
 - (h) “Workers should not carry with themselves iron knives and iron keys, etc.”
12. First-aid boxes.— (a) The materials prescribed under section 24 shall be kept in the First Aid Box or cupboard. In addition, four stretchers shall be available for every twenty persons employed in the premises.
- (b) Adequate amount of burn dressings and 24 ounces of coconut oil to be used, as the first remedy for burns shall be kept in the First Aid Box or cupboard; and
 - (c) persons who are in charge of First Aid Boxes or cupboards shall be those who possess the certificate granted by the institute recognized by the Chief Inspector-cum-Facilitator for rendering first aid.
13. Exemption.- If the Chief Inspector-cum-Facilitator is satisfied in respect of any factory or any process that, owing to the special conditions or special methods of work or by reason of the frequency of the process or for other reason, the application of all or any of the provisions of the Schedule to the factory or process, or to the persons employed in such factory or process is not necessary, he may, by order in writing, exempt such factory or part of the factory or process or any part of the factory or any person from all or any of these provisions subject to such conditions as he may deem expedient to ensure safety and health of the workers.

The Chief Inspector-cum-Facilitator may, at any time, in his discretion, revoke such order without assigning any reasons.

SCHEDULE – XXIX

Manipulation of stone or any other material containing free silica

- (1) Application.— This schedule shall apply to all factorys or parts of factorys 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 are adopted, 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,

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 rule 103 of these Rules:

Provided that such measures as abovesaid are not necessary if the process or operation itself is such that the level of dust created and prevailing does not exceed the permissible level referred to.

(4) Maintenance of floors.—

- (a) 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.
- (b) 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 young persons.— No young person shall be employed or permitted to work in any of the operations involving manipulation or at any place where such operations are carried out.

(6) Medical examination.—

- (a) Every worker employed in the processes specified in clause (1), shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment. Such medical examination shall include lung function test and other routine examinations. Such examination, wherever the authority or the agency as specified in sub-rule (3) of this rule considers appropriate, shall include chest X-ray.
- (b) Every worker employed in the said processes shall be re-examined by the authority or the agency as specified in sub-rule (3) of this rule at least once in every twelve months. Such re-examination shall include all the tests as specified in sub-clause (a).
- (c) The authority or the agency as specified in sub-rule (3) of this rule after examining a worker shall issue a Certificate of Fitness in Form XXXVI. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-clauses (a) and (b), including the nature and the results of the tests, shall also be entered by the authority or the agency as specified in sub-rule (3) of this rule

in a health register in Form XXVIII.

- (d) The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector-cum-Facilitator.
 - (e) If, at any time, the Medical Officer is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker he 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.
 - (f) No person who has been found unfit to work as said in sub-clause (e) 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.
- (7) 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 – XXX

Shipbuilding and ship-repairing

(1) *Application.*— This schedule shall apply as respects work carried out in any of the operations as defined in sub-rule (2).

(2) *Definitions.*— In this schedule unless there is anything repugnant to the subject or context.

(a) “certificate of entry” means a certificate which is given by a person who is competent to give such certificates, and certifies that he has in an adequate and suitable manner tested the atmosphere in the oil-tank or oil-tanks specified in the certificate and found that having regard to all the circumstances of the case, including the likelihood or otherwise of the atmosphere being or becoming dangerous, entry to the oil-tank or oil-tanks without wearing breathing apparatus may in his opinion be permitted;

(b) “hot work” means any work which involves-

(i) welding, burning, soldering, brazing, sand blasting or chipping by spark producing tools; or

(ii) use of non-flameproof electrical equipment or equipment with internal combustions engines:

and includes any other work which is likely to produce sufficient heat capable of igniting inflammable gases or vapours;

(c) “naked light certificate” means a certificate which is given by a person who is competent analyst and who is competent to give such certificate, and certifies that he has in an adequate and suitable manner, tested for the presence of inflammable vapour in the oil-tank, compartment, space or other part of the vessel specified in the certificate and found it to be free there from and that having regard to all the circumstances of the case including the likelihood or otherwise of the atmosphere becoming inflammable, the use of naked light, fires, lamps, or heated rivets or any hot work to be carried out may in his opinion be permitted in the oil-tank, compartment, space or other part of the vessel specified in the certificates;

(d) “oil” means any liquid which has a flash point view 132 degrees centigrade and also includes lubricating oils, liquid methane, liquid butane and liquid propane;

Explanations. — Flash point wherever it occurs in this rule shall be flash as determined by Abel Closed Cup or Pensky-Marten Closed Cup procedures as described in I.S. 1448-1960.

(e) “oil-tank” means any tank or compartment in which oil is or has been carried;

(f) “the operation” means-

(i) construction, reconstruction or breaking up of any ship or vessel, repairing, refitting, painting and finishing;

(ii) the scaling, scurfing or cleaning of its boilers (including combustion chambers or smoke bores); and

(iii) the cleaning of its bilges or oil-fuel tanks or any of its tanks last used for carrying oil.

For the purpose of this definition the expression “oil” means oil of any description whether or not oil within the meaning of foregoing definition of that expression;

(g) “ship and vessels” shall have the same meanings as assigned to them in the Merchant Shipping Act, 1958;

(h) “shipyard” means any temporary platform on or from which persons thereof, in which ships or vessels are constructed, reconstructed, repaired, refitted or finished;

(i) “stage” means any temporary platform on or from which persons employed perform work on connection with the operations, but does not include a boatswain’s chair;

(j) “staging” includes any stage, and any upright, thwart pin, wedge, distance piece, belt or other appliance or material, not being part of the structure of the vessel, which is used in connection with the support of any stage, and any guard-rails connected with a stage, and

(k) “tanks” means a vessel constructed or adopted for carrying a cargo of oil in bulk.

ACCESS AND STAGING

(3) *General access to vessels in a shipyard.*— All main gangways giving general access to a vessel in a shipyard, whether from the ground or from a wharf or quay and all cross gangways leading from such a main gangway on to the vessel, shall-

(a) be at least 60 centimeters wide;

(b) be securely protected on each side to a height of at least 90 centimeters by strongly constructed upper and lower hand-rails and by a secure toe-board projecting at least 15 centimetres above the floor;

(c) be of good construction, sound material and adequate strength;

(d) be stable and wherever practicable, of permanent construction;

(e) be kept in position as long as required; and

(f) maintained in good repair.

(4) *Access to dry dock.*—

(a) Every flight of steps giving access from ground level either to an alter or to the bottom of a dry dock shall be provided throughout on each side with a substantial hand-rail. In the case of an open side, secure fencing to a height of at least 90 centimeters shall be provided by means of upper and lower rails, taut ropes or chains, or by other equally safe means. For the purpose of this clause a flight of steps which is divided into two by a chute for materials, with no space between either side of the chute and the steps, shall be deemed to be one flight of steps.

(b) Such hand-rails and fencing as aforesaid shall be kept in position save when and to the extent to which their absence is necessary (whether or not for the purposes of the operations) for the access of persons, or for the movement of materials or vessels of the or for traffic or working, or for repairs, but hand-rails or fencing removed for any of these purposes shall be kept readily available and shall be replaced as soon as possible.

(5) *Access to vessels in dry rock.*—

(a) If a ship is lying in a dry dock for the purpose of undergoing any of the operations, there shall be provided as means of access for the use of workers at such times as they have to pass to, or from, the ship or dry dock-

i) where reasonably practicable one or more ship’s accommodation ladders; or

ii) One or more soundly constructed gangways or similar constructions.

(b) The means so provided shall be not less than 55 centimeters wide properly secured and fenced throughout on each side to a clear height of 90 centimeters by means of upper and lower rails, taut ropes or chains or by any other safe means, except that in a case of the ship’s accommodation ladder, such fencing shall be necessary on one side only provided where the other side is properly protected by the ship’s side.

(c) Where at any dry dock, there is a gangway giving access from an altar of the dock to a vessel which is in the dock for the purpose of undergoing any of the operations, and the edge of the altar is unfenced, adequate hand-holds shall be available for any length of the alter which workers commonly use when passing between the gangway and the nearest flight of steps which gives access to ground level.

(6) *Access to and from bulwarks.*— Where there is gangway leading on a bulwark of a vessel there shall be provided. -

(a) wherever practicable, a platform at the inboard end of the gangway with safe means of access therefrom to the docks; or

(b) where such a platform is not practicable, a second gangway or stairway leading from a bulwark on the dock which are either attached to the first mentioned gangway or placed continuous to it, in which case means of access, securely protected by fencing, shall be provided from one to the other.

(7) *Access to staging, etc.*—

(a) Where outside staging is erected in a shipyard, there shall be provided sufficient ladders giving direct access to the stages having regard to the extent of the staging and to the work to be done.

(b) Where a vessel is under construction or reconstruction and workers are liable to go forward or aft or athwart ship across or along uncovered deck-beams, or across or along floors, sufficient planks shall be provided on these deck-beams or on these floors for the purpose of access to or from places of work, and sufficient and suitable portable ladders shall be provided so as to give access either from the ground or outer bottom plating to the top of the floor.

(c) Without prejudice to any other provision in this rule requiring a greater width, no footway or passageway constructed of planks shall be less than 45 centimeters wide.

(8) *Ladders.*—

(a) Subject to clauses (b) and (c) of this sub-rule, every ladder affords a means of access, communication or support to a person shall-

(i) be soundly constructed and properly maintained; and

(ii) be of adequate strength for the purpose for which it is used and;

(iii) be securely fixed either-

(aa) as near its upper resting place as possible, or

(bb) where this is impracticable, as it bases or where such fixing is impracticable a person shall be stationed at the base of the ladder when in use to prevent it from slipping; and

(iv) unless there is other adequate hand-hold extend to a height of at least 75 centimeters above the place of landing or the highest rung to be reached by the foot of any person working on the ladder, as the case may be, or, if this is impracticable, to the greatest practicable height;

(b) Requirements (iii) and (iv) of the preceding clause of this sub-rule shall not apply to fixed ladders of a ship which do not comply with requirements (i) and (ii) of this clause.

(c) Any worker who removes any ladder and sets it up in a new position shall, as regards that ladder, comply with requirements (iii) of clause (a) of this sub-rule.

(d) Rope ladders shall provide foot-hold of a depth including any space behind the ladder of not less than 12 centimeters and, so far as is reasonably practicable, suitable provision shall be made for preventing such ladders from twisting.

(9) *Lashing of ladders.*—

(a) A fiber rope, or a rope made with strands consisting of wire cords covered with fibre, shall not be used to secure a ladder used for the purpose of the operations.

(b) A wire rope shall not be used to secure any such ladder unless its ends are ferruled, but this provision shall not apply in the case of an end which is so situated or protected that a person using the ladder is not liable to come into contact with it so as to suffer injury.

(10) *Material for staging.*—

(a) A sufficient supply of sound and substantial material and appliances shall be available in convenient place or places for the construction of staging.

(b) All planks and other materials and appliances intended to be used or re-used for staging shall be carefully examined before being taken into use or re-use in any staging. Every examination required by this clause shall be carried out by a person competent for the purpose.

(11) *Staging dry dock altars and shoring sills.*—

(a) All staging and every part thereof shall be of good constructions, of suitable and sound material and of adequate strength for the purpose for which it is used and shall be properly maintained, and every up-right and thwart shall be kept so fixed, secured or places in position as to prevent so far as is reasonably practicable, accidental displacements.

(b) All planks forming stages shall be securely fastened to prevent, them from slipping unless they extend 45 centimeters or more beyond the inside edge of the thwart or support on which they rest.

(c) All staging used in connection with the operations shall be inspected perform work in connection from use, and thereafter at regular and frequent intervals, by a responsible person.

(d) All dry dock altars and shoring sills on or from which persons perform work in connections with the operations shall be sound construction and properly maintained.

(e) All parts of stages, all parts of footways or passageways constructed of planks, and all parts of dry dock altars or shoring sills, being parts on or from which persons perform work in connection with the operations, shall so far as is reasonably practicable, be kept clear of all substances likely to make foot-hold or hand-hold insecure.

(12) *Upright used for hoisting block.* —

(a) If any upright forming part of staging is used as a fixing for a pulley block for hoisting materials.

(i) It shall be properly housed in the ground or shall otherwise be adequately secured so as to prevent it from rising; or

(ii) It shall be suitably protected against damage by the action of the chain or wire or other means of securing the pulley block to the upright.

(b) No upright forming part of staging shall be used as an anchorage for a load pulley block, unless the upright is not likely to be displaced by such use.

(13) *Support of stage on planks.* — Planks supported on the rungs of ladders shall not be used to supported stages.

(14) *Suspended stages.*—

(a) Stages suspended by ropes or chains shall be secured as far as possible so as to prevent them from swinging.

(b) A fibre rope, or a rope made of strands consisting of wire cores covered with fibre, shall not be used for suspending a stage except that fibre ropes may be used in the case of a stage or which the suspension ropes are revved through blocks.

(c) Chains, ropes, blocks and other gear used for the suspension of stages shall be of sound material, adequate strength and suitable quality, and in good condition.

(d) Appropriate steps shall be taken to prevent ropes or chains used for supporting a stage from coming into contact with sharp edges of any part of a vessel.

(15) *Boatswains' chairs.*—

(a) Boatswains' chair and chains, ropes or other gear used for their suspension shall be of sound material, adequate strength and suitable quality and the chains, ropes or other gear shall be securely attached.

(b) Suitable measures shall be taken to prevent where possible.

(i) The spinning of a boatswain's chair;

(ii) the tipping of a boatswain's chair and

(iii) any occupant falling therefrom.

(16) *Rising stages.*— All planks forming a rising stage at the bow end of a vessel shall be securely fastened to prevent them from slipping.

(17) *Width of staging.*— Without prejudice to the other provisions of these sub-rules, all stages shall be of sufficient width as is reasonable in all the circumstances of the case to secure the safety of the persons working thereon.

(18) *Stages from which a person is liable to fall more than 2 metres or into water.*—

(a) This sub-rule applies to stages from which a person is liable to fall a distance of more than 2 metres or into water in which there is a risk of drowning

(b) Every stage to which this sub-rule applies –

(i) shall so far as is reasonably practicable be closely boarded, planked or plated;

(ii) shall be so constructed or placed that a person is not liable to fall as aforesaid through a gap in the staging not being a gap necessary and no large than necessary having regard to the nature of the work being carried on; and

(iii) shall be at least 45 centimetres wide.

(c) Every side of a stage to which this sub-rule applies shall –

(i) if it is not a side immediately adjacent to any part of a vessel, be fenced (subject to the provisions of clauses (d) to (g) of this sub-rule) with a guard-rail or guard-rails to a height of at least 1 metre above the stage, which rail or rails shall be so placed as to prevent so far as practicable the fall of persons from the stage or from any raised standing place on the stage; or

(ii) if it is a side immediately adjacent to any part of a vessel, be placed as near as practicable to that part having regard to the nature of the work being carried on and to the nature of the structure of the vessel.

(d) In the case of stages which are suspended by ropes or chains, and which are used solely for painting, the fencing required by sub-clause (i) of the preceding clause may be provided by means of taut guard-rope or taut guard-ropes.

(e) No side of a stage or, as the case may be, no part of the side of a stage need be fenced in pursuance of clause (c) (i) of this sub-rule in cases where, and as long as, the nature of the work being carried on makes the fencing of that side or, as the case may be, that part impracticable.

(f) Guard-rails provided in pursuance of clause (c) (i) of this sub-rule may be removed for the time and to the extent necessary for the access of persons or for the movement of materials, but guard-rails removed for either of these purposes shall be replaced as soon as practicable.

(g) Where it is not reasonably practicable to comply with the provisions of clause (c)(i) of this sub-rule, workers shall be provided with suitable safety belts equipped with life lines which are secured with a minimum amount of slack to a fixed structure.

Further precautions against falls of persons, materials and articles.

(19) *Fencing of dry docks.*—

(a) Fencing shall be provided at or near the edges of a dry dock at ground level, including edges above flights of steps and chutes for materials. The height of such fencing shall be no point be less than 1 metre.

(b) Such fencing as aforesaid shall be kept in position save when and to the extent to which its absence is necessary (whether or not for the purposes of the operations) for the access of persons, or for movement of materials or vessels or for traffic or working, or for repair, but fencing removed for any of these purposes shall be kept readily available and shall be replaced as soon as practicable.

(20) *Protection of openings.*—

(a) Every side or edge of an opening in a deck or tank top of a vessel, being a side or edge which may be a source of danger to workers shall, except where and while the opening is securely covered or where the side or edge is protected to a height of not less than 75 centimetres by a coming or other part of the vessel, be provided with fencing to a height of not less than 90 centimetres above the edge or side and such fencing shall be kept in position save when and to the extent to which its absence is necessary (whether or not for purposes of the operations) for the access of persons, or for the movement of materials, or for traffic or working, or for repair, but fencing removed for any of these purposes shall be kept readily available and shall be replaced as soon as practicable.

(b) Clause (a) of this sub-rule shall not apply –

(i) to that part of an opening in a deck or tank top which is at the head of a stairway or ladder-way intended to be used while the operations are being carried on; or

(iii) to parts of a deck or tank top which are intended to be plated, except such parts where the plating has necessarily to be delayed so that the opening may be used for the purpose of the operations.

(21) *Fall or articles from stage.*— Where workers are at work outside a vessel on a stage adjacent to part of the structure of the vessel and other workers are at work directly beneath that stage, the planks of the stage shall be in such a position that on article liable to cause injury to the workers can fall between the planks, and the inside plank of the stage shall be placed as near as practicable to the structure of the vessel having regard to the nature of the work being carried on.

(22) *Boxes for rivets, etc.*—

(a) Boxes or other suitable receptacles for rivets, nuts, bolts and welding rods shall be provided for the use of workers.

(b) It shall be the duty of the workers to use, so far as practicable, the boxes or other suitable receptacles so provided.

(23) *Throwing down materials and articles.*—

(a) Subject to the provisions of clause b) of this sub-rule, parts of staging, tools and other articles and materials shall not be thrown down from a height where they are liable to cause injury to workers, but shall be properly lowered.

(b) When the work to be done necessarily involves the throwing down from a height of articles or materials, conspicuous notice shall be posted to warn persons from working or passing underneath the place from which articles or materials may fall, or the work shall be done under the direct supervision of a competent person in authority.

(c) No person shall throw down any articles or materials from a height except in accordance with the requirements of this sub-rule.

(24) *Loose articles or materials.*— So far as practicable, steps shall be taken to minimize the risk arising from loose articles or materials being left lying about in any place from which they may fall on workers or persons passing underneath.

RAISING AND LOWERING

(25) *Secureness of loads.*—

(a) Loads shall be securely suspended or supported whilst being raised or lowered, and all reasonable precautions shall be taken to prevent danger from slipping or displacement.

(b) Where by reason of the nature or position of the operations load is liable, whilst being move by a lifting machine or lifting tackle, to come into contact with any object so that the object may become displaces, special measures shall be adopted to prevent the danger so far as is reasonably practicable.

(26) *Support of lifting machines and lifting tackle.*— Every lifting machine and all lifting tackles shall be adequately and suitably supported or suspended having regard to the purpose for which it is used.

(27) *Wire ropes with broken wires.*— No wire rope shall be used if in any length of ten diameters the total number of visible broken wires exceeds five per cent of the total number of wires, or if the rope shows signs of excessive wear or corrosion or other serious defect.

(28) *Splices in wire ropes.*— A thimble or loop splice made in any wire rope shall have at least three tucks with a whole strand of the rope and two tucks with one half of the wires cut out of each strand. All tucks shall be against the lay of the rope.

Provided that this sub-rule shall not operate to prevent the use of another form of splice which can be shown to be as efficient as the form of splice specified I this sub-rule.

(29) *Knotted chains, etc.*—

(a) No chain or wire rope shall be used when there is a knot tied in any part thereof.

(b) No chain which is shortened or joined to another chain by means of bolts and nuts shall be used;

Provided that this does not exclude the use of a chain bolted or joined to another chain by an approved and properly constructed attachment.

(30) *Precautions against damage to chains and ropes.*— Appropriate steps shall be taken to prevent, so far as practicable, the use of chains or ropes for raising or lowering in circumstances in which they are in or liable to come into contact with sharp edges of plant, materials or loads, or with sharp edges of any part of the vessel on which work is being carried out.

(31) *Loads on lifting appliances.*— No load shall be left suspended from a lifting appliance other than a self-sustaining, manually operated lifting appliance unless there is a competent person in charge of the appliance while the load is so left.

(32) *Heavy loads.*— Where there is reason to believe that a load being appliance other than appliance weighs more than 20 tonnes its weight shall be ascertained by means of an accurate weighing machine or by the estimation of a person competent for the purpose, and shall be clearly marked on the load;

Provided that this sub-rule shall not apply to any load lifted or lowered by a crane which has either a fixed or a derricking jib and which is lifted with an approved type of indicator in good working order which-

- (a) indicates clearly to the driver or person operating the crane when the load being carried approaches the safe working load of the crane for the radius of the jib at which the load is carried; and
- (b) gives an efficient sound signal when the load moved is in excess of the safe working load of the crane at that radius.

Precautions against asphyxiation, injurious fumes or explosions.

(33) *Certification for entry into confined spaces likely to contain dangerous fumes.*— A space shall not be certified under section 36(3) (a) of the Act unless.

- (a) effectively steps have been taken to prevent any ingress of dangerous fumes;
- (b) any sludge or other deposit liable to give off dangerous fumes has been removed and the space contains no other material liable to give off dangerous fumes; and
- (c) the space has been adequately ventilated and tested for dangerous fumes and has a supply of air adequate for respiration.

Provided that no account shall be taken for the purposes of clause (b) of this sub-rule of any deposit or other material liable to give off dangerous fumes in significant quantities.

(34). *Precautions against shortage of oxygen.*— No person shall enter or remain in any confined space a vessel, being a confined space in which there is reason to apprehend that the proportion of oxygen in the air is so low as to involve risk of persons being overcome, unless either-

- (a) The space has been and remains adequately ventilated and a responsible person has tested it and certified that it is safe for entry without breathing apparatus; or
- (b) He is wearing a suitable breathing apparatus and a safety belt securely attached to a rope, the free end of which is held by a person standing outside the confined space.

(35) *Rivet fires.*—

(a) Rivet fires shall not be taken into or used in or remain in any confined space or board or in a vessel unless there is adequate ventilation to prevent the accumulation of fumes.

(b) No person employed shall move a rivet fire into any confined space on board or in a vessel unless he has been authorised by his occupier to move the fire into that space.

(36) *Gas cylinders and acetylene generators.*-

- (a) No cylinder which contains or has contained oxygen or any flammable gas or vapour at a pressure above atmospheric pressure and no acetylene generating plant, shall be installed or placed within 5 meters of any substantial source of heat (including any boiler or furnace when alight) other than the burner or blowpipe operated from the cylinder or plant.
- (b) No such cylinder and no such plant shall be taken below the weather deck in the case of a vessel undergoing repair, or below the topmost completed deck in the case of a vessel under construction, unless it is installed or placed in a part of the vessel which is adequately ventilated to prevent any dangerous concentration of a gas or fumes.

(37) *Further provision as to acetylene generators.*—

- (a) The following provision shall be observed as respects any acetylene generating plant: -

- (i) no such plant shall be installed or places in any confined space unless effective and suitable provision is made for securing and maintaining the adequate ventilation of that space so as to prevent, so far as practicable, any dangerous accumulation of gas;
- (ii) any person attending or operating any such plant shall have been fully instructed in its working and a copy of the maker's instruction for that type of plant shall be constantly available for his use;
- (iii) The charging and cleaning of such plant shall so far as practicable be done during daylight; and
- (iv) Partly spent calcium carbide shall not be recharged into an acetylene generator.

(b) No person shall smoke or strike a light or take a naked light or a lamp in or into any acetylene generator house or shed or in or into dangerous proximity to any acetylene generating plant in the open air or on board a vessel:

Provided that this clause shall not apply as respects a generator in the open air or on board a vessel which, since it was last charged, has been thoroughly cleaned and freed from any calcium carbide and acetylene gas.

(c) A prominent notice prohibiting smoking, naked lights and lamps shall be exhibited on or near every acetylene generating plant whilst it is charged or is being charged or is being cleaned.

(38) *Construction of plant for cutting, welding or heating metal.*—

- (a) Pipes or hoses for the supply of oxygen or any flammable gas or vapour to any apparatus for cutting, welding or heating metal shall be of good construction and sound materials and be properly maintained.
- (b) Such pipes or hoses shall be securely attached to the apparatus and other connections by means by suitable clips or other effective appliances.
- (c) Efficient reducing and regulating valves for reducing the pressure of the gases shall be provided and maintained in connection with all cylinders containing oxygen or any flammable gas or vapour at a pressure above atmospheric pressure while the gases or vapour from such cylinders are being used in any process of cutting, welding, or heating metal.
- (d) Where acetylene gas is used for cutting, welding or heating metal.
 - (i) A properly constructed and efficient back pressure valve and flame arrester shall be provided and maintained in the acetylene supply pipe between each burner or blow-pipe and the acetylene generator, cylinder or container from which it is supplied, and shall be placed as near as practicable to the burner or blow-pipe, except that these requirements shall not apply where an acetylene cylinder serves only one burner or blow-pipe; and
 - (ii) Any hydraulic valve provided in pursuance of the preceding sub-clause shall be the duty of every worker who used the burner or blow-pipe to inspect they hydraulic valve accordingly.

(e) The operating valves of burners or blow-pipe to which oxygen or any flammable gas or vapour is supplied for the purpose of cutting, welding or heating metal shall be so constructed, or the operating mechanism shall be so protected, that the valves cannot be opened accidentally.

(39) *Precautions after use of apparatus for cutting, welding or heating metal.*

- (a) In the case of apparatus on board a vessel and used for cutting, welding or heating metal with the aid of oxygen or any inflammable gas or vapour supplied at a pressure above atmospheric pressure, the precautions specified in the following clauses of this sub-rule shall be taken when such use ceases

for the day or for a substantial period and the apparatus is to be left on board, but need not be taken ratus is to be left on board, but need not be taken when such use is discontinued merely during short interruption of works. The requirements in clauses (c) and (d) of this sub-rule shall not apply during a meal interval provided that responsible person is places in charge of the plant and equipment referred to therein.

- (b) Supply valves of cylinders, generators and gas mains shall be securely closed and the valve key shall be kept in the custody of a responsible person.
- (c) Movable pipes or hoses used for conveying oxygen or inflammable gas or vapour and the welding and cutting torches shall, in the case of a vessel undergoing construction, be brought to the topmost completed deck, or in the case of a vessel undergoing repair, to weather deck or in either case to some other place of safety which is adequately ventilated to prevent any dangerous concentration of gas or fumes:

Provided that where, owing to the nature of the work, it is impracticable to comply with the foregoing requirements of this clause, the pipes or hoses shall be disconnected from cylinders, generators or gas main, as the case may be.

- (d) When cylinders or acetylene generating plant have been taken below deck as permitted by clause (b) of this sub-rule (36) such cylinders or acetylene generating plant shall be brought to a weather deck or, in the case of a vessel undergoing construction, to the topmost completed deck.

(40) *Naked lights and hot work oil-carrying vessels.*—

(a) Subject to the provisions of clause (b) of this sub-rule and to the provision of sub-rule (48) and without prejudice to the provisions of sub-rules (46) and (47), no naked light, fire or lamp (other than a safety lamp of a type approved for the purpose of this sub-rule)

- (i) shall be permitted to be applied to, or to be in, or any hot work permitted to be carried out in any part of tanker, a naked light certificate has been obtained and is in force in respect of those parts of the tanker for which, in the opinion of a competent analyst, a naked light certificate is necessary.

Provided that a naked light, fire or lamp of a kind specified in writing by a competent analyst may be applied to, or any hot work of a type specified by him carried on, any part of the tanker so specified;

- (ii) shall be permitted-

(aa) to be in any oil-tank on board or in a vessel in which oil-tank the oil last carried was oil having a flash point of less than 23 degrees centigrade or was liquid methane, liquid propane or liquid butane, nor any hot work permitted to be carried out in any such oil tank or vessel, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that oil-tank and of any oil-tank, compartment or space adjacent thereto;

(bb) to be applied to the outer surface of any oil-tank on board or in a vessel in which oil-tank the oil last carried was such oil as aforesaid nor any work of such a nature which is likely to produce sufficient heat capable of igniting inflammable gases or vapours permitted to be carried out on the outer surface of such oil-tank or vessel, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that oil-tank;

(cc) to be applied to the outer surface of, or to be in, any compartment or space adjacent to an oil-tank on board or in a vessel in which oil-tank the oil last carried was such oil as aforesaid, nor any hot work permitted to be carried out in such compartment or space as aforesaid, nor any work of such nature which is likely to produce sufficient heat capable of igniting inflammable gases or vapour permitted to be carried out on the outer surface of such compartment or space, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that compartment or space:

Provided that where in any such case referred to in paragraphs (aa), (bb), or (cc) of this sub-clause a competent analyst has certified that daily naked light certificates are unnecessary or are necessary only to a specified extent, such a daily certificate need not be obtained or, as the case may be, need only be obtained to the specified extent;

(iii) shall be permitted to be applied to the outer surface of, or to be in, any oil-tank on board or in a vessel nor any hot work permitted to be carried out in any such oil-tank or vessel, nor any work of such nature which is likely to produce sufficient heat capable of igniting inflammable gases or vapours, permitted to be carried out on the outer surface of the oil-tank or vessel, unless, since oil was last carried in that oil-tank, a naked light certificate has been obtained and is in force in respect of that oil-tank;

(iv) shall be permitted to be applied to the outer surface of, or to be in, any compartment or space adjacent to an oil-tank on board or in a vessel nor any work of such nature which is likely to produce sufficient heat capable to igniting inflammable gases or vapours, permitted to be carried out on the outer surface of any such compartment or space, unless, since oil was last carried as cargo in that oil-tank, a naked light certificate has been obtained and is in force in respect of that compartment or space.

(b) Notwithstanding anything in clause (a) of this sub-rule, heated rivets may be permitted in force place without naked light certificate being in force in respect of that place if expressly so authorised by a competent analyst who certifies that after adequately and suitable testing, he is satisfied having regard to all the circumstances of the case, including the likelihood or otherwise of the atmosphere becoming inflammable, that the place is sufficiently free from inflammable vapour; but such heated rivets shall, where practicable, be passed through tubes.

(c) No person shall introduce, have or apply naked light, fire or lamp (other than safety lamp of a type approved for the purpose of this sub-rule) into, in or to any place where they are prohibited by this sub-rule.

(d) No person shall carry out hot work or any work of such nature which is likely to produce sufficient heat capable of igniting inflammable gases or vapours, in any place or any surface where they are prohibited by this sub-rule.

(e) In this sub-rule the expression 'competent analyst' means an analyst who is competent to give a naked light certificate.

(41) Entering oil-tanks.—

(a) No person (other than an analyst entering with a view to issuing a certificate of entry) shall, unless he is wearing a breathing apparatus of a type approved for the purpose of this sub-rule, enter or remain in an oil-tank on board or in a vessel unless, since the oil-tank last contained oil, a certificate of entry has been obtained and is in force in respect of the tank.

(b) Without prejudice to clause (a) of this sub-rule, no person (other than an analyst entering as aforesaid) shall be allowed or required to enter or remain in oil-tank on board or in a vessel in which oil-tank the oil last carried was oil having a flash point of less than 23 centigrade unless, since the oil-tank last contained oil, an analyst has certified that the atmosphere is sufficiently free from flammable mixture.

(c) The provisions of this sub-rule are without prejudice to the requirements of sub-rule (34).

(42) Duration of certificates.— Any naked light certificate or certificate of entry may be issued subject to a condition that it shall not remain in force after a time specified in the certificate.

(43) Posting of certificates.— Every occupier for whom a naked light certificate or a certificate of entry is obtained shall ensure that the certificate or a duplicate thereof is posted as soon as may be and remains posted in a position where it may be conveniently read by all persons concerned.

(44) Maintaining safe atmosphere.—

(a) When conditions in an oil-tank is respect of which a naked light certificate has been issued, are such that there is a possibility of oil vapour being released from residues or other sources, test shall be carried out by a competent analyst at such intervals as may be required so as to ensure that the conditions in the tank are maintained safe.

(b) Whenever hot work is carried on a naked light, fire or lamp is allowed to be, on the weather deck over spaces, in respect of which a naked light certificate has not been issued, all covers of manholes and opening on deck and all valves (except those which are connected to high vent pipes) connecting the weather deck with the said spaces, shall be closed.

(c) A record of all the tests carried out for the purpose of sub-rules (34), (40) and (41) shall be maintained in a register which should furnish the date, time, location and results of the tests.

(45) Cleaning of oil-tanks.—

(a) Subject to the provisions of sub-rule (48), before a test for inflammable vapour is carried out with a view to the issue of a naked light certificate for the purposes of sub-rule (40) in respect of an oil-tank on board or in a vessel, that oil-tank shall, since oil was last introduced into the tank, be cleaned and ventilated in accordance with clause (b) of this sub-rule.

(b) The said cleaning and ventilation shall be carried out by the following methods:-

(i) the oil-tank shall be treated in such manner and for such period as will ensure the vaporization of all volatile oil;

(ii) all residual oil and any sludge or other deposit in the oil-tank shall be removed therefrom;

(iii) after the oil-tank has been so cleaned—

(aa) all covers of manholes and other opening therein shall be removed and it shall be thoroughly ventilated by mechanical or other efficient means with a view to remove all oil vapour; and then

(bb) the interior surfaces, if any deposit remains thereon, shall be washed or scraped down.

(46) Invalidation of certificates.—

(a) If during the course of work in, or to the outer surface of, any part of a tanker or aircraft carrier, any pipe or tank joint is opened or broken or any other event occurs so that there is a risk of oil- vapour entering or arising in that part of the tanker or aircraft carrier, that work shall be suspended and thereafter any certificate of entry previously issued in respect of any oil-tank in that part and any naked light certificate previously issued in respect of that part shall be no longer in force.

(b) If (in the case of a vessel other than a tanker or aircraft carrier) during the course of work in any oil-tank or in any compartment or space adjacent thereto, any pipe or tank joint is opened or broken or any other event occurs so that there is a risk of oil vapour entering or arising in the oil-tank or in any compartment or space adjacent thereto that work shall be suspended and thereafter any certificate of entry previously issued in respect of the oil-tank and any naked light certificate previously issued in respect of the oil-tank or any compartment or space adjacent thereto shall be no longer in force.

(47) Provisions as to work in other compartments or spaces.—

(a) without prejudice to the other provisions of this rule, if the presence of oil in such quality and in such quantity and in such position as to be likely to give rise to fire or explosion is detected in any part of a vessel, being a part to which this sub-rule applies and in which repairs of the following kind are to be or are being undertaken, that is to say, repairs involving the use of a naked light, fire or lamp {other than a safety lamp of a type approved for the purposes of sub-rule (40)}, or involving hot work, such repairs shall not be started or continued until a naked light certificate has been issued or, as the case may be, reissued in respect of that part of the vessel.

(b) This sub-rule shall apply to bilges, shaft tunnels, pump rooms and to compartments and spaces other than those to which clause (a) (iv) of sub-rule (40) applies.

(48) *Exemptions.*— If the Chief Inspector-cum-Facilitator is satisfied, by a reasons, shall be the nature of the work and the circumstances in which it is carried out, that any provisions of sub-rules (33) to (45) or part thereof can be suspended or relaxed without danger to the health or safety of any person, he may grant the suspension or relaxation in writing specifying such conditions as he may consider fit. Any such suspension or relaxation may be revoked at any time.

PRECAUTIONS IN USE OF ELECTRICAL ENERGY

(49) *Earthing.*— Electrical energy other than generated by an independent generating unit on board shall not be taken for use, or used in, or in connection with any of the operations unless the body of the ship is securely earthed in such a manner as to ensure an immediate and safe discharge of energy to the earth. A ship or vessel shall not be considered as security earthed for the purpose of this sub-rule only on account of its being partly submerged in water.

(50) *Arc welding.*— (a) Electric arc welding shall not be carried on in connection with any of the operations unless separate and fully insulated welding return conductors as the case may be, of adequate electrical capacity are provided for return of the current to the transformer or generator of the welding set.

(b) The return end of the source of the welding current shall not be earthed.

(c) All work on which welding is carried on shall be securely earthed independently to an earth electrode by means of conductor or conductors as the case may be, of adequate capacity, unless all such work is conducted to any structure of the ship or vessel in such a manner as to ensure adequate connection to earth as aforesaid.

(51) *Cutting of energy in certain cases.*— Electrical energy shall be cut off from all portable electric tools and manual electrode holders within any tank, compartment or space referred to in sub-rules (34) and (40) or in any other confined space during all times when such tools or holders are not in operations:

Provided that for determining whether any such portable electric tool or electrode holder is not operation, no account shall be taken of brief interruptions of work occurring during normal working:

Provided further that energy may not be cut off from any such equipment's of a responsible person is left in charge of it in such tank, compartment or space concerned.

Provided further that cutting of all electrical energy by operation of any switch or control provided on the portable tool or electrodes holder itself should not be taken as fulfilling the requirements of this sub-rule.

MISCELLANEOUS SAFETY PROVISIONS

(52) *Lighting.*— All parts of a vessel and all other places where the operations are being carried on, and all approaches shall be such parts and no places to which a worker may be required to proceed in the course of his employment, shall be sufficiently and suitably lighted. In providing such lighting, due regards shall be given to avoidance of glare and formation of shadows, to the safety of the vessel and cargo, of the navigation of other vessels, and to any local statutory requirements as to the lighting of the harbour or dock.

(53) *Work in boilers, etc.*— (a) No work shall be permitted in any boiler, boiler-furnace or boiler-flue until it has been sufficiently cooled to make work conditions safe for the workers.

(b) Before any worker enters any steam boiler which consist of a range of two or more steam boiler.

(i) all inlets through which steam or hot water might otherwise enter the boiler from any other part of the range shall be disconnected from that part; or.

(ii) all valves or taps controlling such entry shall be closed and securely locked.

(c) While workers remain in any steam boiler to which clause (b) of this sub-rule applied, all such inlets as are referred to in that clause shall remain disconnected or all such valves or taps as are herein referred to shall remain closed and securely locked.

(d) No worker shall be allowed or required to enter or remain in, and no person shall enter or remain, in any steam boiler to which clause (b) of this sub-rule applies unless the provisions of that clause are being complied with.

(54) *Hatch beams.*— The hatch beams of any hatch in use for the operations shall, if not removed be adequately secured to prevent their displacement.

(55) *Jumped-up bolts.*— Bolts which have been jumped-up and re-screw securing plates on the sides of vessels, and no worker shall use such belts for this purpose.

(56) *Work in or on all boats:*—

(a) Before workers are permitted to work in or on any life boat, either stowed or in suspended position, precautions shall be taken to prevent the boat from falling due to accidental tripping of the releasing gear or movement of the devits, and capsizing of the boat if in checks.

(b) Workers shall not be permitted to remain in life boats while the life boats are being hoisted into final stowed position.

PROTECTIVE WEAR

(57) *Hand protection.*— Adequate protection for the hands shall be available for all workers when using cutting or welding apparatus to which oxygen or any inflammable gas or vapour is supplied at a pressure greater than atmospheric pressure or when engaged in machine caulking or machine riveting or in transporting or stacking plates or in handling plates at machines.

(58) *Protection in connection with cutting or welding.*—

(a) Suitable goggles fitted with tinted eye-pieces shall be provided and maintained for all persons employed when using cutting or welding apparatus to which oxygen or any flammable gas or vapour is supplied at a pressure above atmospheric pressure.

(b) There shall be provided and maintained for the use of all persons employed when engaged in the process of electric welding-

(i) suitable helmets or suitable head-shields or suitable hand shields to protect the eyes and face from hot metal and from rays likely to be injurious and

(ii) suitable gauntlets to protect the hands and fore-arms from hot metal and from rays likely to be injurious.

(c) When electric welding is in progress at any place and persons other than those engaged in that process are employed in a position where the rays process are employed in a position where the rays are likely to be injurious to their eyes, screens, shall where practicable, be provided at that place for the protection of those persons. Where it is not practicable to provide effective protection of these persons by screening, suitable goggles shall be provided for their use.

(59) *Eye protection for other processes.*— Suitable goggles or effective screens shall be provided to protect the eyes of all workers in any of the following processes:

(a) the cutting out or cutting off of cold rivets or bolts from boilers or other plant or from ships;

(b) the chipping, scaling or scurfing of boiler or ship's plates;

(c) drilling by means of portable machine tools and

(d) dry grinding of metals;

(60) *Head protection.*— When workers are employed in areas where there is danger of falling objects they shall be provided with suitable safety helmets.

(61) *Safety belts and life lines.*—

(a) Whenever any worker is engaged on work at a place from which he is liable to fall more than 2 meters, he shall be provided with safety belts equipped with life lines which are secured with a minimum of slacks, to a fixed structure unless any other effective means such as provisions of guard rails or ropes are taken to prevent his falling.

(b) All safety belts and life lines shall be examined at frequent intervals by a competent person to ensure that no belt or life line which is not in good condition is used.

HEALTH AND WELFARE

(62) *Prohibition of employment of young persons in certain processes.*— No young person shall be employed in

(a) the application of asbestos by means of a spray;

(b) the breaking down for removal of asbestos lagging;

(c) the cleaning of sacks or other containers which have contained asbestos;

(d) the cutting of material containing asbestos by means of portable power driven saws; or

(e) the scaling, scurfing or cleaning of boilers, combustion chambers or smoke boxes, where his work exposes him to dust of such a character and to such an extent as to be likely to be injurious or offensive to persons employed in such work.

(63) *Lead processes.*—

(a) Lead paint shall not be applied in the form of a spray in the interior painting of any part of a ship or vessel.

(b) Wherever lead sheathing work is carried on for making cold storage chambers in the ships, efficient exhaust draughts with portable extractors should be provided to remove the lead fumes from the confined spaces.

(64) *Stretchers, ambulances and ambulance rooms, etc.*—

(a) In every shipyard there shall be provided and kept readily available.

(i) a sufficient number of suitably constructed sling stretchers or other similar appliances for raising injured persons;

(ii) a sufficient number of carrying or wheel stretchers; and

(iii) a sufficient supply of suitable reviving apparatus and oxygen, and the stretchers, appliances and apparatus so provided shall be properly maintained.

(b) In every shipyard there shall always be readily available during working hours a responsible person or responsible persons whose duty it is to summon an ambulance or other means of transport if needed in cases of accident or illness. Legible copies of a notice indicating that person or, as the case may be, those persons shall be affixed in prominent positions in every shipyard.

(c) In every shipyard other than a dry dock available for hire-

- (i) in which the number of persons employed normally exceeds five hundred; or
- (ii) in which the number of persons employed normally exceeds one hundred and which is more than ten miles from a hospital;

there shall be provided and maintained in good order and in clean conditions a properly constructed ambulance room containing at least the equipment's prescribed in the rules framed under section 45 if the Act. The room shall be used only for the purpose of treatment and rest and shall be in the charge of a suitably qualified person who shall always be readily available during working hours, and record shall be kept of all cases of accident or sickness treated in the room.

TRAINING AND SUPERVISION

(65) *Young person's*.—

(a) No young person shall unless employed in a shipyard or shipyards for at least six months, be employed in connection with the operations in a shipyard on a stage from which, or in any part of a ship where he is liable to fall a distance of more than 2 meters or, into water in which there is a risk of drowning.

(b) Any persons under the age of sixteen shall, when employed in the operations in shipyard be placed under the charge of an experienced workman.

(66) *Safety supervision*.— In the case of every shipyard other than a dry available for hire, being a shipyard where the number of workers regularly or from time to time exceeds five hundred, a person experienced in the work of such yards shall be appointed and employed exclusively to exercise general supervision of the observance of these rules and to promote the safe conduct of the work generally.

SCHEDULE – XXXI

Process of Melting Metal in Induction Furnace

(1) Application: Provisions of this schedule shall apply to all parts of factories operations where melting of metal is done in induction furnace and other allied processes are carried on.

(2) Definitions:

(a) “Induction Furnace” means furnace in which a strong magnetic field created by passing an electric current through a coil wrapped around the furnace. The magnetic field in turn creates a voltage across, and subsequently an electric current through, the metal to be melted.

(b) “Coil” means coil of Induction Furnace.

(c) “Ladle” means equipment used to carry melted metal

(d) “Mold” means molds made of steel, sand, loam, moulding composition or other mixture of materials.

(e) “Personal Protective Equipment” Personal Protective Equipment (PPEs) refers to protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection.

(d) “Refractory” means lining of refractory bricks made in pit

(3) Arrangement and storage – For the purposes of promoting safety and cleanliness in workrooms the following requirements shall be observed:-

(a) moulding boxes, loam plates, ladles, patterns, pattern plates, frames, boards, box weights, and other heavy articles shall be so arranged and placed as to enable work to be carried on without unnecessary risk;

(b) Suitable and conveniently accessible racks, bins, or other receptacles shall be provided and used for the storage of other gear and tools;

(c) Where there is bulk storage of sand, fuel, metal scrap or other materials or residues, suitable bins, bunkers or other receptacles shall be provided for the purpose of such storage.

(4) Construction, maintenance of platform and floors – (a) The platform of furnace shall be of good construction, sound material and adequate strength to withstand explosion.

(b) The platform must be of adequate size to accommodate persons working there and raw material to be charged.

(c) The platform must be provided with at least two stairs Floors of indoor workplaces in which the processes are carried on, other than parts which are of sand, shall have been surface of hard material. (d) No part of the floor of any such indoor workplace shall be of sand except where this is necessary by reason of the work done.

(e) All parts of the surface of the floor of any such indoor workplace which are of sand shall, so far as practicable, be maintained in an even and firm condition.

(5) Authorized person:– (a) No person except those authorized to work on platform or near furnace shall be allowed on the platform or near furnace.

(b) Person covered under exception of sub-clause (a) must be trained and provided with prescribed personnel protective equipment.

(c) No person shall carry out any work within a distance of 4 meters from a vertical line passing through the delivery end of any spout of a furnace, being a spout used for delivering molten metal, or within a distance of 2.4 meters from a vertical line passing through the nearest part of any ladle which is in position at the end of such a spout, except, in either case, where it is necessary for the proper use of maintenance of furnace that work should be carried out within that distance of that work is being carried out at such a time and under such conditions that there is no danger to the person carrying it out from molten metal which is being obtained from the cupola or furnace or is in a ladle in position at the end of the spout.

(6) Maintenance and examination of exhaust plant – (a) All ventilation plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be properly maintained.

(b) All ventilating plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be examined and inspected once every week by a responsible person.

(c) It shall be thoroughly examined and tested by a competent person at least once in every period of twelve months; and particulars of the results of every such examination and test shall be entered in Form XXXV which shall be available for inspection by an Inspector-cum-Facilitator.

(d) Any defect found on any such examination and test shall be immediately reported in writing by the person carrying out the examination and test, to the occupier or manager of the factory.

(7) Ladle – (a) Before the ladle is placed for pouring the hot liquid metal, it shall be thoroughly inspected.

(b) Place the ladle below the spout.

(c) Before pouring is started, it shall be ensured that:

(i) Only minimum required nos. of persons shall be present.

(ii) They all shall use PPEs like face shield, flame retardant suit, anklets, goggles, hand gloves, helmets and safety shoes.

(iii) Ladle shall be removed only after clearance from the Furnace In-charge.

(d) Ladle shall not be transported in tilted condition.

(8) Operation and Maintenance of furnace: (a) The occupier shall operate the furnace as per instructions supplied by manufacturer.

(b) The occupier shall keep the maintenance of furnace as per maintenance schedule supplied by manufacturer.

(c) The coil should be checked at regular intervals

(d) The refractories shall be changed at regular interval.

(9) Work Permit- The occupier shall issue work permit to the person supposed to work in confined space, at height or on electric equipment.

(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.

(11) Prohibition of employment of pregnant women, lactating mother and adolescent person – No pregnant women, lactating mother and adolescent person shall be employed in any of the process covered by this schedule

(12) Medical examination—

(a) Every worker shall be examined by the authority or the agency as specified in sub-rule (3) of this rule before his first employment. Such medical examination shall include lung function test and other routine examinations. Such examination, wherever the authority or the agency as specified in sub-rule (3) of this rule considers appropriate, shall include chest X-ray.

(b) Every worker employed in the said processes shall be re-examined by the authority or the agency as specified in sub-rule (3) of this rule at least once in every twelve months. Such re-examination shall include all the tests as specified in sub-clause (a).

(c) The authority or the agency as specified in sub-rule (3) of this rule after examining a worker shall issue a Certificate of Fitness in Form XXXVI. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-clauses (a) and (b), including the nature and the results of the tests, shall also be entered by the authority or the agency as specified in sub-rule (3) of this rule in a health register in Form XXVIII.

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

(e) If, at any time, the Medical Officer is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker he 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.

(f) No person who has been found unfit to work as said in sub-clause (e) 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.

(13) 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.

86. Constitution of Site Appraisal Committee.— The Government may, by notification in the Official Gazette, constitute one or more site appraisal committees consisting of a chairman and other members as may be specified in the notification, for the purpose to consider and to give recommendations on an application for grant of permission for the initial location of a factory involving a hazardous process or for the expansion of such factory and any other purpose as may be specified in the notification. The application for site appraisal shall be submitted in such form as may be specified in the notification.

87. Collection, development and dissemination of information.— (1) The occupier of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process or involving isolated storage or industrial activity at a site handling (including transport through carrier or pipeline) of hazardous substance less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, shall arrange to obtain or develop information in the form of Material Safety Data Sheet (MSDS) in respect of every hazardous substance in the factory. It shall be accessible upon request to an employee for reference.

(a) Every such Material Safety Data Sheet shall include the following information:-

- (i) The identity used on the label;
- (ii) Hazardous ingredients of the substance;
- (iii) Physical and chemical characteristics of the hazardous substance;
- (iv) The physical hazards of the hazardous substance, including the potential for fire, explosion and reactivity;
- (v) The health hazards of the hazardous substances, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the substance;
- (vi) The primary route (s) of entry;
- (vii) The permissible limits of exposure specified under rule 103 of these rules and in respect of a chemical not covered under said rule, any exposure limit used or recommended by the manufacturer, importer or occupier;
- (viii) Any generally applicable precautions for safe handling and use of the hazardous substance, which are known, including appropriate hygienic practices, protective measures during repairs and maintenance of contaminated equipment, procedures for clean-up of spills and leaks;
- (ix) Any generally applicable control measures, such as appropriate engineering controls, work practices, or use of personal the protective equipment;
- (x) Emergency and first-aid procedures;

- (xi) The date of preparation of the Material Safety Data Sheet, or the last change to it; and
 - (xii) The name, address and telephone number of the manufacturer, importer, occupier or other responsible party preparing or distributing the Material Safety Data Sheet, who can provide additional information on the hazardous substance and appropriate emergency procedures, if necessary.
- (b) The occupier, while obtaining or developing a Material Safety Data Sheet in respect of hazardous substance, shall ensure that the information recorded, accurately reflects the scientific evidence used in making the hazardous determination. If he becomes newly aware of any significant information regarding the hazards, of a substance, or ways to protect against the hazards, this new information shall be added to the Material Safety Data Sheet, as soon as practicable.
- (c) The Material Safety Data Sheet shall be such as specified under the Schedule to this rule.
- (2) Labelling— (a) Every container of a hazardous substance shall be clearly labeled or marked to identify –
- (a) the contents of the container;
 - (b) the name and address of the manufacturer or importer of hazardous substance;
 - (c) the physical and health hazards; and
 - (d) the recommended personal protective equipment needed to work safely with the hazardous substance.

SCHEDULE

Material Safety Data Sheet		
1.	Identification of the substance or mixture and of the supplier	(a) GHS product identifier; (b) Other means of identification; (c) Recommended use of the chemical and restrictions on use; (d) Supplier's details (including name, address, phone number etc.); (e) Emergency phone number.
2.	Hazards identification	(a) GHS classification of the substance/mixture and any national or regional information; (b) GHS label elements, including precautionary statements. (Hazard symbols may be provided as a graphical reproduction of the symbols in black and white or the name of the symbol e.g. "flame", "skull and crossbones"); (c) Other hazards which do not result in classification (e.g. "dust explosion hazard") or are not covered by the GHS.
3.	Composition/ information on ingredients	Substance (a) Chemical identity; (b) Common name, synonyms, etc.; (c) CAS number and other unique identifiers; (d) Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance. Mixture The chemical identity and concentration or concentration ranges of all ingredients which are hazardous within the meaning of the HS and are present above their cut-off levels. <i>NOTE: For information on ingredients, the competent authority rules for confidential business information take priority over the rules for product identification.</i>

4.	First-aid measures	(a) Description of necessary measures, subdivided according to the different routes of exposure, i.e. inhalation, skin and eye contact and ingestion; (b) Most important symptoms/effects, acute and delayed. (c) Indication of immediate medical attention and special treatment needed, if necessary.
5.	Fire-fighting measures	(a) Suitable (and unsuitable) extinguishing media. (b) Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products). (c) Special protective equipment and precautions for fire-fighters.
6.	Accidental release measures	(a) Personal precautions, protective equipment and emergency procedures. (b) Environmental precautions. (c) Methods and materials for containment and cleaning up.
7.	Handling and storage	(a) Precautions for safe handling. (b) Conditions for safe storage, including any incompatibilities.
8.	Exposure controls/ personal protection	(a) Control parameters e.g. occupational exposure limit values or biological limit values. (b) Appropriate engineering controls. (c) Individual protection measures, such as personal protective equipment.
9.	Physical and chemical properties	Physical state; Colour; Odour; Melting point/freezing point; Boiling point or initial boiling point and boiling range; Flammability; Lower and upper explosion limit/flammability limit; Flash point; Auto-ignition temperature; Decomposition temperature; pH; Kinematic viscosity; Solubility; Partition coefficient: n-octanol/water (log value); Vapour pressure; Density and/or relative density; Relative vapour density; Particle characteristics.
10.	Stability and reactivity	(a) Reactivity (b) Chemical stability; (c) Possibility of hazardous reactions; (d) Conditions to avoid (e.g. static discharge, shock or vibration); (e) Incompatible materials; (f) Hazardous decomposition products.
11.	Toxicological information	Concise but complete and comprehensible description of the various toxicological (health) effects and the available data used to identify those effects, including: (a) information on the likely routes of exposure (inhalation, ingestion, skin and eye contact); (b) Symptoms related to the physical, chemical and toxicological characteristics;

		(c) Delayed and immediate effects and also chronic effects from short- and long-term exposure; (d) Numerical measures of toxicity (such as acute toxicity estimates).
12.	Ecological information	(a) Ecotoxicity (aquatic and terrestrial, where available); (b) Persistence and degradability; (c) Bioaccumulative potential; (d) Mobility in soil; (e) Other adverse effects.
13.	Disposal considerations	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging.
14.	Transport information	(a) UN number; (b) UN proper shipping name; (c) Transport hazard class(es); (d) Packing group, if applicable; (e) Environmental hazards (e.g. Marine pollutant (Yes/No)); (f) Transport in bulk according to IMO instruments; (g) Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.
15.	Regulatory information	Safety, health and environmental regulations specific for the product in question.
16.	Other information including information on preparation and revision of the SDS	

(4) Information contained in the material data sheet shall be believed to be reliable but no representation, guarantee or warranties of any kind shall be made as to its accuracy, suitability for a particular application or results to be obtained from them. It shall be upto the manufacturer/seller to ensure that the information contained in the material safety data sheet is relevant to the products manufactured / handled or sold by him as the case may be. The Government shall make no warranties expressed or implied in respect of the adequacy of these documents for any particular purpose.

88. – Disclosure of information to the workers.— (1) The occupier of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process or involving isolated storage or industrial activity at a site handling (including transport through carrier or pipeline) of hazardous substance less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, shall supply to all workers the following information in relation to handling of hazardous substances in the manufacture, transportation, storage and other processes:-

- (a) Requirements of sections 84, 85 and 89 of the Code;
- (b) A list of hazardous processes carried on in the factory;
- (c) Location and availability of all Material Safety Data Sheets as per rule 87;
- (d) Physical and health hazards arising from exposure to or handling of substance;
- (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 workers;
 - (h) Meaning of various labels and markings used on the containers of hazardous substances as provided under rule 87;
 - (i) Signs and symptoms likely to be manifested on exposure to hazardous substances and to whom to report;
 - (j) Measures to be taken by the workers in case of any spillage or leakage of a hazardous substance;
 - (k) Role of workers vis-à-vis the emergency plan of the factory, in particular the evacuation procedures;
 - (l) Any other information considered necessary by the occupier to ensure the safety and health of workers.
- (2) The information required under sub-rule (1) shall be complied and made known to workers individually through supply of booklets or leaflets and display of cautionary notice at the work places.
- (3) The booklets, leaflets and the cautionary notices displayed in the factory shall be in the language understood by the majority of the workers, and also explained to them.
- (4) The Chief Inspector-cum-Facilitator may direct the occupier to supply further information to the workers as deemed necessary.

89. Disclosure of information to the Chief Inspector-cum-Facilitator, local authority, District Magistrate and general public, etc.— The occupier of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process or involving isolated storage or industrial activity at a site handling (including transport through carrier or pipeline) of hazardous substance less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, shall disclose the information to the Chief Inspector-cum-Facilitator, local authority, District Magistrate and general public, etc. as under -

- 1) Disclosure of information to the Chief Inspector-cum-Facilitator—
 - (i) a copy of all the information furnished to the workers;
 - (ii) A copy of compilation of Material Safety Data Sheets in respect of hazardous substances used, produced or stored in the factory;
 - (iii) any other information asked by the Chief Inspector-cum-Facilitator from time to time for the purpose of this Code and these rules.
- 2) Disclosure of information to the general public and or industries in the vicinity—
 - (i) The occupier shall, in consultation with the District Magistrate, take appropriate steps to inform the general public and or industries in the vicinity who are likely to be in the area which might be affected by an accident. Such information shall include—
 - (a) Name of the factory and address where situated;
 - (b) Identification, by name and position, of the person giving the information;
 - (c) Confirmation that the factory has approval from the Chief Inspector-cum-Facilitator and Pollution Control Board;

- (d) An explanation in simple terms of the hazardous process(es) carried on in the premises;
 - (e) The common names of the hazardous substances used which could give rise to an accident likely to affect them, with an indication of their principal harmful characteristics;
 - (f) Brief description of the measures to be taken to minimize the risk of such an accident in compliance with its legal obligations under relevant safety statutes;
 - (g) Salient features of the approved disaster control measures adopted in the factory;
 - (h) Details of the factory's emergency warning system for the general public and or industries in the vicinity;
 - (i) General advice on the action members of the public and or industries in the vicinity should take on hearing the warning;
 - (j) Brief description of arrangements in the factory, including liaison with the emergency services, to deal with foreseeable accidents of such nature and to minimize their effects; and
 - (k) Details of where further information can be obtained.
- 3) Disclosure of information to the local authority having jurisdiction over the area in which the factory is situated—
- (a) the information furnished to general public and or industries in the vicinity as specified in sub-rule (2);
 - (b) a statement of the names and quantities generally stored or in process, of hazardous substances;
- 4) Disclosure of information to the District Magistrate—
- (i) all information having a bearing on preparation of an on-site emergency plan and a disaster control and management plan in respect of the factory;
 - (ii) Without prejudice to the generality of this clause, the occupier shall furnish the District Magistrate the following:—
 - (a) a report on status relating to risk assessment and environmental impact assessment and the measures taken for prevention of accidents;
 - (b) compilation of Material Data Sheets in respect of hazardous substances used, produced or stored in the factory;
 - (c) a statement on all possible sources of accidents involving fire, explosion, release or leakage of toxic substances and the plan of the premises where such an accident may occur;
 - (d) A statement on resources and facilities available for dealing with an emergency including any agreement entered into with a neighbouring factory for aid and assistance in the event of an emergency;
 - (e) A map of the area showing the approaches to the factory location of emergency facilities such as hospitals, police, fire service;
 - (f) The organisation of the management and the responsibility for safety indicating therein the persons responsible for onsite emergency action;
 - (g) Details relating to alert system;
 - (h) Information on availability of antidotes for poisoning resulting from an accident;

- (i) Any other information as may be considered relevant by the occupier or asked for by the District Magistrate.

90. Review of the information furnished to workers, etc.— (1) The occupier of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process or involving isolated storage or industrial activity at a site handling (including transport through carrier or pipeline) of hazardous substance less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, shall review once in every calendar year and modify, if necessary the information furnished under rules 88 and 89 to the workers, the Chief Inspector-cum-Facilitator, local authority, District Magistrate and general public and or industries in vicinity.

(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.

91. Confidentiality of information.— (1) The occupier of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process or involving isolated storage or industrial activity at a site handling (including transport through carrier or pipeline) of hazardous substance less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, shall disclose all information to the concerned as specified under rules 88 and 89.

(2) 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.

(3) The Chief Inspector-cum-Facilitator shall give an opportunity to the occupier of being heard and pass an order to the representation. An occupier aggrieved by an order of the Chief Inspector-cum-Facilitator may prefer an appeal before the Secretary to the Government in the Inspectorate of Factories and Boilers within a period of thirty days. Secretary to the Government in the Inspectorate of Factories and Boilers shall give an opportunity to the occupier of being heard and pass an order. The order of the Secretary to the Government in the Inspectorate of Factories and Boilers in this regard shall be final and binding.

92. On-site emergency plan.— (1) The occupier of a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process or involving isolated storage or industrial activity at a site handling (including transport through carrier or pipeline) of hazardous substance less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 but greater than 100 litres or kg at a time or licensed to employ 150 or more workers, shall draw up an on-site emergency plan for his factory and make known to the workers and to the general public and or industries in the vicinity of the factory the safety measures required to be taken in the event of an accident taking place.

(2) On-site emergency plan shall contain details as specified in the Schedule to this rule and the details as to how accidents or emergencies will be dealt with on the site and such plan shall include names of the persons authorized to take action in accordance with such plan in case of an emergency.

(3) On-site emergency plan prepared under sub-rule (1) shall be updated periodically or after any modification made to the manufacturing process, which may affect the emergency preparedness.

(4) Mock drill of the on-site emergency plan shall be conducted at least once in every six months.

(5) A detailed report of the mock drill conducted under sub-rule (4) shall be prepared and maintained and made available to the Chief Inspector-cum-Facilitator or the Inspector-cum-Facilitator on demand.

SCHEDULE

Details to be furnished in the On-site Emergency Plan

- (1) Name and address of the person furnishing the :
information.
- (2) Key personnel of the organization and :
responsibilities assigned to them in case of an
emergency
- (3) Outside organization if involved in assisting
during on-site emergency -
 - (a) Type of accidents :
 - (b) Responsibility assigned :
- (4) Details of liaison arrangement between the :
organizations.
- (5) Information on the preliminary hazard analysis -
 - (a) Type of accidents :
 - (b) System elements or events that can lead to a :
major accident
 - (c) Hazards :
 - (d) Safety relevant components :
- (6) Details about the site -
 - (a) Location of dangerous substances :
 - (b) Seat of key personnel :
 - (c) Emergency control room :
- (7) Description of hazardous chemicals at plant site -
 - (a) Chemicals (Quantities and toxicological :
data)
 - (b) Transformation if any, which could occur. :
 - (c) Purity of hazardous chemicals. :
- (8) Likely dangers to the plant :
- (9) Enumerate effects of -
 - (a) Stress and strain caused during normal :
operation:
 - (b) Fire and explosion inside the plant and :
effect if any, of fire and explosion outside.
- (10) Details regarding -
 - (a) Warning, alarm and safety and security :
systems.

- (b) alarm and hazard control plans in line with :
disaster control and hazard control
planning, ensuring the necessary technical
and organizational precautions;
- (c) Reliable measuring instruments, control :
units and servicing of such equipments.
- (d) Precautions in designing of the foundation :
and load bearing parts of the building.
- (e) Continuous surveillance of operations. :
- (f) Maintenance and repair work according to :
the generally recognized rules of good
engineering practices.
- (11) Details of communication facilities available :
during emergency and those required for an off-
site emergency.
- (12) Details of firefighting and other facilities :
available and those required for an off-site
emergency.
- (13) Details of first aid and hospital services available :
and its adequacy.

93. Health and Safety Policy.— (1) Occupier of every factory, except as provided for in sub-rule (2) shall prepare a written statement of his policy in respect of health and safety of workers at work.

(2) All factories -

- (a) covered under section 2(w) (i) but employing less than 50 workers;
- (b) Covered under section 2(w) (ii) but employing less than 150 workers;

Shall be exempted from requirements of sub-rule (1) :

Provided that they are not categorized as major accident hazards (MAH) installation or carrying on hazardous process as defined under section 2 (za) or involving isolated storage or industrial activity at a site handling (including transport through carrier or pipeline) of hazardous substance less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 but greater than 100 litres or kg at a time or carrying out processes or operations declared to be dangerous under Section 82 of the Code.

(3) Notwithstanding anything contained in sub-rule (2), the Chief Inspector-cum-Facilitator may require the occupiers of any of the factories 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) Declared intention and commitment of the top management to health, safety and environment and compliance with all the relevant statutory requirements;
- (b) Organizational set-up to carry out the declared policy clearly assigning the responsibility at different levels; and
- (c) Arrangements for making the policy effective.

(5) In particular, the policy shall specify the following:-

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

94. Medical Examination.— (1) Workers employed in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process, shall be medically examined by the Medical Officer appointed under the Code or the Medical Inspector of Factories appointed by the Government or a facility set up by the Government including Goa Medical College and Hospital or recognized Factory Medical Officer or a recognized Occupational Health Laboratory under the guidance of a recognized Factory Medical Officer, in the following manner:-

- (a) Once before employment, to ascertain physical fitness of the person to do the particular job;
- (b) Once in a period of twelve months, to ascertain the health status of all the workers in respect of occupational health hazards to which they are exposed; and in cases where in the opinion of the Factory Medical Officer, it is necessary to do so at a shorter interval in respect of any worker;
- (c) The tests / investigations to be conducted for the purpose of carrying out medical examination of a worker before employment and thereafter at prescribed intervals shall consist of blood investigations for hemoglobin, total WBC count, differential count, blood grouping, fasting blood sugar level, serum creatinine, blood urea, electro cardio gram, urine (routine and microscopic),

audiometry, X-ray chest, eye test including colour vision, pulmonary function test and other test(s) which the Factory Medical Officer or the Occupational Health Laboratory may specify;

- (d) The details of pre-employment and periodical medical examinations carried out as aforesaid shall be recorded in the Health Register in Form XXVIII.

(2) No person shall be employed for the first time without a certificate of fitness in Form XXXVI granted by the Medical Officer appointed under the Code or the Medical Inspector of Factories appointed by the Government or a facility set up by the Government including Goa Medical College and Hospital or recognized Factory Medical Officer or a recognized Occupational Health Laboratory.

(3) If a person is declared unfit by recognized Factory Medical Officer or a recognized Occupational Health Laboratory, for being employed in any process covered under sub-rule (1), such a person shall have the right to appeal to the Chief Inspector-cum-Facilitator who shall refer the case to the Medical Officer and the decision of the Medical Officer shall be final in the matter.

(4) If a person is declared unfit by the Medical Officer appointed under the Code or the Medical Inspector of Factories appointed by the Government or a facility set up by the Government including Goa Medical College and Hospital, for being employed in any process covered under sub-rule (1), such a person shall have the right to appeal to the Chief Inspector-cum-Facilitator who shall refer the case to the Medical Board constituted by the Goa Medical College and Hospital and the decision of the Medical Board, shall be final in the matter.

(5) Any findings revealing any abnormality or unsuitability of any person employed in the process shall immediately be reported to the Chief Inspector-cum-Facilitator who shall in turn, refer the case to the Medical Officer or the Medical Board, as the case may be and communicate the findings to the occupier within thirty days. If the Medical Officer or the Medical Board, as the case may be, is of the opinion that the worker so examined is required to be taken away from the process for health protection, Chief Inspector-cum-Facilitator will direct the occupier accordingly, who shall not employ the said worker in the same process, however, the worker so taken away shall be provided with alternate placement unless he is, in the opinion of the Medical Officer or the Medical Board, as the case may be, from incapacitated in which case the worker affected shall be suitably rehabilitated.

(6) A Medical Officer on his own motion or on a reference from an Inspector-cum-Facilitator may conduct medical examination of a worker to ascertain the suitability of his employment in a hazardous process or for ascertaining his health status. Any findings revealing any abnormality or unsuitability of any person employed in the process shall immediately be reported to the Chief Inspector-cum-Facilitator who shall in turn, refer the case to the Medical Board and the decision of the Medical Board, shall be final in the matter. The Fee required for this medical examination shall be paid by the occupier.

(7) The worker taken away from employment in any process under sub-rule (5) may be employed again in the same process only after obtaining the Fitness Certificate from the Medical Officer or the Medical Board, as the case may be and after making entries to that effect in the Health Register.

(8) 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.

(9) All the factories shall maintain and keep the health record of every worker upto a minimum period of fifteen years after retirement or cessation of employment.

95. Occupational Health Centre.— (1) In respect of any factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process, there shall be

provided and maintained in good order an Occupational Health Centre with the services and facilities as per scale laid down hereunder -

- (a) For factories licensed to employ upto 150 workers on any day:-
 - (i) the services of a Factory Medical Officer recognized by the Chief Inspector-cum-Facilitator, on retainer-ship basis in his clinic to be notified by the occupier. He will carry out the pre-employment and periodical medical examination as stipulated in rule 94 and render medical assistance during any emergency;
 - (ii) a minimum of 5 persons trained on first aid procedures amongst whom at least one shall always be available during the working period.
 - (iii) A fully equipped first aid box.
- (b) For factories licensed to employ more than 150 but upto 500 workers on any day :-
 - (i) an Occupational Health Centre having a room with a minimum area of 15 sq. mtr. with floors and walls made a smooth and impervious surface and with adequate illumination and ventilation as well as equipment as per the Schedule annexed to this rule;
 - (ii) A part-time Factory Medical Officer recognized by the Chief Inspector-cum-Facilitator shall be in overall in-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 through the working period;
 - (iv) A fully equipped first aid box in all the departments.
- (c) For factories licensed to employ more than 500 workers on any day,-
 - (i) One full-time Factory Medical Officer recognized by the Chief Inspector-cum-Facilitator for factories licensed to employ upto 1000 workers on any day and an additional Factory Medical Officer recognized by the Chief Inspector-cum-Facilitator for every additional 1000 workers or part thereof;
 - (ii) An Occupational Health Centre having at least 2 rooms each with a minimum floor area of 15 sq. mtrs. with floors and walls made of smooth and impervious surface and adequate illuminations and ventilation as well as equipment's 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;
 - (iv) The occupational Health Center shall be suitably equipped to manage medical emergencies.

(2) The factory Medical Officer required to be appointed under sub-rule (1) shall have qualification included in Schedules to the Medical Degrees Act, 1916 (Act 7 of 1916) or in the Schedules to the Medical Council Act, 1956 (Act 102 of 1956) and shall possess Diploma in Occupational and Industrial Health offered by any recognized University or three months certificate course in Associate Fellow of Industrial Health offered either by the Directorate General of Factory Advice Services and Labour Institute (DGFASLI), Mumbai or an Institute approved by the Central Government / any State Government / Union Territory Administration, in accordance with the guidelines issued by DGFASLI and shall be recognized by the Chief Inspector-cum-Facilitator. Within one month of the appointment the Factory Medical Officer, the occupier of the factory shall furnish to the Chief Inspector-cum-Facilitator the following particulars:

- (a) Name and address of the Factory Medical Officer;
- (b) Qualifications;

(c) Experience if any; and:

(d) The sub-rule i.e.(1) (a) or (1) (b) or (1) (c) under which he is appointed.

SCHEDULE

Equipments 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 x 105 cm
3. Means for sterilizing instruments.
4. A couch
5. Two buckets or container with close fitting lids
6. A kettle and spirit stove or other suitable means of boiling water.
7. One bottle of spirituous ammoniac spirit of alcohol (120ml)
8. Two medium size sponges
9. Two kidney trays
10. Four cakes of toilet, preferably antiseptic soap.
11. Two clinical thermometers.
12. Two glass tumblers and two wine glasses.
13. Two tea spoons
14. Two graduated (120 ml) measuring glasses
15. One wash bottle (1000 cc) for washing eyes.
16. One bottle (one litre) carbolic lotion 1 in 20
17. Three chairs.
18. One screen
19. One electric hand torch,
20. An adequate supply of tetanus toxoid.
21. Tablets-antihistaminic, antispasmodic (25 each)
22. Syringes with needles – 2 cc, 5 cc, and 10 cc
23. Two needle holders, big and small
24. Suturing needles and materials
25. One dissecting forceps.
26. One dressing forcep.
27. One scalpel
28. One stethoscope.
29. Rubber bandage- pressuring bandage.
30. Oxygen cylinder with necessary attachments.

31. One blood pressure apparatus.
32. One Patellar Hammer.
33. One Peak-flow meter for lung function measurements.
34. One Stomach wash set.
35. Any other equipment and medicine recommended by the Factory Medical Officer according to specified need relating to manufacturing process.
36. In addition-
 - (1) For factories employing 51 to 200 workers:-
 - (i) Four plain wooden splints 900 mm x 100 mm x 6 mm
 - (ii) Four plain wooden splints 350 mm x 75 mm x 6 mm
 - (iii) Two plain wooden splints 250 mm x 50 mm x 12 mm
 - (iv) One pair artery forceps.
 - (v) Injections- morphine, pethidine, atropine, adrenaline, novacaine (2 each)
 - (vi) One pair of surgical scissors.
 - (2) For factories employing above 200 workers:-
 - (i) Eight plain wooden splints 900 mm x 100 mm x 6 mm
 - (ii) Eight plain wooden splints 350 mm x 75 mm x 6 mm.
 - (iii) Four plain wooden splints 250 mm x 50 mm x 12 mm
 - (iv) Two pairs of artery forceps.
 - (v) Injections – morphine, pethidine atropine, adrenaline, coramine, novacaine (4 each)
 - (vi) Two pair of surgical scissors.

96. Recognition of Factory Medical Officer.— (1) Any person possessing qualification as specified under sub-rule (2) of rule 95 and intends to be appointed as Factory Medical Officer under sub-rule (1) of rule 95 shall submit an application in Form XIII to the Chief Inspector-cum-Facilitator along with a treasury receipt showing payment of five thousand rupees towards the fees for recognizing applicant, which shall be non-refundable, as a Factory Medical Officer, for the purposes of the Code and these rules.

(2) The Chief Inspector-cum-Facilitator, shall register such application and within a period of thirty days of the date of receipt of application, either after having satisfied himself as regards qualification and experience of the applicant and in consultation with the Medical Officer or the Medical Inspector of Factories, shall recognize the applicant as a Factory Medical Officer and issue an one-time certificate of recognition in Form XIV or reject the application specifying the reasons therefor.

(3) The Factory Medical Officers who were already recognized under the Goa Factories Rules, 1985, as amended from time to time, shall be deemed to be recognized under this rule.

(4) A person recognized as a Factory Medical Officer recognized under sub-rule (2), shall not serve as a Factory Medical Officer -

- (i) for more than ten factories, in case he is appointed on retainership basis;
- (ii) for more than six factories, in case he is appointed on part-time basis and the services rendered by him shall be at least for half a day per visit;

- (iii) for more than five factories on retainership basis and for more than three factories on part-time basis, in case he is appointed on retainership basis in some factories and on part-time basis in other factories:

Provided that the Chief Inspector-cum-Facilitator may issue directions to the occupier or the Manager or both of a factory to prohibit the appointment of a recognized Factory Medical Officer, after recording the reasons in writing, if he is satisfied that the requirements specified under sub-rule (4) this rule are not complied with by a recognized Factory Medical Officer.

97. Recognition of Occupational Health Laboratory.— (1) Any institution which intends to set up an Occupational Health Laboratory for the purposes of carrying out medical examination of the workers as required under the Code and the rules made thereunder, shall submit an application in Form XXXVII to the Chief Inspector-cum-Facilitator along with a treasury receipt showing payment of forty thousand rupees, which shall be non-refundable, towards the fees for recognizing the institution as an Occupational Health Laboratory for the purposes of the Code and these rules.

(2) The institution shall employ person(s) possessing the qualifications specified in sub-rule (2) of rule 95 and shall also possess license / approval / permission from authorities such as Local Authority, Goa State Pollution Control Board, District Collector and shall have facilities and equipment's at the disposal as set out herein below.

(3) The Chief Inspector-cum-Facilitator shall register such application and within a period of thirty days of the date of receipt of application, either after having satisfied himself as regards competence and facilities available at the disposal of the applicant and in consultation with the Medical Officer or the Medical Inspector of Factories, shall recognize the applicant institution as an Occupational Health Laboratory and issue a certificate of recognition in Form XXXVIII for a period not exceeding two years or reject the application specifying the reasons therefor.

(4) The institutions which are already recognized under the Goa Factories Rules, 1985, as amended from time to time, shall be deemed to be recognized under this rule till the expiry of the validity of the recognition so granted to such institution.

Provided further that nothing contained herein shall be applicable to a facility set up by the Government including Goa Medical College and Hospital.

(5) The Chief Inspector-cum-Facilitator may, after giving an opportunity to the Occupational Health Laboratory of being heard, revoke the certificate of recognition:

- (i) if he has reason to believe that the Occupational Health Laboratory:-
 - (c) has violated any condition stipulated in the certificate of recognition; or
 - (d) has unauthorizedly carried out a test, examination and certification 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
- (ii) for any other reason to be recorded in writing;

(6) The application for recognition as an Occupational Health Laboratory for further period shall be made at least thirty days before the expiry of the period of recognition and the procedure stated in above sub-rules shall apply mutatis mutandis for its recognition as an Occupational Health Laboratory for further period.

Facilities and equipment's for Occupational Health Laboratory

- (1) Spirometer;
- (2) Audiometer;

- (3) Vision tester;
- (4) X-ray machine;
- (5) ECG machine;
- (6) B.P. Apparatus;
- (7) Atomic Absorption Spectrophotometer;
- (8) Facilities and equipments required for biological and bio –chemical examination;
- (9) Facilities and equipments required for pathological examination;
- (10) Instruments required for clinical examination.

98. Ambulance Van.— (1) In any factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process, there shall be provided and maintained in good condition, a suitably constructed ambulance van, equipped with items as per sub-rule (2) and manned by a full-time Driver-cum-Mechanic and a Helper trained in first-aid, for the purpose 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 150 workers, may make arrangements for procuring such facility at short notice from nearby hospitals or other places, to meet any emergency, with the approval of the Chief Inspector-cum-Facilitator.

(2) The Ambulance should have the following equipment's:-

(a) General :

- A wheeled stretcher with folding and adjusting devices, with the head of the stretcher capable of being tilted upward;
- Fixed suction with unit equipment;
- Fixed oxygen supply with equipment;
- Pillow with case, Sheets, - Blankets, - towels;
- Emesis bag, - Bed pan, - Urinal, -Glass.

(b) Safety equipments:

- Flares with life of 30 minutes;
- Flood lights;
- Flash lights, Fire extinguisher – dry powder type;
- Insulated gauntlets.

(c) Emergency care equipment's:

(i) Resuscitation

- Portable suction unit, Portable oxygen units;
- Bag-Valve-Mask, hand operated artificial ventilation unit;
- Airways, - Mouth gags, Tracheostomy adoptors;
- Short spine board - I.V. fluids with administration unit;

- B.P. manometer, - Cugg, - Stethoscope.
- (ii) Immobilization
 - Long and short padded boards;
 - Triangular bandage, - Long and short spine boards.
- (iii) Dressings
 - Gauze pads – 4” x 4” – Universal dressing 10” x 36”;
 - Roll of aluminum foils, - Soft roller bandages 6” x 5 yards;
 Adhesive tape in 3” roll. – safety pins;
 - Bandage sheets, - Burn sheet
- (iv) Emergency Medicines
 - As per requirements (under the advice of Factory Medical Officer only).

99. Decontamination facilities.— In every factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process, the following provisions shall be made to meet emergency:-

- (a) fully equipped first aid box;
- (b) ready accessible means of water for washing by workers as well as for drenching the clothing of workers who have been contaminated with hazardous and corrosive substances; and such means shall be as per the scale shown in the table below:-

TABLE

No. of workers employed at any time	No. of drenching showers
(i) Upto 50 workers	Two
(ii) Between 51 to 200 workers	2+1 for every additional 50 or part thereof.
(iii) Between 201 to 5000 workers	5 + 1 for every additional 100 or part thereof.
(iv) 501 workers and above	8 + 1 for every additional 200 part thereof.

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

100. Making available Health Records to workers.— (1) The occupier of every factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or carrying on hazardous process, shall make accessible the health records including the record of workers exposure to hazardous process, as the case may be, the medical records of any worker for his perusal under the following conditions:-

- (a) Once in every six months or immediately after the medical examination, whichever is earlier;
- (b) If the Factory Medical Officer or the Medical officer, as the case may be, is of the opinion that the worker has manifested signs and symptoms of any noticeable disease as specified in the Third Schedule of the Code;

- (c) If the worker leaves the employment;
- (d) If any one of the following authorities so direct;
 - the Chief Inspector-cum-Facilitator;
 - The Health Authority of the Central or the State Government;
 - Commissioner of Workmen's Compensation;
 - The Director General Employees' State Insurance Corporation;
 - The Director, Employees' State Insurance Corporation (Medical Benefits); and
 - The Director General, Factory Advice Service and Labour Institutes.

(2) A copy of the upto date health records including the record of workers's exposure to hazardous process, 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.

101. Qualifications, etc., of supervisors.— (1) All persons who are required to supervise the handling of hazardous substances shall possess the following qualifications and experience: -

- (a) (i) A degree in any branch of engineering or technology or a masters degree in Science (Physics or Chemistry) or a master's degree in Pharmacy, from recognized University or equivalent, with two years of experience of working in a factory categorized as major accident hazards (MAH) installation or involved in hazardous process; or

A degree in Science (Physics or Chemistry) or a degree in Pharmacy or a diploma in any branch of engineering or technology, from a recognized University or equivalent or recognized Board, as the case may be, with five years of experience of working in a factory categorized as major accident hazards (MAH) installation or involved in hazardous process;

- (b) The Chief Inspector-cum-Facilitator may direct the occupier of the factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or involved in hazardous process to require the supervisor(s) so appointed in the factory to undergo a certificate course in Health and Safety of the duration as may be specified;

(2) The syllabus, course fees, duration, mode of examination, other aspects of the above course and the institution conducting the course shall be approved by the Directorate General Factory Advice Service and Labour Institutes or the State Government, from time to time.

102. Issue of guidelines.— For the purpose of compliance with the requirements of sub-sections (1), (4) and (7) of section 84 or 85, the Chief Inspector-cum-Facilitator may, if deemed necessary, issue guidelines from time to time to the occupiers of factories as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code and categorized as major accident hazards (MAH) installation or involved in hazardous process. Such guidelines may be based on National Standards, Code of Practice, or recommendations of International Bodies such as International Labour Organisation or World Health Organisation.

103. Permissible limits of exposure of chemicals and toxic substances.— (1) The maximum permissible limits of exposure of chemical and toxic substances in manufacturing processes (whether hazardous or otherwise) in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code shall be of the value as declared by the Central Government from time to time under clause 71 of the Second Schedule of the Code.

(2) An Inspector-cum-Facilitator may, by an order in writing, direct the occupier or manager of a factory to get before any specified date, limits of exposure of chemical and toxic substances in manufacturing processes (whether hazardous or otherwise) in any factory.

(3) 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 three days from the date of completion of such assessment and also a record of the same shall be kept readily available for inspection by an Inspector-cum-Facilitator.

104. Manner of preferring an Appeal under section 90.— (1) An appeal under section 90 of the Code, arising out of a decision of the Inspector-cum-Facilitator, shall be filed with the Chief Inspector-cum-Facilitator within a period of thirty days from the date on which the copy of the order or refusal against which the appeal is filed, is received by the appellant.

(2) An appeal may be admitted after the expiry of the period of thirty days if the appellant satisfies the Chief Inspector-cum-Facilitator that he had sufficient cause for not preferring the appeal within that period.

(3) The appeal shall be accompanied by a copy of order or letter of refusal issued by the Inspector-cum-Facilitator and a clear statement of facts appealed against, the grounds for appeal and the relevant sections of the Code.

(4) The appeal shall be filed in triplicate by the appellant either in person or by his duly authorized agent in writing or by an advocate duly appointed in this behalf or by registered post or speed post and shall be accompanied by fee of one thousand rupees paid in the form of Court Fee Stamp affixed on the Memorandum of appeal.

(5) The appeal sent by post shall be deemed to have been filed before the Chief Inspector-cum-Facilitator on the day it is received.

(6) If on scrutiny by the Chief Inspector-cum-Facilitator, the appeal is found to be in order, it shall be duly registered and given a registration number.

(7) If on scrutiny, the appeal is found to be incomplete, the same shall, after notice to the party, be returned for compliance and if within seven days of receipt of such notice or within such extended time as may be granted, the defect is not rectified, the Chief Inspector-cum-Facilitator, may, for reasons to be recorded in writing, decline to register the appeal.

(8) A copy of the appeal shall be served by the Chief Inspector-cum-Facilitator to the Respondent as soon as it is registered, by hand delivery.

(9) On admission of the appeal, the Chief Inspector-cum-Facilitator may call for the records relating to the proceedings from the respective Inspector-cum-Facilitator.

(10) The Respondent shall within seven days of service of notice of appeal, file reply on the appeal to the Chief Inspector-cum-Facilitator.

(11) The Chief Inspector-cum-Facilitator may, after giving the parties to the appeal an opportunity of being heard, pass such orders as he may think fit, confirming or setting aside the order or refusal appealed against. The decision shall ordinarily be given within thirty days from the receipt of the appeal.

(12) The order of the Chief Inspector-cum-Facilitator shall be signed and dated. The Chief Inspector-cum-Facilitator shall have powers to pass interim orders or injunction, subject to reasons to be recorded in writing, which he considers necessary in the interest of justice.

(13) A certified copy of every order passed by the Chief Inspector-cum-Facilitator shall be communicated to the respondent and to the parties, as the case may be.

(14) In all appeals, the Chief Inspector-cum-Facilitator shall decide whether the presence of the Inspector-cum-Facilitator is required and accordingly shall issue orders calling upon the Inspector-cum-Facilitator to be present without fail at the appointed place and time.

(15) The Chief Inspector-cum-Facilitator shall have power to secure the attendance of witnesses and to make local inquiries under the provisions of the Code.

(16) If the appellant is not present on the date fixed for hearing the appeal may be decided ex-parte.

105. Persons defined to hold position of supervision or management or employed in a confidential position.— (1) In a factory, the following persons shall be deemed to hold positions of supervision or management within the meaning of clause (a) of sub-section (1) of section 91 of the Code, provided they are not required to perform manual labour or clerical work as a regular part of their duties, namely: -

- (i) The Manager, Deputy Manager, Assistant Manager, Production Manager, Work Manager and General Manager;
- (ii) Departmental Head, Assistant Departmental Head, Departmental in-charge or Assistant Department In-charge;
- (iii) Chief Engineer, Deputy Chief Engineer and Assistant Engineer;
- (iv) Chief Chemist, Laboratory in- Charge;
- (v) Personal Manager, Personnel Officer;
- (vi) Labour Officer, Assistant Labour Officer;
- (vii) Welfare Officer, Additional Welfare Officer or Assistant Welfare Officer;
- (viii) Safety Officer;
- (ix) Security Officer;
- (x) Foreman, Charge man, Overseer and Supervisor;
- (xi) Head Store-Keeper and Assistant Store-Keeper;
- (xii) Any other person who, in the opinion of the Chief Inspector-cum-Facilitator, holds a position of supervision or management and is so declared in writing by him.

(2) In a factory, the following persons shall be deemed to be employed in a confidential position within the meaning of clause (a) of sub-section (1) of section 91 of the Code, namely:

- (i) Stenographer;
- (ii) Office Superintendent;
- (iii) Head Accountant and Head Cashier;
- (iv) Head Clerk, where there is no Office Superintendent;
- (v) Any other person who in the opinion of the Chief Inspector-cum-Facilitator, is employed in a confidential position and is so declared in writing by him.

(3) Provisions of Chapter VII except section 27 of the Code shall not apply to any person so defined or declared to hold position of supervision or management or employed in a confidential position.

(4) Any dispute as to whether a person, by virtue of the nature of his duties falls in any of the definitions, as specified under sub-rules (1) or (2), shall be decided by the Chief Inspector-cum-Facilitator by passing an order in writing which shall be final.

(5) On an application made by the occupier or manager of a factory, the Chief Inspector-cum-Facilitator may declare in writing any person other than the person as specified under sub-rules (1) and (2), as a person holding a position of supervision or management or employed in a confidential position in a factory, if in the opinion of the Chief Inspector-cum-Facilitator, such person holds such position or is so employed.

(6) All declarations of the nature described under sub-rule (5), made by the Chief Inspector-cum-Facilitator under the provisions of any earlier rules in that behalf, shall be deemed to have been made under sub-rule (4) and shall continue to remain in force.

(7) A list showing the name and designations of all persons specified under sub-rule (1) or (2) or (5) shall be maintained in every factory and it shall be made available for inspection to the Inspector-cum-Facilitator at all times when work is being carried on in any factory.

(8) With respect to the list maintained under sub-rule (7), the manager of the factory shall. —

- (a) maintain an overtime muster-roll in respect of such persons, and
- (b) issue overtime slips to such persons.

106. Exemption of adult workers from the provisions of working hours, etc.— (1) Any adult worker engaged in a factory, shall be exempted from the provisions of daily hours, weekly hours, weekly holidays, interests for rest and spread over under the Code and these rules, subject to the following conditions, namely: -

- (i) the total number of hours of work in any day shall not exceed ten;
- (ii) the spread over, inclusive of intervals for rest, shall not exceed eleven hours in any one day;
- (iii) the total number of hours of work in any week, including overtime, shall not exceed sixty;
- (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 hours.

(2) The Chief Inspector-cum-Facilitator, may by written order further exempt, on such conditions as he may deem expedient, any or all of the workers in any factory or group or class or description of factories from the provisions of sub-rule (1) of this rule, on the ground that the exemption is required to enable the factory or factories to deal with an exceptional press of work.

(3) Any exemption granted under sub-rule (2) of this rule 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 seventy-two;
- (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 forty-four hours.

(4) The limits imposed by clauses (i) and (ii) of sub-rule (1) and clauses (i) and (ii) of sub-rule (3) above shall not apply in the case of a shift worker if the said worker is allowed to work the whole or part of the subsequent shift in the absence of a worker who has failed to report for duty provided that the next shift of the said worker shall not commence before a period of sixteen hours has elapsed after the specified stopping time of the shift to which he belongs.

(5) Where the Chief Inspector-cum-Facilitator is satisfied that, owing to the nature of the work carried on or to other circumstances, it is unreasonable to require that the periods of work of any adult workers in any factory or class or description of factories should be fixed beforehand, it may, by written order, relax or

modify the provisions of section 31 of the Code in respect of such workers therein, to such extent and in such manner as it may think fit, and subject to such conditions as it may deem expedient to ensure control over periods of work.

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

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

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

110. Stacking and storing of material, etc.— No materials or equipment shall be stacked or stored in such a manner as to cause risk of bodily injury.

111. Water-sealed gasholder.— (1) The expression “gasholder” means a water-sealed gasholder which has a storage capacity of not less than 141.5 cubic metres.

(2) Every gasholder shall be of adequate material and strength of sound construction and properly maintained.

(3) Where there is more than one gasholder in a factory, every gasholder shall be marked in a conspicuous position with a distinguishing number or letter.

(4) Every gasholder shall be thoroughly examined externally by a competent person at least once in a period of twelve months.

(5) In the case of gasholder having lift, the internal state of the sheeting shall be examined by a competent person by means of electronic or other accurate devices at least once a every period of four years:

Provided that if the Chief Inspector-cum-Facilitator is satisfied that such electronic or other accurate devices are not available, he may permit the cutting of samples from the crown end the sides of the holder:

Provided further that if the above examination raises a doubt an interval visual examination shall be made.

(6) All possible steps shall be taken to prevent or minimize ingress of impurities in the gasholder.

(7) No gasholder shall be taken to prevent except under the direct supervision of a person who, by his training, experience and knowledge of the necessary precautions against risks of explosion and of persons being overcome by gas, is competent to supervise such work.

(8) (a) All sample discs cut under sub-rule (5) shall be kept readily available for inspection.

b) A permanent register in Form XXXIX duly signed by the occupier or manager shall be maintained.

c) The results of examinations by the competent person carried out as required under sub-rules (4) and (5) shall be recorded in Form XXXX.

(9) The Inspector of Factories shall inspect the gasholder at least once in a period of twelve months.

112. Safety measures in factories where equipment or pipelines containing inflammable materials are operated.— Where work of opening any equipment or pipeline containing inflammable liquids or gases is to be carried out in any factory, the following provisions shall be complied with, namely.

(1) The system of work permits shall be introduced and unless the equipment or the pipeline is certified to be free of inflammable gas or liquid, no person shall be allowed to enter or open the same.

(2) The work or opening such equipment or pipeline shall not be commenced unless the following operations are carried out and checked by the Supervisor in-charge of the Process Department of the factory:-

(i) Blanking operations.— The equipment or pipeline to be opened for repairs or maintenance shall be effectively blanked so as to ensure that no inflammable gas or liquid can enter the same under any circumstances during the operations of repair and maintenance. The Supervisor of the Process Department shall check personally of these operations and shall certify accordingly.

(ii) Flushing operation.— The Supervisor of the Process Department shall carry out the steaming or flushing out with water of the equipment or pipeline and shall certify to the effect.

(3) (i) Opening of the equipment.— The supervisor of the Engineering Department of the factory in-charge of the work of opening of such equipment or pipeline or getting clearance from the Supervisor incharge of the Process Department, shall satisfy himself that the above operations are complete and shall sign the work permits issued by the Supervisor of the Process Department.

(ii) It shall be the joint responsibility of the Supervisor of the Process Department and the Supervisor of the Engineering Department to check and ensure that hot lines, if any in the vicinity of such works are properly screened, in accordance with the safety instruction of the factory management. The work permit shall have as specific entry for these operations which shall be signed by both the Supervisor.

(4) No part of the running equipment or pipeline shall be opened unless a gas test is conducted by a responsible person to ensure that the equipment or pipeline is safe for opening.

(5) No workers whose clothes have been contaminated with inflammable of random shall be allowed to work where any such running equipment or pipeline is being opened.

(6) The Safety Officer or any officer authorised by him, shall have system of random checking on the work permits issued and he shall report any serious deficiencies to the Works Manager directly.

(7) All drains of such equipment's or pipeline shall be laid into the drains to prevent any splashing of the training inflammable liquids or gases.

(8) Before commencing the opening operation, it shall be ensured that specific person trained in fire-fighting operations, is kept available and the presence shall be ensured throughout the operation of the opening of equipment.

113. Safety measures in gas works.— (1) In respect of any factory where inflammable gas is produced by carbonization of coal, oil or any other similar substance, the following provisions shall be complied with, namely-

(i) No pipe, valve or any cover of any equipment into which gas is normalcy to flow shall be opened unless it is ensured that the equipment is no more supplied with any inflammable or explosive gas at a pressure greater than atmospheric pressure.

(ii) Before undertaking repairs of every sort to any pipe, valve or any other equipment connected with any part in the plant or machinery or any gas works (not being a gas-holder) it shall be ensured that the gas under pressure does not reach the point where such pipe, valve or equipment's is being opened by the removal of any bolts and nuts or by cutting either by mechanical means or by application of heat and that such pipe, valve or equipment is so isolated from the gas-holder or any other equipment generating gas that no gas under the pressure reaches the point of repair.

(iii) Before loosening the bolts and nuts or before undertaking the cutting of any pipe, valve or equipment in any gas works, a definite test shall be carried out by a competent person that no gas under pressure is fed to the point of repair. Details of the test carried out shall be mentioned in a certificate which shall be signed by the competent person. A copy of such certificate shall be displayed prominently near the place of repair

and shall be made available on demand to every worker employed in connection with such repairs for his perusal.

(iv) Every worker employed in connection with such repairs and working near any pipe, valve or other equipment while it is being opened shall be supplied with a mask and a respirator fed by air fresh from a point away from the point of repair. It shall be ensured that the worker shall wear the respirator while working near the point of repair.

(v) Electrical wiring or any electrical equipment (not being electrical arc welding equipment) used near the point of repair shall be so arranged that there are no trailing cables along the floor. All electrical equipment shall be of flame-proof type:

Provided that the provisions of this rule shall not apply to mains and services, plant or machinery installed in the open air subject to the following conditions:-

(a) The main or service shall be situated in the open air, and it shall contain only the following gases, separately or mixed at a pressure greater than atmospheric pressure, namely, town gas, coke-oven gas, producer gas, blast furnace gas or gases other air, used in their manufacture;

(b) The main or service shall not contain acetylene or any gas or mixed of gases to which acetylene has been added intentionally;

(c) The operation shall be carried out by an experienced person or persons and at least two persons (including those carrying out the operations) experienced in work on gas mains and over 18 years of age shall be present during the operation;

(d) The site of the operation shall be free from any inflammable or explosive gas or vapour;

(e) Where acetylene gas is used as a source of heat in connection with an operation, it shall be compressed and contained in a porous substance in a cylinder; and

(f) Prior to the application of any flame to the gas main or service, this shall be pierced or drilled and the escaping gas ignited.

Explanation: (1) It shall not be considered an effective measure to stop the gas under pressure from reaching the point of repair if only an inflated bladder is used as the obstruction between the source of gas under pressure and the point of repair:

Provided that where gas valves cannot be provided, it shall be considered an effective measure to stop the gas pressure from reaching the point of repairs if inflated bags alone are inserted against gas pressures not in excess of those indicated below:

Diameter (in) of gas main					Pressure in inches of water gauge
Upto and including 4				...	10
5 to 10	...	...	...	...	8
11 to 17	...	...	...	...	6
18 to 24	...	...	...	...	5
Over 24	...	...	...	...	3

and a competent person is kept constantly during the operation to watch and control the pressures within the limits specified as above and that. Such bags shall be tested on site for soundness and at least two spare bags shall be made available on site.

(2) The competent person for the purpose of this rule shall be the Chief Engineer of the factory or a person certified by the Chief Engineer in writing to be the competent person.

114. Work at height.— In any factory, no person shall be required or allowed to work at height unless—

- (i) The activity is carried out by the experienced or trained worker under the continuous supervision by the competent supervisor.
- (ii) Height Work Permit System is implemented and strictly followed.
- (iii) Worker assigned to work at height has obtained medical fitness certificate from registered medical practitioner each time he is required to work thereon.
- (iv) Risk assessment is done before commencement of work at height and necessary safety precautions is adopted.
- (v) Suitable safety harness or full body harness with self-retracting lifeline or internal shock absorbing lanyard is provided to the worker working at height or on fragile roof and it is ensured that adequate arrangement is made for anchoring safety harness or full body harness.
- (vi) Harness is connected to lifeline provided over the roofing or fixed structure to prevent the fall of worker.
- (vii) Lanyards connected to safety harness or full body harness is properly selected depending on the height of work.
- (viii) Fixed crawl boards and duck or roof ladders are provided for working on fragile roofing.
- (ix) Where there is a risk of a fall from or through the structure of a roof and where there are no other means to prevent a fall, temporary edge protection (railing) and /or scaffolding is installed.
- (x) Perimeter or edge protection is installed on all the exposed edges of a roof which include the perimeters of buildings, the perimeters of skylights or other fragile roof materials, and any openings in the floor or roof.
- (xi) Area below roof work is isolated wherever there is any risk of persons being struck by falling material, debris, tools and /or material from adjacent cranes or structure.
- (xii) safety nets are provided below the area of work at height, wherever possible, such as fragile roof.
- (xiii) A life line support rope arrangement is provided over roof sheet for anchoring of safety belts while carrying out any work on the roof or work at height.

Explanation: Fragile roof means sheets made of asbestos cement or made from similar materials such as Perspex, polyester or other types of plastic fibres.

115. Special Safety Precautions for certain highly hazardous chemical process.— In respect of any factory engaged in carrying out any hazardous chemical processes or such parts of any processes as are specified in the Schedule annexed hereto the following provisions shall be complied -

(1) Process Hazards.— Before commencing any large-scale experimental works or any new manufacture, all possible steps shall be taken to ascertain definitely all the hazards involved both from the actual operations and also from the point of view of the chemical reactions. The properties of the raw materials used, the final products to be made and any byproducts arising during manufacture shall be carefully studied and adequate and suitable provisions shall be made in advance for dealing with any hazards including effects on workers which may be inherent in the process or which may arise during the process of manufacture.

(b) The plant, machinery or equipment concerned with the hazardous process shall be in-charges of such operators only who have been trained and made thoroughly conversant to be fit persons to be in-charge thereof and no other persons shall be allowed to operate the plant, machinery or equipment. The operators

shall be regular employees of the occupier and shall in no case be persons who are employed as contract workers.

(c) The work of the operators shall be supervised on an overall basis by at least one competent person, who for the purpose of this sub-rule shall at least be a graduate in Chemical Engineering or Chemical Technology with specialized knowledge in respect of the processes given in the schedule:

Provided that the Chief Inspector-cum-Facilitator may accept a graduate in chemistry having adequate knowledge of the process given in the Schedule hereto and also adequate experience and training or any other qualifications, if in his opinion they are equivalent to the qualifications aforesaid.

(2) Emergency instructions. — Simple and special instructions shall be framed to ensure that effective measures will be carried out in cases of emergency, to deal with possible escapes of inflammable explosive, toxic or deleterious gases, vapours, liquids, or dust. These instructions shall be in the language to be displayed in bold letters at prominent places in the different sections trained and fully instructed in the prompt action to be taken in such emergencies and also in the general hazards encountered in this process.

(3) Fire and explosion risks.—In any part of the factory where there is a danger due to fire or explosion from inflammable gas, vapour or dust -

(i) No internal combustion engine and no electric motor or other electrical equipment or instruments capable of generating sparks or otherwise causing combustion shall be installed or used in a building engaged in the processes. All electrical fitting shall be of suitable flame-proof construction.

(ii) All pipes carrying hot exhaust or chemicals shall be installed outside the plant building and where this is not possible, these pipes including the flanged portion shall be effectively lagged.

(iii) Where an inflammable atmosphere is likely to occur the soles of footwear worn by workers shall have no metal on them and the wheels of trucks or conveyors shall be constructed of non-sparking materials. Adequate precaution shall be taken to prevent the ignition of explosive or inflammable atmosphere by sparks emitted from locomotives or other vehicles operating in the vicinity.

(iv) Portable electric hand lamps shall not be used unless of an intrinsically safe type and all portable electric tools and appliances connected by flexible wires shall not be used, unless these are of suitable flame-proof construction.

(v) No electric arc lamp or naked light fixed or portable, shall be used and no person shall have in his possession any match or any apparatus of any type for producing a naked light or spark and all incandescent electric lights shall be in double airtight covers.

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

(vii) A sufficient supply of spades, scrapers and pails made from suitable non-sparking material shall be provided for the use of persons employed in cleaning out and or removing residue from any chamber, still, tank or other vessels of material of any inflammable or explosive nature.

(viii) All machinery and plant, particularly pipe lines, belt-drives stirrer on which static electricity is likely to accumulate shall be effectively earthed. Receptacles for inflammable liquids shall have metallic connections to earthen supply tanks to prevent sparking due to static charge build up.

(4) Additional special precautions.—

- (i) The heating of the process if required, shall not be carried out by immersion or other types of heaters deriving energy from electricity.
- (ii) The steam heating coils placed in the lower part of the vessel shall never be kept uncovered or allowed to be heated dry. A substantial amount of the liquid shall be ensured in the vessel after each operation to prevent them from being dry:
- Provided that in case of using vessels filled with high melting products, the steam shall be stopped disconnected to the heating coils, before draining process is started to ensure that the heating coils are free of steam before they are uncovered.
- (iii) Steam shall be supplied through a pressure reducing valve and safety valve correctly set to ensure that the critical temperature of the process is not exceeded.
- (iv) A suitable rupture disc shall be provided on the vessel in addition to the usual spring-loaded safety valve. The pipe duct leading away from the rupture disc shall be taken out of the workroom to minimize resistance at the time of blowing and to avoid any chance of a secondary vapour/ air explosion.
- (v) The vent line of the vessel shall carry a flame arrestor.
- (vi) Breaking of vacuum, if the process is done under vacuum, on account of consideration of special hazards inherent in the process, shall be done only with nitrogen, other suitable inert gas or steam. Compressed air connection to the manifolds of the vessel equipment shall be avoided.
- (vii) There shall be an automatic cut-off device of steam supply or other heating devices as well as of further feed to the vessel set to operate, no sooner the critical temperature is reached, beyond which the reaction, of any, in the vessels is likely to get out of control or reach run-away stage.
- (viii) There shall be arrangement of such a nature that it would be possible to introduce quickly, preferably chilled water or at least ordinary cool water circulation in the steam or other heating coils, no sooner the heating element is cut-off or separate coil or jackets for this purpose shall be provided for the vessel
- (ix) An alarm system shall be provided linked to the pressure indicator of the vessel, so that automatically an audible warning will be given as soon as the pressure exceeds the present safe limit.
- (x) There shall be provided an automatic arrangement of such a nature that if the mechanical agitation, where so provided, fails on account of failure of motive powers or due to broken shaft, broken blades, falling off of blades or such other contingencies, the supply of steam or other heating devices as well as further feed of material would stop automatically.

(5) Exemptions.— If the Chief Inspector-cum-Facilitator is satisfied in respect of any factory or any process that owing to the special conditions or special methods of work adopted or by reason of the infrequency of the process or for other reasons, all or any of the requirements of this rule are not necessary for the protection of persons employed in any factory or any process, he may by order in writing (which he may in his discretion revoke at any time) exempt such factory or such process from all or any of the provisions of this rule, subject to such condition as he may by such order specify and he may, in his discretion add, subtract or modify such conditions as deemed fit by him at any time.

SCHEDULE

- (1) Nitro or Amino processes means the manufacture of nitro or amino derivative of Phenol Toluene and of Benzene or its homologous and the making of explosives with the aid of any of these substances.
- (2) Halogenation process means the addition or substitution reaction with a wide variety of:
- (a) Chlorination agents and systems such as Chlorine gas, Hydrochloric Acid, Sodium/Hypochlorite, Phosgene, Thionyl Chloride (SOCl_2) Sulphonyl Chloride, (SO_2/Cl_2) Phosphorous and such others.

- (b) Fluorination agent such as Fluorine.
- (c) Bromination agents such as Bromine.
- (d) Iodination agents such as Iodine, in liquid or gas phases.
- (3) Aromatization and Isomerization process.

116. Reaction vessels and kettles.— (1) The reaction vessels and kettles, normally work at a pressure not above the atmospheric pressure in which there is likelihood of pressure being created above the atmospheric pressure due to reaction getting out of control or any other circumstances.

(2) In the event of the vessel being heated by electrical means, a suitable thermostatic control device shall be provided to prevent the temperature exceeding the safe limit.

(3) Where steam is used for heating purposes in a reaction vessel, it shall be supplied through a suitable pressure reducing valve or any other suitable automatic device to prevent the maximum permissible steam pressure being exceeded, unless the pressure of the steam in the supply line itself cannot exceed the said maximum permissible pressure.

(4) A suitable safety valve or rupture disc of adequate size and capacity shall be provided to effectively prevent the pressure being built up in the reaction vessel beyond the safe limit. Effective arrangements shall be made to ensure that the released gases, fumes, vapours, liquids or dusts, as the case may be, are led away and disposed off through suitable pipes without causing any hazard. Where inflammable gases or vapours are likely to be vented out from the vessel, the discharge end shall be provided with a flame arrestor.

(5) Every reaction vessel shall be provided with a pressure gauge the appropriate range.

(6) In addition to the devices as mentioned in the foregoing provisions, means be provided for automatically stopping the feed into the vessel as soon as process conditions deviate from the normal limits to an extent which can be considered as dangerous.

(7) Wherever necessary, an effective system for cooling, flooding or blanketing shall be provided, for the purpose of controlling the reaction and process conditions within the safe limits of temperature and pressure.

(8) An automatic auditory and visual warning device shall be provided for clear warning whenever process conditions exceed the present limits. This device, wherever possible, shall be integrated with automatic process correction system.

(9) A notice pointing out the possible circumstances in which pressures above atmospheric pressure may be built up in the reaction vessel, the dangers involved and the precautions to be taken by the operators shall be displayed at a conspicuous place near the vessel.

117. Examination of eye sight of certain workers.— (1) No person shall be employed to operate a crane, locomotive or fork-lift truck, or to give signals to a crane or locomotive operator unless his eye sight and colour vision has been examined and declared fit by a qualified ophthalmologist to work whether with or without the use of corrective glasses.

(2) The eye sight and colour vision of the person employed as specified under sub-rule (1) shall be examined at least once in a year upto the age of 45 years and half yearly thereafter.

(3) Any fee payable for an examination of a person shall be paid by the occupier and shall not be recoverable from that person.

(4) The record of examination or re-examination carried out as required under sub-rule (1) shall be maintained in Form XXXXI.

118. Safety precautions for Thermic Fluid Heaters.— (1) In respect of any factory where thermic fluid heater has been installed (hereinafter called “heater”), the following provisions shall be complied with: -

- (i) All heaters shall be of such construction that, the coils shall be removable for periodic cleaning, visual inspections and hydraulic test.
- (ii) Suitable arrangements shall be made for cooling the furnace effectively in case of power failure to the heater.
- (iii) Before restarting the furnace of heater it shall be effectively purged.
- (iv) The thermic fluid used for heater 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.
- (v) Every Oil or Gas fired heater shall be provided with a photo-resistor actuated audio visual alarm to indicate flame failure and automatic burner cut-off.
- (vi) The stack temperature monitor-cum-controller with audio-visual alarm shall be provided to the heater so as to warn the operator in case the outlet temperature exceeds the specified minimum.
- (vii) All heaters shall be provided with following devices and the same shall be maintained in efficient working order.
 - (a) level indicator in the expansion tank;
 - (b) temperature indicator of thermic fluid;
 - (c) different pressure switches across the inlet and the outlet line of the heater tubes; and
 - (d) temperature control device for the fuel supply to the burner.
- (viii) All devices mentioned in clause (vii) above for oil or gas fired heater shall have inter-locking arrangement with burner so that in case of any pre-determined limits being crossed the supply of fuel and air to burner shall automatically be cut-off.
- (ix) All safety inter-locks when operated shall be indicated on the control panel of the heater by a suitable audio-visual alarm.
- (x) Electrical panel for the heater shall be located near the heater but not so close as to be exposed to spilling or leaking oil.
- (xi) The heater shall be located in a place segregated from other manufacturing activities.
- (xii) Explosion vent for heater shall be so installed that, the release takes place at safe location.
- (xiii) The heater coil including the coil connected to it in the users’ equipment subjected to pressure shall be tested by competent person once atleast in every twelve months. The test pressure shall not be less than twice the operating pressure.
- (xiv) If repairs are carried out to the heater, coil including coil connected to it in users equipment shall be got examined from competent person before taking it into use.
- (xv) Maximum temperature of thermic fluid in the heating of heater coil shall not exceed the figure specified by the manufacturer. The thermic fluid used in heater, shall conform to the specifications prescribed by the manufacturer and shall be tested by competent person for suitability, atleast once in every three months period. Such test shall include test for acidity, suspended matter, ash contents, viscosity and flash point.

(xvi) Cleaning of the internal surface of the heater for removing soot and check up the refractory surface on the inside shall be carried out every month, or as often as required depending upon working conditions. The coils of heater shall be removed and surface of the coil 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.

(xvii) A separate register containing the following information for the heater shall be maintained:-

- (a) weekly checks carried out confirming the effectiveness of the inter-lock;
- (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 interval.

(xviii) The heater when in operation shall always be kept in charge of a training operator.

(2) If the Chief Inspector-cum-Facilitator is satisfied that all or any of the provisions of this rule are not necessary for the protection of the person employed in an factory, he may, by a certificate in writing exempt such factory from all or any of the provisions, specified in sub-rule (1) on such conditions as he may deem fit. Such certificate may, at any time, be revoked by the Chief Inspector-cum-Facilitator without assigning any reason.

119. Driers and Ovens.— (1) Application. - This rule shall apply to Ovens and Driers, except those used in Laboratories or Kitchens of any factory and those which have a capacity below 325 litres.

(2) Definitions.— For the purposes of this rule, “oven and drier” means any enclosed structure, receptable, compartment or box used for baking, drying or otherwise processing any article or substance at a temperature higher than ambient temperature and in which explosive mixture or air and flammable substance is likely to be evolved on account of baking, drying or otherwise processing any article or substance within it.

(3) Location.— Every oven or drier shall be located,

- (a) at a place so as to ensure that the exposure of the employees to the injury from fire, explosion, asphyxiation and toxic materials shall be minimum;
- (b) in such a way that it does not obstruct personnel travel or exit ways;
- (c) at a safe distance from dip-tanks, spray booths and storage rooms or areas of flammable substances.

(4) Separate Electrical Connection.- Electrical power supplied to every oven or drier shall be by means of a separate circuit provided with an isolation switch.

(5) Safety Ventilation.- (a) Positive and effective safety ventilation shall be provided to ensure that concentration of flammable substance in air does not exceed 25 per cent of its lower explosive limit (LEL);

(b) Concentration of 50 per cent, LEL may be allowed if,-

- (i) flammable substance in the drier or oven is continuously monitored;
- (ii) an alarm is sounded if concentration reaches a level of 50 per cent of LEL; and
- (iii) heating system is shut off when the concentration reaches 60 per cent LEL;

(c) A portion of the throttling dampers shall be permanently cut to ensure minimum safety ventilation when set in maximum throttling position.

(6) Explosion Panels.— Explosion Panels shall be provided on the Driers or Ovens to allow release of pressure of any possible explosion. Areas of opening of such vents shall not be less than 2200 sq. cms. for

every one cubic metre of Drier or Oven. Complete release of pressure shall be secured under an internal pressure of 0.25 kg./sq.cm.

(7) Interlocking arrangements.— Electrical heating system shall not be started unless ventilating or circulating fans are put 'ON' and failure of ventilating or circulating fan shall result in automatic cut-off of the electrical supply to the heaters.

(8) Temperature Control.— Every drier or oven shall be provided with an automatic arrangement to cut-off electrical supply to the heaters when the temperature exceeds the pre-set value in respect of the particular processing conditions.

(9) Periodical examination, testing and maintenance.— (i) All parts of Driers and ovens shall be thoroughly examined and properly maintained, various controls and working of the drier or oven shall be tested, at frequent intervals, to ensure its safe operation, by a responsible person of the factory.

(ii) A register showing various tests examinations carried out, from time to time shall be maintained and every entry shall be signed by the responsible person.

(10) Metal frames of driers or ovens shall in all cases be electrically grounded throughout for the safe removal of electrical charges.

(11) No worker shall be assigned any work connected with operation of drier or oven unless he is properly trained in combustion of fuel air mixtures, explosion hazards, sources of ignition and ignition temperature, functions of control and safety devices, etc.

(12) Driers or ovens containing or processing sufficient combustible materials to sustain a fire shall be equipped with adequate fire protection system.

(13) The user's shall check the type and amount of solvent entering the drier or oven to assure that solvent loading does not exceed the capacity of the oven or drier exhaust system.

120. Personal Protective Equipment's.— (1) All employees shall be mandatorily provided with Personal Protective Equipment's (PPEs) as required under any of the provisions of the Code or the rules and such PPEs shall conform to the relevant National Standard. The occupier shall require the employee to use such PPEs and the same shall be maintained in proper working conditions by the occupier. No charges whatsoever shall be charged by the occupier from the employees for provision of such PPEs.

(2) Without prejudice to the generality of the provisions of sub-rule (1), the various types of PPEs to which this rule shall extend for use in factories shall be as specified herein below.

(i) Safety Helmet: - All employees who are likely to be exposed to any hazard which may cause head injury shall be provided with safety helmets conforming to relevant National Standards. All the employees shall be adequately trained on proper use of such PPEs. When work at height is being carried out such safety helmets shall be provided with a nape strap. No safety helmet which has resisted an impact shall be reused. Periodic cleaning and visual inspection to check any deformation in size or shape shall be carried out.

(ii) Protective Footwear:- Protective footwear shall be provided to them for preventing materials being dropped on their feet or nail or other sharp objects penetrating their sole. The type and nature of foot wear to be used at workplaces shall be decided by the occupier based on nature of work being carried at such work places. Proper disinfection shall be carried out to prevent contagious fungal infection of the skin that causes scaling, flaking, and itching of the affected areas. Proper medical care shall be provided to prevent employees from suffering from ingrown nails, metatarsalgia, heel spur, hammer toes and nerve damage after wearing safety shoe.

(iii) Safety Goggles and Spectacles: - The relevant National Standard shall be applicable for eye-protection intended for use in industrial undertakings to provide protection for the eyes of the employees against

hazards such as flying particles and fragments, splashing materials, molten metal's and harmful dust, gases or vapors, aerosols and radiations which are likely to impair vision or damage the eyes. Additional eye protection over their prescription lenses shall be used ensuring that the protective eyewear does not disturb the proper positioning of the prescription lenses.

(iv) Equipment for eye and face protection during welding:- Relevant National Standard shall be followed for the requirements of goggles, hand shield and helmet intended to protect an operator above the shoulder from harmful radiation, spark and particles of hot metal during welding, cutting and similar operations employing a gas flame or electric arc.

(v) Gloves and Protective Clothing:— Suitable gloves, leather gauntlets and mittens conforming to relevant National Standard shall be used for protection of hand of the employees from getting injured. Such protective gloves shall be provided where the hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasion; punctures; chemical burns; thermal burns; and harmful temperature extremes.

Suitable protective clothing as per relevant National Standard available for apron (Rubberized, acid and alkali resistant) shall be used for protection of employees who are likely to be exposed to any hazard which may cause injury to their skin.

(vi) Ear protection when exposed to noise:— Protection against the effects of noise exposure shall be provided when the sound levels exceed the prescribed standards. The relevant National Standard shall be followed while selection of suitable ear protection. Periodic disinfection of reusable ear protectors shall be carried out to eliminate hearing loss caused by infection, discharge, pain, etc. in the ear.

(vii) Respiratory Protection:— Respiratory Protective equipment based on the nature of hazard as per the relevant National Standard shall be provided by the occupier of the factory to the employees for their respiratory protection against dust, fumes, gases, particulates, etc. Clinical Examination and appropriate medical tests shall be undertaken to avoid irritant Dermatitis, nose bridge sores, etc. because of prolong use of respiratory personal protective equipment.

(viii) Other Protective Equipment:— Appropriate personal protective equipment based on the nature of hazards as per the relevant National Standard shall be provided by the occupier to the employees. These shall include the following:-

(a) Safety harnesses with independently secured lifelines where protection against falls cannot be provided by other appropriate means.

(b) Life vests and life preservers where there is a danger of falling into water.

(c) Distinguishing clothing or reflective devices or otherwise conspicuously visible material when there is regular exposure to danger from moving vehicles.

(3) The Inspector-cum-Facilitator may, having regard to the nature of the hazards involved in work and process being carried out, order the occupier or the manager in writing to supply to the employees exposed to particular hazard any personal protective equipment conforming to Relevant National Standards as may be found necessary.

121. Training on health and safety at work.— (1) The occupier of every factory shall ensure that every employee is trained on health and safety at work through a training centre or institute duly approved by the Chief Inspector-cum-Facilitator within ninety days of his first employment and shall undergo a training programme of minimum two days duration which shall consist of topics as are necessary to ensure occupational health and safety while at work.

(2) Every employee in a factory shall undergo a refresher training on health and safety at work through a training centre or institute duly approved by the Chief Inspector-cum-Facilitator within ninety days from

the date of completion of three years of his first training on health and safety at work as specified under sub-rule (1). Said training programme shall be of minimum two days duration which shall consist of topics as are necessary to ensure updation of previously acquired knowledge on occupational health and safety while at work.

(3) Any fee payable for imparting training to an employee under sub-rule (1) and (2) shall be paid by the occupier and shall not be recoverable from the employee.

122. Appointment of Safety Supervisors.— (1) In respect of a factory other than those required to appoint a recognized safety officer under rule 32 of these rules and wherein more than fifty workers are ordinarily employed, the Chief Inspector-cum-Facilitator may direct the occupier of such factories to require the supervisor(s) so appointed in the factory to undergo a two weeks certificate course in Health and Safety.

(2) The syllabus, course fees, mode of examination, other aspects of the above course and the institution conducting the course shall be approved by the Government, from time to time.

123. Inspection of factories.— For the purpose of ascertaining compliance under the provisions of the Code and these rules, a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, shall undergo an inspection conducted by the Inspector-cum-Facilitator or the recognized Third Party Agency, as per the frequency prescribed below based on the risk classification-

(i) Very High Risk - Once in a year for the factories which are categorized as “major accident hazard (MAH) installations” as defined under clause (ja) of rule 2 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, as amended from time to time;

(ii) High Risk - Once in two years for the factories—

wherein the “hazardous process” as defined under clause (zb) of section 2 of the Code is involved or carried out; or

involving isolated storage and industrial activity at a site handling (including transport through carrier or pipeline) of hazardous chemicals less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 but greater than 100 litres or kg at a time;

Medium Risk - Once in three years for the factories other than specified in clause (a) and (b) above but licensed to employ more than 50 workers;

Low Risk - Once in five years for the factories other than specified in clause (a) and (b) above but licensed to employ less than 50 workers.

124. Duties of Inspector-cum-Facilitator in relation to an industrial activity or isolated storage.—The inspector-cum-Facilitator shall –

- (a) inspect the industrial activity or isolated storage at least once in a calendar year;
- (b) Enforce directions and procedures in respect of industrial activities or isolated storages covered under the Code and in respect of pipelines upto a distance of 500m from the outside of the perimeter of an establishment regarding-
 - (i) Notification of major accidents as per rule 5 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989;
 - (ii) Notification of sites as per rules 7 to 8 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989;

- (iii) Safety reports and further information as per rules 10 to 12 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989;
- (iv) Preparation of on-site emergency plans as per rule 13 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and involvement in the preparation of off-site emergency plans in consultation with District Collector or District Emergency Authority in terms of rule 14 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989;
- (v) submission of hazard identification and risk analysis report as per rule 64 of these Rules.

125. General responsibility of the occupier in relation to industrial activity or isolated storage.— (1)

This rule shall apply to –

- (a) an industrial activity, in which a hazardous chemical which satisfies any of the criteria laid in Part I of Schedule I or is listed in Column 2 of Part II of that Schedule prescribed under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 is or may be involved; and
- (b) isolated storage in which there is involved a threshold quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the threshold quantity specified in the Schedule for that chemical in Column 3 thereof prescribed under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.

(2) An occupier who has control of an industrial activity or isolated storage in terms of schedule of sub rule (1) shall provide information on demand to show that he has-

- (a) identified the major accident hazards; and
- (b) taken adequate steps to-
 - (i) prevent such major accidents and to limit their consequences to persons and to environment; and
 - (ii) provide the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and health.

126. Notification of major accidents in relation to industrial activity or isolated storage.— (1) Where a major accident as defined under clause (j) of rule 2 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 occurs on a site as defined under clause (m) of rule 2 of the said Rules or in a pipeline as defined under clause (k) of rule 2 of the said Rules, the occupier shall, within 48 hours, notify the Inspector-cum-Facilitator and Chief Inspector-cum-Facilitator of that accident and furnish thereafter to the Inspector-cum-Facilitator and Chief Inspector-cum-Facilitator a report relating to the accident in installments, if necessary, in Schedule-6 prescribed under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 .

(2) The Inspector-cum-Facilitator and Chief Inspector-cum-Facilitator shall, on receipt of the report under sub rule (1) undertake a full analysis of the major accident and send the requisite information to the Ministry of Environment, Forest and Climate Change, Government of India.

(3) An occupier shall notify to the Inspector-cum-Facilitator steps taken to avoid any repetition of such occurrence on a site.

(4) The Inspector-cum-Facilitator and Chief Inspector-cum-Facilitator shall compile information regarding major accidents and make available a copy of the same to the Ministry of Environment, Forest and Climate Change, Government of India.

(5) The Inspector-cum-Facilitator and Chief Inspector-cum-Facilitator shall inform the employer in writing of any lacunae which in their opinion needs to be rectified to avoid major accidents.

127. Notification of site.— (1) An occupier of an industrial activity or isolated storage to which rule 7 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 apply as specified under rule 6 of the said Rules, shall not undertake any industrial activity or isolated storage unless he has submitted a written report to the Chief Inspector-cum-Facilitator containing the particulars specified in Schedule 7 prescribed under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 at least ninety days before commencing that activity or before such shorter time as the Chief Inspector-cum-Facilitator may agree in writing and for the purpose of this sub-rule, an activity in which subsequently there is or is liable to be a threshold quantity given in Column 3 of Schedules 2 and 3 or more of an additional hazardous chemicals prescribed under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 shall be deemed to be a different activity and shall be notified accordingly.

(2) The Chief Inspector-cum-Facilitator shall, within sixty days from the date of receipt of the report under sub rule (1) examine the report and if on such examination, he is of the opinion that the contravention of the provisions of the act or the rules made thereunder has taken place, he may issue notice for obtaining compliance.

128. Updating of the site Notification.— Where an activity has been reported under rule 7 (1) of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and the occupier makes a change in it (including an increase or decrease in the maximum quantity of a hazardous chemical to which this rule applies which is or is liable to be at the site or at the cessation of the activity) which affects the particulars specified in that report or any subsequent report made under this rule, the occupier shall forthwith furnish a further report to the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator.

129. Safety Reports and Safety Audit Reports.— (1) Subject to the following sub-rules of this rule, an occupier shall not undertake any industrial activity or isolated storage to which rule 10 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 apply as specified under rule 6 of the said rules, unless he has prepared a safety report on that industrial activity or isolated storage containing the information specified in Schedule 8 prescribed under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 has sent a copy of that report to the Chief Inspector-cum-Facilitator at least ninety days before commencing that activity.

(2) The occupier of an industrial activity or isolated storage shall arrange to carry out safety audit as per rule 60 of these rules.

(3) The occupier shall within thirty days of the completion of the audit, send an audit report to the Chief Inspector-cum-Facilitator along with action taken report with respect to the implementation of the audit recommendations.

130. Updating of safety reports.— (1) Where an occupier has made a safety report as specified under sub-rule (1) of rule 10 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, he shall not make any modification to the industrial activity or isolated storage to which that safety report relates which could materially affect the particulars in that report, unless he has made a further report to take account of these modifications and has sent copy of that report to the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator at least ninety days before making those modification.

(2) Where an occupier has made a report as specified under sub-rule (1) of rule 10 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and that industrial activity or isolated storage is continuing, he shall within three years of the date of last such report, make a further report which shall have regard in particular to new technical knowledge which has affected the particulars in the previous report relating to safety and hazard assessment, and shall within thirty days send a copy of the report to the Chief Inspector-cum-Facilitator.

131. Requirement for further information to be sent to the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator.— Where in accordance with rules 10 and 11 of the Manufacture, Storage and

Import of Hazardous Chemicals Rules, 1989, an occupier has sent a safety report and safety audit report relating to an industrial activity or isolated storage to the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator, the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator may, by a notice served on the occupier require him to provide such additional information as may be specified in the notice and the occupier shall send that information to the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator within thirty days.

132. Information to be given to persons likely to be affected by major accidents.— (1) The occupier of an industrial activity or isolated storage to which rule 15 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 apply as specified under rule 6 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, shall take appropriate steps to inform persons outside the site who are likely to be in an area which may be affected by a major accident about—

- (a) the nature of the major accident hazard; and
- (b) the safety measures and the Dos' and Don'ts which should be adopted in the event of a major accident.

(2) The occupier shall take appropriate steps specified under sub rule (1) to inform persons about, an industrial activity or isolated storage before that activity is commenced, except that in respect of an existing industrial activity or isolated storage, the occupier shall comply with the requirements of sub-rule (1) within ninety days of coming into force of these rules.

133. Disclosure of Information.— Where for the purpose of evaluating information notified under rule 5 or rules 7 to 15 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator discloses that information to some other person, that other person shall not use that information for any purpose except for the purpose of the Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator disclosing it as the case may be and before disclosing that information Inspector-cum-Facilitator and the Chief Inspector-cum-Facilitator as the case may be, shall inform that other person of his obligations under this rule.

OFFENCES AND PENALTIES

134. Imposing penalty in certain cases.— (1) The Enquiry Officer shall hold the inquiry for the purpose of imposing penalty under the provisions specified under sub-section (1) of section 111 of the Code.

(2) On receipt of a report from the Inspector-cum-Facilitator, the Enquiry Officer shall commence the enquiry proceedings under sub-section (1) of section 111 of the Code.

(3) For holding an enquiry for the purpose of imposing penalty under the provisions specified under sub-section (1) of section 111 of the Code, the Enquiry Officer shall, in the first instance, issue a notice to the occupier and the manager giving him an opportunity for hearing in the matter within a period of fifteen days from the date of receipt of the report so as to ascertain whether the occupier and the manager has committed contravention of any of the provisions referred in sub-section (1) of section 111 of the Code in respect of which the contravention is alleged to have been committed.

(4) Such notice shall indicate the nature of offence alleged to have been committed, the sections of the Code alleged to have been contravened, and the date of hearing of the matter. A copy of the report of the Inspector-cum-Facilitator shall also be annexed to such notice.

(5) On the date fixed for hearing, the Enquiry Officer shall explain to the occupier and the manager or to his authorized representative, the offence alleged to have been committed by occupier and the manager, indicating the provision of the Code in respect of which the contravention is alleged to have taken place.

(6) The Enquiry Officer shall then give an opportunity to such occupier and the manager to produce such documents or evidence as he may consider relevant to the enquiry and if necessary, the hearing may be adjourned to a future date:

Provided that the Enquiry Officer shall pass the final order within ninety days from the date of first hearing.

(7) If any person fails, neglects or refuses to appear before the Enquiry Officer, the Enquiry Officer may proceed with the enquiry in the absence of such person, after recording the reasons for doing so.

(8) If upon consideration of the evidence produced before the Enquiry Officer, the Enquiry Officer is satisfied that the occupier and the manager against whom the enquiry has been conducted, is liable to penalty under any of the provisions specified under sub-section (1) of section 111 of the Code, he may, by order in writing, impose such penalty as he thinks fit, in accordance with the provisions of the relevant section or sections of the Code.

(9) If, however, the Enquiry Officer is satisfied that the occupier and the manager against whom the enquiry has been conducted for the contravention of provisions of the Code, has not been proved beyond doubt, the Enquiry Officer shall dismiss the case.

(10) Every order made under sub-rule (8) shall specify the provisions of the Code in respect of which the contravention has taken place and shall contain brief reasons for such decision. While imposing penalty, the Enquiry Officer shall have due regard to the provisions of section 111 of the Code. Such penalty shall be remitted into the local treasury under the head of account “59 – Factories and Boilers, 0230 – Labour and Employment, 800 – Other Receipts, 81 – Other items.”

(11) Every such order shall be dated and signed by the Enquiry Officer. The Enquiry Officer shall have powers to pass interim orders or injunction, subject to reasons to be recorded in writing, which he considers necessary in the interest of justice.

(12) The Enquiry Officer shall send a copy of the order made under this rule to the occupier and the manager against whom the enquiry was conducted and the Inspector-cum-Facilitator who has filed the report for conducting enquiry.

(13) A notice or an order issued under these rules shall be served on the occupier and the manager against whom the enquiry has been conducted, in any of the following manner:-

(i) by delivering or tendering it to that owner or his duly authorized representative; or

(ii) by sending it to the occupier and the manager by registered post or speed post to the address of his place of residence or his last known place of residence or the place where he carried on or last carried on, business or personally works or last worked for gain; or

(iii) if it cannot be served in the manner specified under clause (i) or (ii), by affixing it on the outer door or some other conspicuous part of the premises in which that person resides or is known to have last resided or carried on business or personally works or has worked for gain and written report thereof should be witnessed by two persons.

135. Appeal under sub-section (3) of section 111 of the Code.— (1) An appeal under sub-section (3) of section 111 of the Code, arising out of a decision of the Enquiry Officer shall be filed before the Appellate Authority within a period of sixty days from the date on which the copy of the order against which the appeal is filed, is received by the appellant.

(2) An appeal may be admitted after the expiry of the period of sixty days if the appellant satisfies the Appellate Authority that he had sufficient cause for not preferring the appeal within that period.

(3) The appeal shall be accompanied by a copy of order of the Enquiry Officer issued under sub-section (2) of section 111 and a clear statement of facts appealed against, the grounds for appeal and the relevant sections of the Code.

(4) The appeal shall be presented in triplicate by the appellant in person or by his duly authorized representative in writing or by an advocate duly appointed in this behalf or by registered post or speed post and shall be accompanied by fee of five hundred rupees paid in the form of Court Fee Stamp affixed on the Memorandum of appeal.

(5) The appeal sent by post shall be deemed to have been presented to the Appellate Authority on the day it is received.

(6) If on scrutiny, the appeal is found to be in order, it shall be duly registered and given a registration number.

(7) If on scrutiny, the appeal is found to be incomplete, the same shall, after notice to the party, be returned for compliance and if within fifteen days of receipt of such notice or within such extended time as may be granted, the defect is not rectified, the Appellate Authority, may, for reasons to be recorded in writing, decline to register the appeal.

(8) A copy of the appeal shall be served by the Appellate Authority to the Respondent as soon as it is registered, by hand delivery or by Registered post or speed post.

(9) On admission of the appeal, the Appellate Authority may call for the records relating to the proceedings from the Chief Inspector-cum-Facilitator.

(10) The Respondent shall within seven days of service of notice of appeal, file reply on the appeal to the Appellate Authority.

(11) The Appellate Authority may, after giving the parties to the appeal an opportunity of being heard, pass such orders as he may think fit, confirming or setting aside the order appealed against.

(12) The order of the Appellate Authority shall be signed and dated. The Appellate Authority shall have powers to pass interim orders or injunction, subject to reasons to be recorded in writing, which he considers necessary in the interest of justice.

(13) A certified copy of every order passed by the Appellate Authority shall be communicated to the Enquiry Officer and to the parties, as the case may be.

(14) The order passed by the Appellate Authority under sub-rule (11) shall be final and binding.

136. Manner of compounding of offences specified under sub-section (1) of section 114.— (1) The Compounding Officer, on receipt of an application for the purposes of compounding penalty or offence, as the case may be, under sub-section (1) of section 114 shall issue a compounding notice electronically or otherwise, to the alleged accused person for the penalty or offence compoundable under sub-section (1) of section 114.

(2) The person so noticed under sub-rule (1) shall deposit the entire compounding amount by electronic transfer or otherwise, within fifteen days of the receipt of the notice.

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

(4) Where penalty or offence, as the case may be, has been compounded under sub-section (3) -

(i) before the holding the enquiry, or institution of the prosecution, the offender shall not be liable to enquiry or prosecution in respect of such penalty or offence;

(ii) after the holding the enquiry or institution of the prosecution, such compounding shall be brought by the Inspector-cum-Facilitator in writing, to the notice of the Chief Inspector-cum-Facilitator or as the case

may be the court, in which the prosecution is pending and on such notice of the compounding of the penalty or offence being given, the offender shall be discharged.

SOCIAL SECURITY FUND

137. Social Security Fund.— The Social Security Fund established by the Government under the provisions of sub-section (1) of section 115 shall be funded by the amount received from the composition of penalties and offences as specified under sub-section (4) of section 114, the amount of penalty specified under sub-section (6) of section 111 and such other sources as may be specified by the Government, from time to time.

(2) The Fund shall be administered and expanded for welfare of the unorganised workers in such manner as may be approved by the State Occupational Safety and Health Advisory Board, from time to time.

MISCELLANEOUS

138. Common licenses for contractor, factories and to the industrial premises etc.— (1) Notwithstanding anything contained in these rules, any person desirous of obtaining common license for an establishment in respect of a factory, industrial premises for beedi and cigar work and for engaging contractor workers or any combination thereof under the Code shall make an application for a period not more than ten years, to the authority designated by notification for the said purpose by the Government.

(2) The application for common license under sub-rule (1), shall be filed in Form XXXXII and accompanied by total fees as specified in the Goa Occupational Safety, Health and Working Conditions (Labour) Rules, 2026 for contractor, for industrial premises for beedi and cigar work and as specified under the Schedule prescribed under these Rules for factories or any combination thereof.

(3) On receipt of application under sub-rule (1), the authority specified under sub-rule (1) shall make an inquiry.

(4) Where the authority specified under sub-rule (1) is satisfied that common license may be issued in respect of a factory, industrial premises for beedi and cigar work and for engaging contract workers or any combination thereof under the Code, such authority shall issue a license in XXXXIII within forty-five days after receipt of application.

139. Appeal under sub-section (6) of section 119 of the Code.— (1) An appeal under sub-section (6) of section 119 of the Code, arising out of a decision of the authority designated under sub-section (1) of the section 119 shall be filed with the Secretary (Factories and Boilers) within a period of thirty days from the date on which the copy of the order against which the appeal is filed, is received by the appellant.

(2) An appeal may be admitted after the expiry of the period of thirty days if the appellant satisfies the Secretary (Factories and Boilers) that he had sufficient cause for not preferring the appeal within that period.

(3) The appeal shall be accompanied by a copy of order of the authority designated under sub-section (1) of the section 119 and a clear statement of facts appealed against, the grounds for appeal and the relevant sections of the Code.

(4) The appeal shall be presented in triplicate by the appellant in person or by his duly authorized representative in writing or by an advocate duly appointed in this behalf or by registered post or speed post and shall be accompanied by fee of five hundred rupees paid in the form of Court Fee Stamp affixed on the Memorandum of appeal.

(5) The appeal sent by post shall be deemed to have been presented to the Secretary (Factories and Boilers) on the day it is received.

- (6) If on scrutiny, the appeal is found to be in order, it shall be duly registered and given a registration number.
- (7) If on scrutiny, the appeal is found to be incomplete, the same shall, after notice to the party, be returned for compliance and if within 15 days of receipt of such notice or within such extended time as may be granted, the defect is not rectified, the Secretary (Factories and Boilers), may, for reasons to be recorded in writing, decline to register the appeal.
- (8) A copy of the appeal shall be served by the Secretary (Factories and Boilers) to the Respondent as soon as it is registered, by hand delivery or by Registered post or speed post.
- (9) On admission of the appeal, the Secretary (Factories and Boilers) may call for the records relating to the proceedings from the authority designated under sub-section (1) of the section 119.
- (10) The Respondent shall within seven days of service of notice of appeal, file reply on the appeal to the Secretary (Factories and Boilers).
- (11) The Secretary (Factories and Boilers) may, after giving the parties to the appeal an opportunity of being heard, pass such orders as he may think fit, confirming or setting aside the order appealed against.
- (12) The order of the Secretary (Factories and Boilers) shall be signed and dated. The Secretary (Factories and Boilers) shall have powers to pass interim orders or injunction, subject to reasons to be recorded in writing, which he considers necessary in the interest of justice.
- (13) A certified copy of every order passed by the Secretary (Factories and Boilers) shall be communicated to the authority designated under sub-section (1) of the section 119 and to the parties, as the case may be.
- (14) The order passed by the Secretary (Factories and Boilers) under sub-rule (11) shall be final and binding.

Form I

(See rule 3(4))

Application for grant of certificate of competency to a person

- | | | |
|-----|---|---|
| (1) | Name and full address | : |
| (2) | E-mail ID | : |
| (3) | Contact No. | : |
| (4) | Date of birth | : |
| (5) | Permanent Account Number (PAN) | : |
| (6) | Purpose for which Certificate of Competency is sought | : |
| (7) | Educational qualifications as set out in Schedule annexed to rule 3 (Enclose certificates) | : |
| (8) | Details of professional experience in chronological order as set out in Schedule annexed to rule 3 (Enclose certificates) | : |

Name of the Organization	Period of service	Designation	Area of responsibility

- (9) Details of facilities available for carrying out tests, examination and inspection (relevant to item 6 above) and arrangement made for their maintenance and periodic calibration. :
- (10) Whether the applicant has been declared as a competent person under this or any other statute. If so, give details. :
- (11) Membership, if any, of professional bodies :
- (12) Any other relevant information :

DECLARATION:

I, _____ hereby certify the details furnished above are correct to the best of my knowledge and declare that I have not been blacklisted or debarred by any Government Department / Agency / PSU. Further, I undertake to –

- (i) Intimate the Chief Inspector-cum-Facilitator in the event if any change in the facilities at my disposal (either addition or deletion).
- (ii) maintain the facilities in good working order, calibrated periodically as per manufacturers instruction or as per National Standards;
- (iii) to fulfill and abide by all the conditions stipulated in the certificate of competency and instructions issued by the Chief Inspector-cum-Facilitator from time to time.

Place:

Date:

Signature along with seal

List of documents to be submitted along with application:

1. Permanent Account Number (PAN).
2. Documents in support of possessing qualifications, experience and fulfilling other requirements.
3. Valid calibration certificate of the equipment's available at the disposal of the applicant for carrying out tests, examination and inspection.
4. Certificate of Fitness issued by qualified Medical Practitioner.
5. Treasury receipt towards payment of fees.

Form II

(See rule 3(4))

Application for grant of Certificate of Competency to an Institution

- (1) Name and full address of the Institution :
- (2) E-mail ID :
- (3) Contact No. :
- (4) Institution's status i.e. whether firm, association, body, company, society or a trust) (Enclose certificate of incorporation / registration issued by concerned authority) :

- (5) Permanent Account Number (PAN) :
- (6) Purpose for which Certificate of Competency is sought :
- (7) Particulars of persons employed and possessing qualification and experience as set out in Schedule annexed to rule 3 to be given in the Annexure annexed to this form separately for every individual person so employed :
- (8) Details of facilities available for carrying out tests, examination and inspection (relevant to item 6 above) and arrangement made for their maintenance and periodic calibration. :
- (9) Whether the institution has been declared as a competent person under this or any other statute. If so, give details. :
- (10) Membership, if any, of professional bodies :
- (11) Any other relevant information :

DECLARATION:

I, _____ hereby, on behalf of _____ certify the details furnished above are correct to the best of my knowledge and declare that the institution has not been blacklisted or debarred by any Government Department / Agency / PSU. Further, I undertake to –

- (i) notify the Chief Inspector about any change in the details of persons employed (either addition or deletion).
- (ii) maintain the facilities in good working order, calibrated periodically as per manufacturers instruction or as per National Standards;
- (iii) to fulfill and abide by all the conditions stipulated in the certificate of competency and instructions issued by the Chief Inspector-cum-Facilitator from time to time.

Place:

Date:

Signature of Head of the Institution
or of the person authorized to sign
on behalf of Institution along with seal

Designation -

List of documents to be submitted along with application:

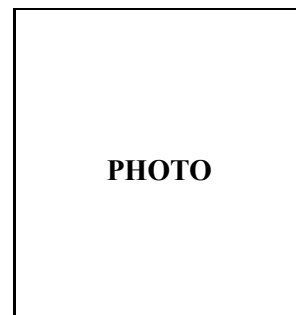
- 6. Certificate of Incorporation / Registration
- 7. Permanent Account Number (PAN)
- 8. Particulars of person's employed in the prescribed Annexure along with documents in support of possessing qualifications, experience and fulfilling other requirements

9. Valid calibration certificate of the equipment's available at the disposal of the applicant for carrying out tests, examination and inspection.
10. Certificate of Fitness issued by qualified Medical Practitioner in respect of persons under the institution who shall carry out tests, examination and inspection.
11. Treasury receipt towards payment of fees.

ANNEXURE

(Use separate Annexure for every individual person)

- (1) Name :
- (2) Full Residential Address :
- (3) Date of Birth :
- (4) E-mail ID :
- (5) Contact No. :
- (6) Educational qualifications :
(Enclose certificates)
- (7) Details of professional :
experience in chronological
order (Enclose certificates)



Name of the Organization	Period of service	Designation	Area of responsibility

- (8) Membership, if any, of professional bodies :
- (9) Any other relevant information :

Signature of the person to be authorized
under the Institution

Signature of Head of the Institution or of the
person authorized to sign on his behalf along
with seal

Designation -

Form III

(See rule 3(5))

Certificate of competency issued to a person

I,....., Chief Inspector-cum-Facilitator, Goa State, in exercise of the powers conferred on me under clause (1) of sub-section (1) of section 2 of the Occupational Safety, Health

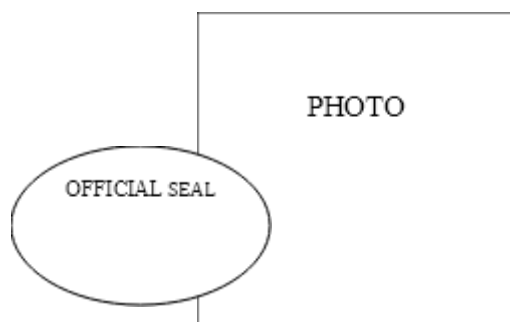
and Working Conditions Code, 2020 and the rules made thereunder, hereby recognize Shri / Smt / Kum to be a competent person for the purpose of carrying out tests, examinations, inspections and certification for stability of buildings / structures / work of engineering construction, dangerous machines, lifts and hoists, lifting machinery and lifting tackles, pressure plants, workplace / equipment free from dangerous fumes / vapour / gas, etc., ventilation systems or exhaust appliance, as the case may be, (strike out words not applicable) used in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code located in the State of Goa. This certificate is valid from to

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

- (i) The tests, examination and inspections shall be carried out in accordance with the provisions the Code and the rules made thereunder and under the direct supervision of the competent person.
- (ii) Competent Person shall be bound by the principles of transparency, impartiality and avoidance of conflict of interest.
- (iii) Copies of certificate of examinations issued by the competent person after due examinations are to be marked to the concerned Inspector-cum-Facilitator in all cases where defects are noticed and repairs are ordered or any restrictions are imposed on its use.
- (iv) Statement of tests, examination and inspections conducted shall be submitted to the Chief Inspector-cum-Facilitator on quarterly basis in the format as may be prescribed.
- (v) _____
- (vi) _____

Station:

Date:



Signature of the Chief Inspector-cum-Facilitator

Note: A person may be recognised competent for more than one purpose.

Form IV

(See rule 3(5))

Certificate of Competency issued to an institution.

I,....., Chief Inspector-cum-Facilitator, Goa State, in exercise of the powers conferred on me under clause (1) of sub-section (1) of section 2 of the Occupational Safety, Health and Working Conditions Code, 2020 and the rules made thereunder, hereby recognize M/s (name of the institution) to be a competent person for the purpose of carrying out tests, examinations, inspections and certification in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, located in the State of Goa by engaging the person(s) and for the purpose(s) as specified overleaf.

This certificate is valid from to

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

- (i) The tests, examination and inspections shall be carried out in accordance with the provisions the Code and the rules made thereunder and shall be carried out under the direct supervision of the person so authorized by the institution.
- (ii) Competent Person shall be bound by the principles of transparency, impartiality and avoidance of conflict of interest.
- (iii) The certificate of competency issued in favour of a person shall stand cancelled if the person authorized leaves by the institution.
- (iv) Copies of certificate of examinations issued by the competent person after due examinations are to be marked to the concerned Inspector-cum-Facilitator in all cases where defects are noticed and repairs are ordered or any restrictions are imposed on its use.
- (v) Statement of tests, examination and inspections conducted shall be submitted to the Chief Inspector-cum-Facilitator on quarterly basis in the format as may be prescribed.
- (v)
- (vii)

Station :

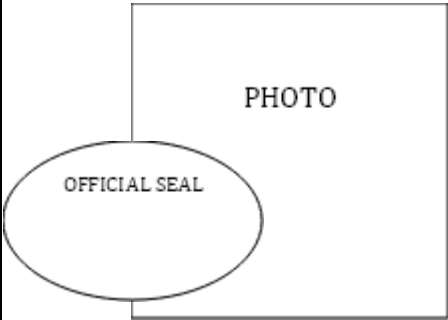
Date:

Signature of the Chief Inspector-cum-Facilitator

Note : An institution may be recognised competent for more than one purpose.

(Reverse of Form IV)

Details of person(s) authorized under the Competent Person

Name	Photo	Purpose
		

Note: Add row for each person in case of more than one person.

Form V

(See rule 4)

Application for Registration/Amendment to Certificate of Registration**A. Establishment Details.**

1. Retrieve details of Establishment through LIN:
2. Name of Establishment:
3. Location and Address of the Establishment:
4. Permanent Account Number:
5. Others details of Establishment:
 - a. Total Number of employees engaged directly in the establishment:
 - b. Total Number of the contract employees engaged:
 - c. Total Number of Inter-State Migrant workers employed:
6. For factories:

Details of the manufacturing process	Full postal address and situation of the factory along with plan approval details	Name and address of the occupier and manager	Maximum number of workers to be employed on any day	Name of the chemicals to be handled and stored along with quantity
(1)	(2)	(3)	(4)	(5)

7. Ownership Type/Sector:
8. Activity as per National Industrial Classification:
9. Details of Selected NIC Code:
10. Identification of the establishment e-sign/ digital sign of employer/ representative:

B. Details of Employer: -

1. Name & Address of Employer / Occupier:
2. Designation:
3. Father's/ Husband's Name of the Employer:
4. Email Address, Telephone& Mobile No :

C. Manager Details

1. Full name & Address of Manager or person responsible for supervision and control of the Establishment
2. Address of Manager:
3. Email Address, Telephone& Mobile No:

E. Others Details:-

Signature/E-sign/digital sign of employer

Dated:-

Place:-

Form VI

(See rule 5)

Certificate of Registration of Establishment

Registration No. Date:

A Certificate of Registration containing the following particulars is hereby granted under sub-section (3) of section 3 of the Occupational Safety, Health and Working Conditions Code, 2020 (Act 37 of 2020)

to..... (Name of the establishment)

1. Nature of work carried on in the establishment – Factory

2. Details of the establishment:

a. Total Number of employees engaged directly in the establishment:

b. Total Number of the employees engaged through contractor:

c. Total Number of Contractors and their details:

c. Number of inter-state migrant workers engaged:

3. For factories:

Details of the manufacturing process	Full postal address and situation of the factory along with plan approval details	Name and address of the occupier and manager	Maximum number of workers to be employed on any day
(1)	(2)	(3)	(4)

4. Amount of registration fee paid:

5. Remarks of Registering Officer

Signature E -Sign/DSC of Registering Officer
along with designation

Place:

Date:

Conditions of Registration:

(1) Every Certificate of Registration issued under rule 5 shall be subject to the following conditions, namely:

(a) the certificate of registration shall be non-transferable.

(b) the number of workers, employees employed in an establishment directly and contract employees shall not, on any day, exceed the maximum number specified in the certificate of registration.

(c) Save as provided in these rules, the fees paid for the grant of registration certificate shall be non-refundable.

(2) The employer shall intimate the change, if any, in the number of workers, employees or the conditions of work to the registering officer within 30 days.

(3) The employer shall, within thirty days of the commencement and completion of any work, intimate to the Inspector-cum-Facilitator, having jurisdiction in the area where the proposed establishment or as the

case may be work is to be executed, intimating the actual date of the commencement or, as the case may be, completion of establishment such work electronically.

- (4) A copy of the certificate of registration shall be displayed at the conspicuous places at the premises where the work is being carried on.

Form VII

(See rule 5(2))

Register of Establishment

Sr. No.	Name and address of the establishment	Registration No. and Date	Name and address of the Employer	Contact details and e-mail ID	Number of employees employed	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)

Form VIII

(See rule 9)

Notice of Commencement

1. Registration No.:
2. Name and Full Address of Establishment:-
3. Name and Designation of employer (who has ultimate control over the affairs of the establishment):-
4. Manufacturing process to be carried out in the Establishment:-

I, _____ hereby intimate that the establishment bearing Registration No.dated will be used to commence the manufacturing process as stated above, with effect from

Signature of the Employer

Form IX

(See rule 12)

Format for Letter of appointment

- (i) Name of employee:
- (ii) Father's name:
- (iii) Aadhar number:
- (iv) Labour Identification Number (LIN) of the establishment:
- (v) Universal Account Number (UAN)/Insurance Number(ESIC):
- (vi) Designation:

- (vii) Category of skill:
- (viii) Date of joining:
- (ix) Wages, Basic Pay & Dearness Allowance:
- (x) Other allowance including accommodation whichever is/are applicable:
- (xi) Avenue for achieving higher wages/higher position:
- (xii) Applicability of social security EPFO and ESIC benefits applicable:
- (xiii) Health check-up:
- (xiv) Broad Nature of duties to be performed:
- (xv) Any other information:

Signature
Occupier/Manager

Form X

(See rule 13)

Report of accident including dangerous occurrence resulting in death or bodily injury

Employer's ESIC Code Number: _____ Registration Number: _____

Name and address of Local ESIC-Office: _____ Licence Number: _____

NIC Code Number _____

(As given in the licence)

1. Name and address of factory :
2. Name, address and telephone number of the occupier :
3. Nature of Industry :
4. Date, shift and hour of accident or dangerous occurrence :
5. Department/section and exact place where the accident or dangerous occurrence took place :
6. (a) Describe briefly how the accident or dangerous occurrence took place :
- (b) If caused by machinery- :
- (i) Give the number of machine and the part causing the accident or dangerous occurrence :
- (ii) State whether it was moved by mechanical power at the time of accident or dangerous Occurrence :
- (c) Give the total number of persons injured /killed :

Number of persons injured		Number of persons killed	
Inside the factory	*Outside the factory	Inside the factory	*Outside the factory

7. Names and addresses of witnesses : (1) _____
(2) _____
8. Cause of accident or dangerous occurrence :

*If in any accident/dangerous occurrence, persons outside the factory premises are injured or killed, please furnish the information to the extent available.

Note:- Details regarding injury and persons injured / killed should be submitted in the format given in the below annexure separately for every employee injured or killed

ANNEXURE

1. Particulars of injured / killed person -

- (a) Name:
- (b) Age:
- (c) Sex:
- (d) ESIC Insurance No.:
- (e) Sr. No. in the register of employees:
- (f) Address:
- (g) Precise occupation:
- (h) Nature of job:

2. Particulars of injury -

- (a) Fatal (time and date of death):
- (b) Non-fatal (if serious, give the extent of injury such as loss of limb/sight and hearing, fracture, permanent, impairment, severe burns, etc.):
- (c) State whether the injured person was disabled for more than 48 hours :
- (d) Date and hour if returned to work:
- (e) Location of injury (i.e. part of body such as right leg, left hand, left eye, etc. injured) :

3. (a) State exactly what the injured person was doing at the time of accident or dangerous occurrence :

- (b) Does this work fall in the category of hazardous/dangerous process or operation
- (c) In your opinion, was the injured person at the time of accident or dangerous occurrence -
 - (i) acting in contravention of provisions of any law applicable to him; or
 - (ii) acting in contravention of any orders given by or on behalf of his employer; or
 - (iii) acting without instructions from his employer:

4. (a) Hour at which the injured person started work on the day of accident or dangerous occurrence
- (b) Whether wages in full or part are payable to him for the day of the accident or dangerous occurrence
5. In case the accident or dangerous occurrence took place while travelling in the employers' transport, state whether -
 - (a) the injured person was travelling as a passenger to and from his place of work;
 - (b) the injured person was travelling with the express or implied permission of his employer;
 - (c) the transport is being operated by or on behalf of the employer or some other person by whom it is provided in pursuance of arrangements made with the employer;
 - (d) the vehicle is being/not being operated in the ordinary course of public transport service.
6. In case the accident or dangerous occurrence took place while meeting emergencies state -
 - (a) its nature; and
 - (b) whether the injured person at the time of accident or dangerous occurrence was employed for the purpose of his employer's trade or business in or above the premises at which the accident or dangerous occurrence took place.
7. (a) Physician, dispensary or hospital from whom or in which the injured person received or is receiving treatment.
- (b) Name of dispensary/panel doctor selected by the injured person:

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

Signature of occupier / Manager

Name (in block letters)

Address and Tel. No.:

Dated:-

(To be completed by the Inspector-cum-Facilitator)

1. Date of receipt of the report:
2. District:
3. (a) Number allotted to accident involving reportable injury and/or fatality:
(b) Number allotted to dangerous occurrence involving reportable injury and/or fatality:
4. Date of investigation:
5. Classification of accident:
 - (a) Cause wise (give code):

- (b) Industry wise (give NIC code):
- (c) Dangerous operation wise (give Schedule number):
- (d) Hazardous process wise (section 2(za):
- (e) Occupation wise (NCO code number):
6. Result of investigation:
7. Remarks if any:

Form XI

(See rule 13)

Report of dangerous occurrence which does not result in bodily injury

Registration No. :

Licence No. :

NIC Code No. :
(As given in the licence)

1. Name and address of factory :
2. Name, address and telephone number of occupier :
3. Name of the manager :
4. Nature of industry :
5. Department/Section and exact place where the dangerous occurrence took place :
6. Date and hour of dangerous occurrence :
7. Type of dangerous occurrence :
(see clause 2 of Schedule annexed to rule 13)
8. State exactly what happened :

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

Signature of occupier/manager

Name (in block letters):

Address and Tel. No.:

Date of dispatch of report:

(To be completed by the Inspector-cum-Facilitator)

1. Date of receipt of the report :
2. District :
3. Number allotted to the dangerous occurrence :
not involving injury and/or death
4. Date of investigation :

5. Cause :
6. NIC-Code (as given in the licence) :
7. Result of investigation :

Date:

Signature of the Inspector-cum-Facilitator
Name (in block letters)

Form XII
(See rule 14)

Notice of poisoning or disease

(This Notice shall submitted separately for each employee in case of more than one employee)

Employer's ESIC Code No. _____ Registration No.: _____
ESIC Insurance No. _____ Licence No. _____
Name and address of the injured person _____ NIC Code No. _____
(As given in the licence)
Local ESIC Office _____

1. Name and address of factory :
2. Name, address and telephone number of occupier :
3. Nature of industry :
4. Particulars of affected employee—
 - (a) Name :
 - (b) Age :
 - (c) Sex :
 - (d) Sr. No. as per register of adult/adolescent employee :
 - (e) Address :
 - (f) Precise occupation (detailed) :
 - (g) Nature of job (detailed) :
5. Nature of poisoning/disease (detailed) :
6.
 - (a) Harmful agent or process to which poisoning or disease is attributed :
 - (b) Approximate date of beginning and cessation of exposure of the employee to the harmful agent or process :
7. Has the case been reported to the Medical Officer/ Administrative Medical Officer, EISC/Medical Inspector-cum-Facilitator : Yes / No

Signature of Occupier/Manager:
Name (in capital letters)
Telephone No.

Note: This notice should be sent forthwith to the
(i) Chief Inspector-cum-Facilitator

- (ii) Medical Officer
(iii) Administrative Medical Officer, ESIC

(To be filled in by the Department)

Number of the case :

Remarks :

Signature

Name (in block letters)

Date:-

Designation

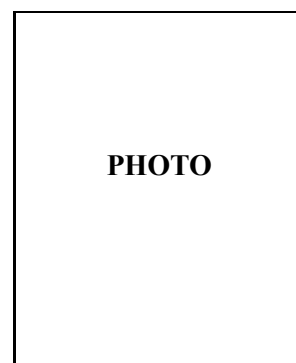
Form XIII

(See rule 31 (1), 34 (1) and 96 (1))

Application for Recognition as Safety Officer / Welfare Officer / Factory Medical Officer

(Strike out words which are not applicable)

- (1) Name of the Applicant :
(2) Full Residential Address :
(3) Date of Birth :
(4) E-mail ID :
(5) Contact No. :
(6) Permanent Account Number :
(7) Recognition as Safety Officer /
Welfare Officer / Factory
Medical Officer



- (8) Educational qualifications :

(Enclose certificates)

- (9) Details of professional :
experience, if any (in
chronological order)

Name of the Organization	Period of service	Designation	Area of responsibility

- (10) Knowledge of Konkani (for Safety Officer :
and Welfare Officer)
(11) Membership, if any, of professional bodies :
(12) Any other relevant information :

Declaration by the Applicant:

I,....., hereby declare that the information furnished above is true and I undertake to fulfill and abide by the conditions stipulated in the certificate of recognition and instructions issued by the Chief Inspector-cum-Facilitator from time to time, if any.

Place:

Date:

Signature

Form XIV

(See rule 31 (2), 34 (2) and 96 (2))

Certificate of Recognition issued to a Safety Officer / Welfare Officer / Factory Medical Officer

(Strike out words not applicable)

I,....., Chief Inspector-cum-Facilitator, Goa State, in exercise of the powers conferred on me under rule 31 (1) / 34(2) / 96 (2) (strike out words not applicable), hereby recognize Shri /Kum. / Smt / Dr (name of the person) for appointment asin a factory situated in the State of Goa. (strike out words not applicable)

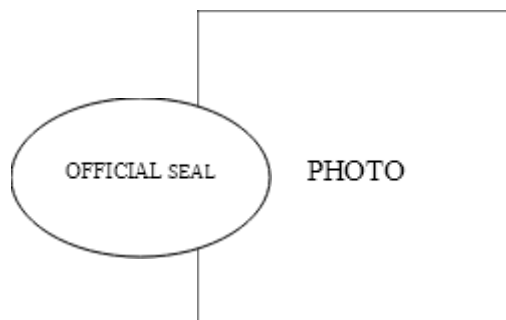
This recognition is issued subject to the conditions stipulated hereunder:-

(i) _____

(ii) _____

Station:

Date:



Signature of the Chief Inspector-cum-Facilitator

Form XV
(See rule 37)
Register of compensatory holidays

Sr. No.	Serial number in the register of adult worker	Name	Group or relay number	Number and date of exempting order or rule under which it is granted	Year	Date of weekly holidays lost due to the exempting order in				Dates of Compensatory Holiday given in				Lost weekly holidays carried to the next year	Remarks
						January to March	April to June	July to September	October to December	January to March	April to June	July to September	October to December		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.

Note: This register shall be preserved for a period of three years after the last entry.

Form XVI
(See rule 38)
Overtime Muster Roll

Month ending _____ 20__

Sr. No.	Serial number in the register of adult workers	Name of workers	Department	Normal hours of work prescribed		Date	Overtime worked	
				Daily	Weekly		Hours	Total overtime hours
1.	2.	3.	4.	5.	6.	7.	8.	9.

Normal rate pay per hour	Overtime rate pay during the month per hour	'Earnings during the month'			Date on which overtime payment made
		Normal	Overtime	Total (12 + 13)	
10.	11.	12.	13.	14.	15.

- Note:* (1) This register is to be maintained in respect of all workers who works for more than eight hours in a day or for more than forty-eight hours in any week, as the case may be.
(2) This register shall be preserved for a period of three years after the last entry.

Form XVII
(See rule 40)

Notice of period of work for Adult workers

Name of the factory:
Address:
First day of the week:

Registration number:
Licence number:
NIC Code number:
(As given in the licence)

Periods of work	Men												Women												Identification of the group* Alphabet assigned A,B,C, etc.	Nature of work	Remarks
	Total number of men employed						Total number of women employed																				
	A	B	C	D	E	F	A	B	C	D	E	F	A	B	C	D	E	F									
Groups	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6									
Relays																											
On working days																											
From.....																											
to																											
From																											
to																											
From																											
to																											
On partial																											
Working days																											
From....																											
to																											
From....																											
to																											

* Date on which this notice is first exhibited: Describe the groups and explain the nature of work against Identification letter marked A, B, C, D, E..... rest interval for each shift should be indicated clearly

Name (in block letters)
Signature of Occupier / Manager
Date:

Form XVIII
(See rule 41)
Register of adult workers

Sr. No.	Name	Date of birth	Sex	Residential address	Father's husband's name	Date of appointment	Group to which worker belongs		Number of relay, if working in shifts	Remarks
							Alphabet assigned	Nature of work		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.

Form XIX

(See rule 42)

Register of adolescent workers

Sr. No.	Name	Date of birth	Sex	Residential address	Father's husband's name	Date of first employment	Number & date of certificate of fitness	Token number	Alphabet assigned to group to which worker belongs	Number of relays if working in shifts	Remarks
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.

Form XX
(See rule 43)

Muster Roll

Sr. No.	Serial number in the register of Adult/Adolescent worker	Name of worker	Father's/ husband's name	Nature of work	Date of birth	Date of appointment	Group to which the worker belongs		Number of relay if working in shifts	Adolescent if certified	
							Occupation	Alphabet assigned		Number and date of certificate	Token number
1	2	3	4	5	6	7	8	9	10	11	12

Period of work	Daily attendance for the month of	Total number of mandays worked	Mandays lost due to			
			Strikes	Lay off	Lock out	Leave without pay
13	14	15	16	17	18	19
						20

Any other reason	Total of col. 15 to col. 20	Number of festival and national holidays	Number of weekly holidays (off) paid for	Total mandays paid for*	Remarks
20	21	22	23	24	25

*Sum of col. 14 + col. 18 + col. 22 + col. 23 + col. 15 to 17, if paid for:

Form XXI

[See rule 44]

Attendance Card

NAME OF THE FACTORY

NAME OF OCCUPIER

NAME OF WORKER

Month of _____													
Date	Reporting time	Relieving time	Rest interval		Overtime hours	Endorsement of employer or his agent	Date	Reporting time	Relieving time	Rest interval		Overtime hours	Endorsement of employer or his agent
			From	to						From	to		
1							17						
2							18						
3							19						
4							20						
5							21						
6							22						
7							23						
8							24						
9							25						
10							26						
11							27						
12							28						
13							29						
14							30						
15							31						
16													

NOTE

The mark "H" shall be made in the column relating to any day on which a weekly holiday is given and "A" if the worker is absent on any other days.

Form XXII
(See rule 45)
Register of Leave with wages

1. Name:
2. Sex:
3. Father's/husband's name:
4. Serial number in the register of adult / adolescent workers:
5. Department:
6. Designation:
7. Date of joining employment:
8. Date of discharge/dismissal/quitting employment/superannuation/
death while in service:
9. Date of payment in lieu of leave with wages due in such cases:
10. Whether leave was refused

Calendar year of service (i.e. previous year)	Leave due as on 1 st January Of the year in col.1		Leave availed during the year			Leave refused out of regular leave mentioned in column 3
	Refused	Regular	Refused	Regular	Dates	
1.	2.	3.	4.	5.	6. 7.	8.

Number of working days for computation of leave During the year mentioned in column (1)				Regular leave earned for the year mentioned in column (1)		Balance of leave admissible on 1 st January of the year following the year mentioned in column (1)	
Days worked	Lay off	Maternity leave upto 12 weeks	Leave with wages enjoyed	Total (9) to (12)	Refused (Col. 2+8-4)	Regular (Col.3+14-5-8)	
9.	10.	11.	12.	13.			
					15.	16	

Leave period (i.e. col.(4) + col (5) in days	Normal rates of wages excluding of any overtime as well as bonus but including of dearness allowance (Rs.)	Details of wages paid			Signature
		Cash equivalent of the advantages accruing through the concessional sale of food grains and other articles	Rates of wages for leave with wages paid (Rs.) {Col. (18) + Col. (19)}	Total wages paid for the period of leave with wages enjoyed (Rs.){Col.(17) + Col.(20)}	
17.	18.	19.	20.	21.	22.

- Notes: (1) Separate register should be maintained for adult/adolescent
(2) A separate page should be maintained in respect of each worker.
(3) Leave earned in column (14) is calculated on the basis of number of days worked given in column (9)
(4) Delete which is not required.

Form XXIII
(See rule 46)
Leave Book

- 1 Name:
- 2 Sex:
- 3 Father's/husband's name:
- 4 Serial number in the register of adult/adolescent workers:
- 5 Department:
- 6 Designation:
- 7 Date of joining employment:
- 8 Date of discharge/dismissal/quitting employment/superannuation/death while in service:
- 9 Date of payment in lieu of leave with wages due in such cases:
- 10 Whether leave was refused:

Calendar year of service (i.e. previous year)	Leave due as on 1 st January Of the year in col.1		Leave availed during the year			Leave refused out of regular leave mentioned in column 3
	Refused	Regular	Refused	Regular	Dates	
1.	2.	3.	4.	5.	6. 7.	8.

Form XXIV

[See rule 47]

Register of accidents and dangerous occurrences

Serial number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Date and time of notice	Name and serial number of the person involved in the register of adult/adolescent register	ESIC insurance number	Date	Time	Place	Cause of accident/major accident/dangerous occurrences	Nature of injury /dangerous occurrences	What exactly was the injured person, if any, doing at that time?	Name of the person giving the notice	Name, address and occupation of two witnesses	Date of return of injured person to work	Number of days the injured person was absent from the work including holidays and off-days	Signature and designation of the person who make the entry with date	

(10)	Average number of workers employed daily i.e. Man days worked divided by number of days worked NIC Code wise (See Explanatory note 'C')					
	(a)	Adults	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
	(b)	Adolescent	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
			Total		:	
(11)	Total number of man-hours worked including overtime excluding rest intervals NIC Code wise (see Explanatory note 'D')					
	(a)	Adults	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
	(b)	Adolescent	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
			Total		:	
(12)	Average number of hours worked per week NIC Code wise					
	i.e. Total man hours worked (Average daily employment) X (Number of weeks of the factory worked) (See Explanatory note 'E')					
	(a)	Adults	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
	(b)	Adolescent	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
			Total		:	
(13)	In respect of factories carrying on processes or operations declared dangerous under section 82 of the Code, furnish the following information					
	Name of dangerous process or operation carried on			Average number of persons employed daily in each of the process or operation given (See Explanatory note 'C')		
Male				Female	Transgend er	
	(1)			(2)	(3)	(4)
	(i)					
	(ii)					
	(iii) etc.					
(14)	In respect of factories carrying on 'hazardous process' as defined in section 2 (za) of the Code, furnish the following information					
	Name of the industry as per THE FIRST SCHEDULE of Code:					

	Name of hazardous process		Average number of persons employed daily in each of the process or operation given (See Explanatory note 'C')			
	1		2			
	(i)					
	(ii)					
	(iii) etc.					
Leave with wages						
(15)	Total number of workers employed during the year (see Explanatory note 'F')					
	(a)	Adults	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
	(b)	Adolescent	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
(16)	Number of workers who were entitled to annual leave with wages during the year					
	(a)	Adults	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
	(b)	Adolescent	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
(17)	Number of workers who were granted 'Leave' during the year (see Explanatory note 'G')					
	(a)	Adults	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
	(b)	Adolescent	(i)	Male	:	
			(ii)	Female	:	
			(iii)	Transgender	:	
(18)	(a)	Total number of workers discharged/dismissed from the service/quit employment/superannuation/died while in service during the year			:	
	(b)	Number of workers in respect of whom wages in lieu of leave were paid.			:	
Safety Officer						
(19)	(a)	Is the factory required to appoint Safety Officer(s) under section 22 of the Code and the rules made thereunder?			:	Yes ☐ No ☐
	(b)	Number of Safety Officers appointed			:	
Health and Safety Policy						
Information to be furnished only by -						
	(a)	Factories categorized as Major Accident Hazard (MAH) installation or carrying on hazardous process as defined under section 2 (za) of the Code or involving isolated storage or industrial activity at a site handling (including transport through carrier or pipeline) of hazardous substance less than the threshold quantities specified in column 3 of Schedules 2 and 3 of the Manufacture,				

		Storage and Import of Hazardous Chemicals Rules, 1989 but greater than 100 litres or kg at a time or carrying out processes or operations declared to be dangerous under section 82 of the Code; and		
	(b)	Factories other than (a) but employ ordinarily, in case of factories registered under-		
		(i)	section 2(w)(i) but employing 50 or more workers; and	
		(ii)	section 2(w)(ii) but employing 150 or more workers.	
(20)	Has the factory formulated health and safety policy?		:	Yes ☐ No ☐
	Safety Committee			
	For factories required to constitute Safety Committee under section 22 of the Code and the rules made thereunder.			
(21)	(a)	Is safety committee appointed?	:	Yes ☐ No ☐
	(b)	If more than one committee exists, give numbers.	:	
	Emergency Plan			
	For factories required to draw up an onsite emergency plan under section 84 of the Code and the rules made thereunder.			
(22)	Has the factory got an on-site emergency plan?		:	
	Medical Facilities			
(23)	Information to be furnished only by -			
	(a)	Factories categorized as major accident hazards (MAH) installation or carrying on hazardous process as defined under section 2(za) of the Code and licensed to employ upto 500 workers -		
		(i)	Number of Factory Medical Officers (appointed on retainer ship basis or part-time basis)	:
		(ii)	Number of ambulance vans available with the factory directly or factory arrangement	:
		(iii)	Number of Occupational Health Centres provided	:
	(b)	Factories categorized as major accident hazards (MAH) installation or carrying on hazardous process as defined under section 2(za) of the Code and licensed to employ above 500 workers -		
		(i)	Number of full time Factory Medical Officers	:
		(ii)	Number of ambulance vans available with the factory directly or factory arrangement	:
		(iii)	Number of Occupational Health Centres provided	:
	(c)	Factories other than (a) and (b) above and employing more than 500 workers:-		
		(i)	(a) Number of part time Factory Medical Officers for factories employing upto 1000 workers	:
			(b) Number of full time Factory Medical Officers for factories employing above 1000 workers	:
		(ii)	Number of ambulance vans available with the factory directly or factory arrangement	:
		(iii)	Number of ambulance rooms provided	:

	Competent Supervisor		
	[Information to be furnished only by factories covered under section 2(za) of the Code]		
(24)	(a)	Number of competent Supervisors appointed	:
	(b)	Number of competent supervisors who have undergone Certificate Course in Health and Safety as required under rule 101 of the Rules	:
	Canteen		
(25)	Is there a canteen provided in the factory as required under section 24 of the Code? (Only those factories will furnish information wherein 100 or more workers including contract labourers are ordinarily employed)		: Yes ☐ No ☐
	Shelter or Rest Rooms and Lunch Rooms (Only those factories will furnish information wherein more than 50 workers are ordinarily employed)		
(26)	(a)	Are there adequate, suitable and shelters or rest rooms provided in the factory as required under section 24 of the Code?	: Yes ☐ No ☐
	(b)	Is there a lunch room provided in the factory provided in the factory as required under section 24 of the Code?	: Yes ☐ No ☐
	Crèches		
(27)	Is there a crèche provided in accordance with the provisions prescribed under section 24 of the Code? (For factories wherein than 50 women workers are ordinarily employed)		:
	Welfare Officers		
(28)	(a)	Number of Welfare Officers required under section 24 of the Code (For factories wherein 250 or more workers are ordinarily employed)	:
	(b)	Number of Welfare Officers actually appointed	:

(29). (a) Accident and Dangerous Occurrences resulting into death or bodily injury:

Categories	Accident and Dangerous Occurrence involving								
	Fatal Injuries			Non-fatal injuries			Fatal Injuries and Non-fatal injuries		
	Number of			Number of			Total Number of		
	Accidents/ Occurrences	Persons died		Accidents/ Occurrences	Persons injured		Persons injured and died		
		Inside the Factory	Outside the Factory		Inside the Factory	Outside the Factory	Accidents/ Occurrences (2+5)	Inside the Factory (3+6)	Outside the Factory (4+7)
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Accidents including dangerous occurrence resulting in death or bodily injury.									
(2) Dangerous occurrence resulting in death or bodily injury.									

(b). Dangerous occurrence which does not result in death or bodily injury.

Category	Number
Dangerous occurrence which does not result in death or bodily injury	

(c). for injuries occurring inside the factory:

Number of injuries occurring in								
Hazardous process specified under section 2(za) of the Code			Dangerous operations specified under section 82 of the Code			Others		
Number of			Number of			Number of		
Accidents	Persons injured		Accidents	Persons injured		Accidents	Persons injured	
	Fatal	Non-fatal		Fatal	Non-fatal		Fatal	Non-fatal
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

- (d) (i) Non-fatal injuries (workers injured) during the :
year in which injured workers returned to
work during the same year.
- (aa) Number of injuries :
- (bb) Man days lost due to injuries :
- (ii) Non-fatal injuries (workers injured) occurring :
in the previous year in which injured workers
returned to work during the year to which this
return relates
- (aa) Number of injuries :
- (bb) Man days lost due to injuries (this :
should be the total man days lost
during the previous year as well as in
the current year)
- (e) Non-fatal injuries occurring in the year in which :
injured workers did not return to work during the
year to which this return relates
- (aa) Number of injuries :
- (bb) Man days lost due to injuries :

Certified that the information furnished above is, to the best of my knowledge and belief, correct.

Signature of the manager

Name (in block letters)

Date:

Address and telephone No.

EXPLANATORY NOTES

(A). “Establishment in Public Sector” means an establishment owned, controlled or managed by (i) the Government or the Department of the Government, or (ii) a Government Company as defined in section 2 (45) of the Companies Act, 2013 (18 of 2013), or (iii) a Corporation established under Central or State Act, which is owned, controlled or managed by the Government or (iv) a Local Authority.

“Establishment in Joint Sector” means an establishment managed jointly by the Government and Private Entrepreneur.

“Establishment in Private Sector” means an establishment which is not an establishment in Public Sector or Joint Sector or Cooperative Sector.

(B). Man days working should be the aggregate number of attendance of all the workers, covered under the Act, in all the working days. In reckoning attendance, attendance by the temporary as well as permanent employees should be counted, and all employees should be counted, and all employees should be included, whether they are employed directly or under contractors (Apprentices, who are not covered under Apprentices Act, 1961, are also to be included). Attendance on separate shifts (e.g. night attendance and day shifts) should be counted separately. 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.

(C). The average number of workers employed daily should be calculated by dividing the figures of “mandays worked” by number of days worked in the year. For seasonal factories, the average number of workers employed daily during the working season and off-season should be given separately.

- (D). The “Total number of Manhours worked” should be the TOTAL ACTUAL HOURS WORKED BY ALL the workers during the year excluding rest intervals but including overtime worked.
- (E). The “Average Number of Hours worked per week” should be calculated by dividing the “Total number of Manhours worked” by the product of “Average number of workers employed daily” in the factory during the year (item 10) and 52 (i.e. number of weeks during the year). In other words, item 11 divided by (item 10 x 52) = item 12. In case the factory has not worked for the whole year, the number of weeks during which the factory worked should be used in the place of figure 52. For seasonal factories, the “Average Number of Hours Worked per week” during the working season and off-season should be given separately.
- (F). All persons who have been on roll even for a single day during the year should be taken and that a particular worker is counted once only.
- (G). A particular worker is to be counted once only even if the same worker has been granted leave more than once during the year.

Form XXVI

(See rule 61(2))

Application for recognition to an institution as Occupational Safety and Health Auditor

- (1) Name and full address of the Institution :
- (2) E-mail ID :
- (3) Contact No. :
- (4) Institution’s status i.e. whether firm, association, body, company, society or a trust) (Enclose certificate of incorporation / registration issued by concerned authority) :
- (5) Permanent Account Number (PAN) :
- (6) Particulars of persons employed and possessing qualification and experience as set out in Schedule annexed to rule 61 to be given in the Annexure annexed to this form separately for every individual person so employed :
- (7) Membership, if any, of professional bodies :
- (8) Any other relevant information :

DECLARATION:

I, _____ hereby, on behalf of _____ certify the details furnished above are correct to the best of my knowledge and declare that the institution has not been blacklisted or debarred by any Government Department / Agency / PSU. Further, I undertake to –

- (i) notify the Chief Inspector about any change in the details of persons employed (either addition or deletion).

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

Place:

Date:

Signature of Head of the Institution
or of the person authorized to sign
on behalf of Institution along with seal

Designation -

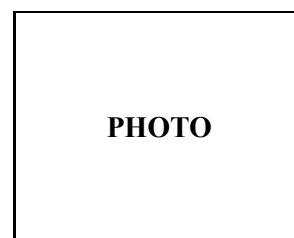
List of documents to be submitted along with application:

1. Certificate of Incorporation / Registration
2. Permanent Account Number (PAN)
3. Particulars of person's employed in the prescribed Annexure along with documents in support of possessing qualifications, experience and fulfilling other requirements
4. Certificate of Fitness issued by qualified Medical Practitioner in respect of persons under the institution who shall conduct occupational safety and health audit and certification.
5. Treasury receipt towards payment of fees

ANNEXURE

(Use separate Annexure for every individual person)

- (1) Name :
- (2) Full Residential Address :
- (3) Date of Birth :
- (4) E-mail ID :
- (5) Contact No. :
- (6) Educational qualifications :
(Enclose certificates)
- (7) Details of professional :
experience in chronological
order (Enclose certificates)



Name of the Organization	Period of service	Designation	Area of responsibility

- (8) Membership, if any, of professional bodies :
- (9) Any other relevant information :

Signature of the person to be authorized
under the Institution

Signature of Head of the Institution or of the
person authorized to sign on his behalf along
with seal

Designation -

Form XXVII

(See rule 61(3))

Certificate of Recognition to an institution as Occupational Safety and Health Auditor

I,....., Chief Inspector-cum-Facilitator, Goa State, in exercise of the powers conferred on me under sub-rule (3) of rule 61 of the Goa Occupational Safety, Health and Working Conditions (Factories) Rules, 2026, hereby recognize M/s (name of the institution) to be an Occupational Safety and Health Auditor for the purpose of providing occupational safety and health audit and certification services in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, located in the State of Goa by engaging the person(s) as specified overleaf.

This certificate is valid from to

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

- (i) Occupational safety and health audit and certification shall be conducted in accordance with the provisions the Code and the rules made thereunder and shall be carried out under the direct supervision of the person so authorized by the institution.
- (ii) Occupational Safety and Health Auditor shall be bound by the principles of transparency, impartiality and avoidance of conflict of interest.
- (iii) The certificate of recognition issued in favour of an institution shall stand cancelled if the person authorized leaves by the institution.
- (v) Statement of Occupational Safety and Health Audit and certification done shall be submitted to the Chief Inspector-cum-Facilitator on quarterly basis in the format as may be prescribed.
- (v)
- (vi) _____

Station :

Date:

Signature of the Chief Inspector-cum-Facilitator

(Reverse of Form XXVII)

Details of person(s) authorized under the Occupational Safety and Health Auditor

Details of person(s) authorized under the Competent Person

Name	Photo
	PHOTO OFFICIAL SEAL

Note: Add row for each person in case of more than one person.

Form XXVIII

[See Rule 67, Schedules to rule 85, rule 94]

Health Register

1. Serial number in the register of adult workers
2. Name of worker
3. Sex:
4. Date of Birth:

1	Department/work	2	Name of hazardous process	3	Dangerous process/operation	4	Nature of job of occupation	5	Raw materials, products or by-products likely to be exposed to	6	Date of posting	7	Date of leaving/transfer to other work	8	Reasons for discharge/leaving or transfer	Medical examination and the result thereof				If declared unfit for work				Signature with the date of the Factory Medical Officer/the Medical Officer	17
																Date	Signs and symptoms observed during examination	Nature of tests and results thereof	Result fit/unfit	Period of temp withdrawal from that work	Reasons for such withdrawal	Date of declaring him unfit for that work	Date of issuing fitness certificate		

Note:- (1) Separate page should be maintained for individual worker (2) Fresh entry should be made for each examination.

Form XXIX

(See rule 67)

Certificate of fitness for adolescent person

1. Serial No. :
2. Name of person examined :
3. Father's name :
4. Sex :
5. Residence :
6. Date of birth, if available
7. Referred by -
 - (a) Name and address of the factory :
 - (b) Name of the Manager :
8. Manufacturing process in which adolescent person is proposed to be employed :

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

Physical disability, if any:-

Whether the examination is required before:
expiry of 12 months. Reasons for refusal/
revocation of certificate.

Signature or left hand thumb impression of the person examined

Signature of Medical Officer
Name (in block letters)

Note: (1) To be issued by the Medical Officer and a copy to be retained for 2 years.

(2) As per rule 67, the Medical Officer issuing this certificate should have personal knowledge of the place where the adolescent person proposes to work and of the manufacturing process in which he will be employed.

(3) As per rule 67, this certificate is valid for one year from the date of issue.

(4) In case of physical disability, the exact details should be clearly stated.

(5) *Please delete what is not applicable.

(6) Adolescent person means a person as defined under clause (a) of sub-section (1) of section 2 of the Code.

Form XXX

(See rule 70)

APPLICATION FOR APPROVAL OF PLANS TO CONSTRUCT, EXTEND OR TAKE INTO USE ANY BUILDING AS A FACTORY OR REVISION IN PLANT AND MACHINERY LAYOUT OR ADDITION / DELETION OF PREMISES ON WHICH THE FACTORY IS SITUATED

(1) Application for – (Tick one or more, as applicable)

- (a) Constructing a new building : _____
- (b) Extending the existing building : _____
- (c) Taking into use any building as a factory : _____
- (d) Revision in Plant and Machinery Layout : _____
- Addition / deletion of premises on which : _____
factory is situated

(e)

(2) Occupier's details in block letters

(a) Full Name

(b) Residential Address

Phone no. _____

Mobile no. _____

e-mail id. _____

(3) Full name and postal address of factory including phone No.

Name : M/s. _____

Address : _____

Phone no. _____

e-mail id. _____

(4) (a) (i) Registration No. : _____

(ii) Whether factory possesses license : Yes / No

If yes,

Licence No. : GOA/ _____

Valid upto : _____

- (b) Has the construction work been started? : Yes / No
If yes, date of start : _____
- (c) Has the construction work been completed? : Yes / No
If yes, date of completion. : _____
- (d) Has the manufacturing process commenced? : Yes / No
If yes, date of commencement : _____
- (e) How many workers were employed on the first day of the commencement of the manufacturing process? : _____
- (g) From which date you are employing more than 19 workers with the aid of power or more than 39 workers without the aid of power? : _____
- (h) What is / will be the maximum number of workers employed per day? (Maximum, counting all shifts in the entire factory) : Male - _____
Female - _____
Transgender - _____
- (i) What is / will be the maximum number of workers working in the entire factory at any one time? : Male - _____
Female - _____
Transgender - _____
- (j) Does it fall in THE FIRST SCHEDULE under section 2 (za) of the Code : Yes / No
If yes, state the category as per THE FIRST SCHEDULE of the Code : _____
- (k) Dangerous Manufacturing Process or Operation carried on or to be carried on as per rule 85 along with no. of workers proposed to be / engaged in each dangerous manufacturing process or operation : Sr No. Schedule No. as No. of workers per Rule 85
1.
2.
3.

(5) Other Particulars:

- (i) Permission / Approval / NOC from Local Authority i.e. Municipal Corporation or Council / Panchayat / Goa Industrial Development Corporation along with photo copy of approved plans.(in case of : _____

- construction, extension or taking into use
any building as a factory)
- (ii) Approval from Goa State Pollution Control
Board as under: -
- (a) For new factories, Consent to : _____
Establish
- (b) For existing factories, Consent to : _____
Operate and Hazardous Waste
Authorization
- (iii) Approval / License from Petroleum and : _____
Explosives Safety Organization in case of
factories using / manufacturing / storing
explosives, flammable or non-flammable or
toxic or non-toxic compressed gas,
petroleum product or any other
inflammable substance.
- (iv) List of directors / partners in case of : _____
company / firm with their permanent
address and telephone numbers.
- (v) Board Resolution appointing one of the : _____
Directors / Resolution appointing one of
the Partners as Occupier of the factory as
per Annexure – I hereto.
- (vi) Ownership documents of the premises i.e. : _____
Sale Deed / Lease Deed / Sub-Lease Deed /
Leave & License Agreement.
- (vii) List of raw material(s) used in the : _____
manufacturing process.
- (viii) List of finished products manufactured in : _____
the factory.
- (ix) Schematic flow chart of the manufacturing : _____
process.
- (x) Brief description of the manufacturing : _____
process.
- (xi) List of chemicals/oils/ solvents/gases that : _____
are stored, produced or discharged to be
given as per Annexure – II hereto.
- (xii) Statistical data to be submitted as per : _____
Annexure – III hereto (to be obtained from
Architect/Engineer)

- (xiii) Stability Certificate of the building/ shed / structure / work of engineering construction in case of completion of construction work. (to be obtained from Competent Person as defined under Rule 73) : _____
- (xiv) (i) List of machineries /equipment's with their power rating in HP : _____
- (ii) List of other power / steam generating equipment's along with their details. : _____
- (xv) Hazard Identification and Risk Analysis Report in case of Major Accident Hazard installation / Chemical Unit.(For new factories and in case of existing factories if there is any change) : _____
- (xvi) Plans in duplicate in blue print / CAD print signed by the occupier in original submitted in hard format. (Refer Annexure IV hereto for guidelines of plan preparation) : Yes / No

Rubber stamp and signature of the Occupier: _____

Name of Occupier: _____

(in block letters)

Date: -

Notes: (1) Applicant shall be the occupier of the factory, as specified under the following circumstances: -

- (a) The proprietor of proprietary concern, or
- (b) Anyone of the individual partners of the firm by consent from all other partners.
- (c) One of the directors of the company nominated by Board of directors by resolution except any independent director within the meaning of sub-section (6) of section 149 of the Companies Act, 2013 (18 of 2013)
- (d) The person appointed by notification to manage the affairs of the factory, owned or controlled by the Central Government or State Government or a local authority.

(2) The application in this Form is not valid after thirty days from the date of submission, if plans are not approved.

(3) Application made by a person other than the occupier of a factory will not be entertained.

ANNEXURE - I
RESOLUTION

EXTRACT OF THE RESOLUTION PASSED IN THE BOARD OF DIRECTORS

MEETING / PARTNERS MEETING HELD ONAT.....

Resolved that Shri / Smt / Kum.
Director / Partner of the Company / firm is nominated as ‘Occupier’ for the Company’s factory situated at
..... for the purpose of
the Occupational Safety, Health and Working Conditions Code, 2020 (Central Act No.37 of 2020) and the
Rules framed thereunder.

It is certified that Shri / Smt / Kum.
is not an independent director of the Company within the meaning of sub-section (6) of section 149 of the
Companies Act, 2013 (18 of 2013).

Certified by Company Secretary or Chairman or all the Directors of the Company / all partners of the firm.

ANNEXURE - II

DETAILS OF OIL/SOLVENTS/PETROLEUM PRODUCTS/ CHEMICALS/GASES THOSE ARE STORED, PRODUCED OR

DISCHARGED

Sr. No.	Name of the raw material/chemical/solvent etc.	Physical state at ambient temp.	Maximum quantity stored at a time in factory	Type/Mode of storage	Flash point in °C	Flammability	Toxicity	Exposure	Method of handling during manufacturing process
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Raw materials								
	Intermediate products								
	Finished products								

Name and Signature of the Occupier

Date: -

ANNEXURE - III

STATISTICAL DATA

(1) Sr. No. of work room, office room, etc. marked on plan	(2) Name of room in factory	(3) Length, breadth and height (all in metres of each room)	(4) Total volume of each room in cubic metres	(5) Total volume occupied by machinery of each room in cubic metres	(6) Floor area occupied by machinery in square metres	(7) Breathing space in cubic metres	(8) No. & size of door	(9) No. & sizes of window opening in the outer wall (at working level)	(10) No. & size of ventilation & other roof opening (above working level)	(11) Total area of windows and doors in the outer wall in square metres (8+9)	(12) Total area of opening above working level in square metres	(13) Maximum No. of persons who may be employed in the room at a time	(14) Other remarks if any with respect of special arrangements made for ventilation
--	--------------------------------	---	---	--	---	--	---------------------------	--	---	--	---	---	--

NOTE:- Breathing space of at least 14.2 cubic metres shall be provided for every worker employed in that room and no account shall be taken of any space which is more than 4.2 mts above the level of the floor of the room, for calculating the breathing space.

Signature of Architect/Engineer preparing the plans.

ANNEXURE - IV

GUIDELINES TO OCCUPIER/ENGINEER/ARCHITECT FOR PREPARATION AND SUBMISSIONS OF PLANS

- (1) Shall be submitted in blue print drawing or CAD print.
- (2) Shall be in duplicate.
- (3) Shall be signed by Occupier and the Engineer/Architect indicating his registration number with rubber stamp.
- (4) Shall be drawn to scale, suitably dimensioned:-
- (5) The site and block plan must be drawn to a scale of 1 cm = 5 mts. with North direction shown.
- (6) The scale of building plans, elevations, equipment, layout, cross sections, must be drawn to a scale of 1 cm = 1 mt.
- (7) All dimensions shall be in metric systems.
- (8) Shall be prepared by a person having requisite qualifications such as an Architect registered with the Institution of Architects or Registered Engineer. Name and address of the Engineer/Architect to be given.
- (9) Site plan shall show immediate surroundings including adjacent buildings and other structures, roads, drains, etc., factory boundary shall be shown in green including all its premises and precincts therein.
- (10) Layout plans shall show all the departments, sections, aisles, stairs, floor openings, pits, reservoir sumps, tanks, boiler house, coal yard, generator room, effluent plant, work benches, workshop, passageways through the working room, etc. giving access to the means of escape in the case of fire and emergency.
- (11) Layout plans shall show placement of machinery and equipment, including lifting machines, pressure plants, furnace, etc., indicating the distance of at least 1 mt. between the machines, machines and adjacent walls, pillars, etc.
- (12) Layout plans shall show location of all the statutory facilities like latrines, urinals and washing facilities, cloak room, canteen, rest/shelter room, lunch room, first aid room, drinking water centre's, etc., clearly marked and detailed plans with respect to each of these facilities.
- (13) Layout plans shall show all figures, dimensions, specifications, distances and necessary schedules of doors and windows, machineries and equipment's on plans at proper places.
- (14) Layout plans shall show proposed changes of additions and alterations in the following distinctive colours:-
 - (i) Proposed extension in pink colour.
 - (ii) Proposed demolition in yellow colour.

Form XXXI

(See rules 74, 76, 80 and 82)

Application for Grant of License and / or Notice of Occupation or Amendment of Licence or Transfer of License

1. Application for (*Tick one or more, as applicable*)
 - (a) Grant of Licence and / or Notice of Occupation :
 - (b) Amendment of license for
 - (i) Change in name of the factory due to acquisition :
or merger or any other reasons to be specified

(ii)	Addition / Deletion of the Manufacturing process / Product	:	.....
(iii)	Increase / Decrease in maximum number of workers on any day	:	.....
(iv)	Increase / Decrease in installed power	:	.....
(v)	Addition / Deletion of the premises	:	.....
(c)	Transfer of license by virtue of change of Occupier	:	.....
2	Last plan approval No. and date granted by Chief Inspector	:	..... .....
(a)	Name and complete residential address of the occupier, that is -	:	..... .....
(a)	the proprietor; OR	:	.....
(b)	one of the partners of the firm appointed by Resolution; OR	:	.....
(c)	a director of the company appointed by Board Resolution; OR	:	.....
(d)	the person appointed to manage the affairs of the factory owned or controlled by Central Government or State Government or local authority; OR	:	.....
(e)	any other (specify)	:	.....
(b)	(i) Full name and postal address of the factory with Pin Code	:	..... ..... ..... .....
(ii)	Telephone No.	:	.....
(iii)	e-mail id	:	.....
(c)	(i) Registration No.	:	.....
(ii)	Whether factory possess license	:	Yes/No
(iii)	If yes, License No.	:	GOA/.....
(iv)	If no, from which date you are employing more than 19 workers with the aid of power or more than 39 workers without the aid of power?	:	.....
3.	Full name and address of the owner of the premises or building (including the precincts thereof) referred to in section 80.	:	..... ..... .....
4.	Full name and residential address of the person who shall be the manager of the factory for the purposes of the Act	:	..... ..... .....
5.	(a) In case of application for grant of license and / or Notice of Occupation, documents as per Annexure I annexed to this form enclosed	:	Yes / No
(b)	In case of application for amendment of license, applicable documents as per Annexure II annexed to this form enclosed	:	Yes / No
(c)	In case of application for transfer of license by virtue of change of occupier, applicable documents as per	:	Yes / No

Annexure III annexed to this form enclosed

6.	Number of workers employed in the factory -	Employed in the last 12 months	Proposed to be employed in next 12 months
(a)	Maximum number	:	.....
(b)	Number ordinarily employed*	:	.....
7	Total amount of installed power in HP -	:	.....
Signature of the Occupier :			
Full Name (in block letters) :			
Telephone No.:.....		Mobile No.:.....	e-mail id:.....
Signature of the Manager :			
Full Name (in block letters) :			
Telephone No.:.....		Mobile No.:.....	e-mail id:.....
Dated:.....			

NOTE:

- (1) This form shall be completed in block letters.
- (2) If power is not used at the time of filling up this Form but introduced later, the fact should be communicated to the Chief Inspector-cum-Facilitator.
- (3) The term 'ordinarily employed' would mean the total number of workers working in all the shifts which should be over 50% of the working days in the factory.

Annexure – I

For Grant of License and / or Notice of Occupation

- 1) Letter of approval of plans granted by Chief Inspector-cum-Facilitator
- 2) Evidence (objective / documentary) in respect of compliance to the conditions laid, if any, at the time of approval of plans.

Annexure - II

A. For change in name of factory

- 1) Court Order for acquisition / merger (in case of company)
- 2) Certificate of Incorporation issued by Registrar of Companies for change in name (in case of company)
- 3) Purchase / Sale Agreement (other than in case of acquisition / merger)
- 4) List of current Directors / Partners issued by Registrar of Companies / Registrar of Firms
- 5) Board Resolution / Resolution appointing applicant Director / Partner as the Occupier duly signed by all Directors / Partners or certified by Company Secretary (in case of Company) along with reg. no. & seal.
- 6) NOC issued by Local Authority / GIDC for change in name of the factory
- 7) Declaration from the applicant Director / Partner / Proprietor stating that there is no change in the previously approved building / shed / structure, plant & machinery layout and the process / product.

B. Addition / deletion of manufacturing process / product

- 1) Letter of approval of plans granted by Chief Inspector-cum-Facilitator for revision in plant & machinery layout for addition / deletion of the process / product.
- 2) List of products / processes carried out before addition / deletion
- 3) List of products / processes carried out after addition / deletion
- 4) Product / process wise name and quantities of raw materials to be used, intermediate products and principal finished products to be produced after addition or deletion
- 5) NOC issued by GSPCB (in case of addition of the process / product)

C. Increase / Decrease in maximum number of workers on any day

- 1) Breakup of Safety, Health and Welfare facilities as per prescribed format only in case for increase in maximum no. of workers.

D. Increase / Decrease in installed power

- 1) Letter of approval of plans granted by Chief Inspector-cum-Facilitator for revision in plant & machinery layout.

E. Addition / Deletion of the premises

- 1) Letter of approval of plans granted by Chief Inspector-cum-Facilitator for addition / deletion of premises.
- 2) Documents with respect to ownership of premises only in case of addition of premises.

Annexure – III

Transfer of license by virtue of change of Occupier

- 1) List of current Directors / Partners issued by Registrar of Companies / Registrar of Firms
- 2) Board Resolution / Resolution appointing applicant Director / Partner as the Occupier duly signed by all Directors / Partners or certified by Company Secretary (in case of Company) along with reg. no. & seal.
- 3) Letter from earlier Occupier regarding transfer of license in the name of new Occupier / DIR-12 issued by Registrar of Companies indicating cessation of earlier Occupier as Director (in case of company)
- 4) Order of Appointment issued by concerned Ministry / Department in case of Central / State Government owned / controlled factory.

Succession Deed in case of death of a proprietor along with NOC's from remaining legal heirs in case of multiple legal heirs.

Form XXXII

(See rule 75, 76, 77 & 80)

LICENCE TO WORK A FACTORY

Name of industry:

Registration No:

Licence No.:

NIC Code No.:

Licence is hereby granted to _____, for the premises known as _____, situated at _____ plans of which are approved vide No. _____ dated _____, for use as a factory within the limits stated hereinafter, subject to the provisions of the Occupational Safety, Health and

Working Conditions Code, 2020 and the Rules framed thereunder, for the following manufacturing processes / products :

(1).....

(2).....

(Name)

This ____ Day of _____, 20 Chief Inspector of Factories and Boilers

Details of license

	Valid for							
	Calendar year	Maximum number of workers on any one day	Maximum installed power in HP	Fees paid Rs.	Excess Rs.	Additional paid for late payment	Date of payment	Signature of the issuing authority
Previous arrears, if any								
Granted under rule 75 / Amended under rule 76 / Renewed under rule 77 / Transferred under rule 80 (strike out whichever is not applicable)								

Form XXXIII
(See rule 77)

Application for Renewal of Licence

Registration No.:.....

Licence No.: GOA /.....

NIC code No. (as given in the license)

:

1. Full name of the factory

:
.....
.....

2. Permanent Account Number (PAN)

:

3. Full postal address of the factory

:
.....
.....
.....

4. Maximum number of workers employed on any day in :
the last 12 months
5. Number of workers ordinarily employed (means the :
total number of workers working in all the shifts which
should be over 50% of the working days in the
factory)
6. Maximum number of workers to be employed on any :
day during the year
7. Installed power in H.P :
8. Calendar year for which renewal of licence is applied :
for

UNDERTAKING

I/We, the undersigned, being the Occupier and the Manager of the factory named at Sr. No. 1 and situated as mentioned at Sr. No.3 above, duly appointed in accordance with the provisions of the Occupational Safety, Health and Working Conditions Code, 2020 (Central Act No. 37 of 2020) and the rules made there under, hereby declare that there is no increase in the maximum number of workers employed on any day, there is no increase in installed power and there is no change / addition / deletion in the manufacturing process or premises of the said factory as specified in the license, including the names and quantity of the raw material used, intermediate products, finished products, bye products, as declared earlier and that I / we hereby undertake to obtain approval of plans in accordance with rule 70 and / or to amend the factory license in accordance with rule 76, if there is any increase in maximum number of workers employed on any day and / or increase in installed power and / or change / addition / deletion in the manufacturing process or premise as declared.

Signature of the Occupier :
Full Name (in block letters) :
Permanent residential address :
.....
.....
.....

Telephone No:..... Mobile No:.....

E-mail id:.....

Signature of the Manager :
Full Name (in block letters) :
Permanent residential address :
.....
.....
.....

Telephone No.:..... Mobile No.:.....

E-mail id:.....

Dated:.....

NOTE:

(1) This form should be completed in block letters.”

Form XXXIV

(See rule 83)

Notice of change of Manager

- | | |
|---|-----------------------------|
| Name of the factory: | Registration No.: |
| Postal address of the factory
(town/village, pin code No.) | Licence No, if applicable.: |
| | NIC code No.: |
1. Name of the outgoing manager:
 2. Date of relinquishing charge:
 3. (a) Name of the new manager:
(b) Residential address:
(c) Telephone number:
(d) Mobile number:
 - (e) Date of birth:
 - (f) E-mail ID:
 4. Date of appointment of the new manager:
 5. Date on which charge is taken by the new manager:
 6. Signature of the new manager:
- Signature of the Occupier
Name (in block letters)
Address and telephone No.

Form XXXV

[See various Schedules annexed to rule 85]

Report of Examination and Test for Extraction or Suppression System of Dust / Fume/ Gas / Vapour / Smoke, etc.

- | | | | | |
|---|---|---|--------------|--------------|
| 1 | Name and Address of the factory | : | | |
| 2 | Description and Distinctive number of the system | : | | |
| 3 | Name and address of the manufacturer | : | | |
| 4 | Nature of the process / operation in which it is used | : | | |
| 5 | Date on which it was first taken into use | : | | |
| 6 | Contaminant captured and its properties e.g. flammable, corrosive, toxic, combustible, etc. | : | | |
| 7 | Inlet / Enclosure / Hood - | : | | |
| | (a) Number of Inlet/ Enclosure / Hood | : | | |
| | (b) Size and Sr. No. of each Inlet / Enclosure / Hood | : | | |
| | (i) | : | | |
| | (ii),etc (Add nos. if required) | : | | |
| | (c) Distance of inlet / enclosure / hood from source of Contaminant | : | | |
| | (d) Face velocity at each Inlet/Enclosure/Hood | : | Design value | Actual value |
| | (i) | : | | |
| | (ii),etc (Add nos. if required) | : | | |
| | (e) Air volume at each Inlet/Enclosure/Hood in m ³ /hr | : | | |
| | (i) | : | | |
| | (ii),etc (Add nos. if required) | : | | |

- 8 Ducting - :
 - (a) Material of the Duct and its condition observed with respect to corrosion / cracks / punctures :
 - (b) Condition of Duct at joints/flanges :
 - (c) Transport velocity in duct (at points along duct to be specified) :
 - (i) :
 - (ii), etc (Add nos. if required) :
- 9 Air cleaning device - :
 - (a) Type used :
 - (b) Velocity at inlet :
 - (c) Static pressure at inlet :
 - (d) Velocity at outlet :
 - (e) Static pressure at outlet :
- 10 Fan - :
 - (a) Type used :
 - (b) Volume handled :
 - (c) Static pressure :
 - (d) Pressure drop at outlet of fan :
- 11 Fan motor - :
 - (a) Type :
 - (b) Whether flameproof in case used for handling flammable substances / mixtures :
 - (c) Speed in rpm and power in kilowatts :
- 12 Whether the equipment / system is earthed and bonded adequately to prevent static charge build up :
- 13 Particular of defects, if any, noticed during test and repairs required (if any) :
- 14 Any other particulars which the person making the examination thinks it necessary for effective working :

I certify that on (date)_____ the above 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 system including its components and fittings and that the above is a true report of my examination.

Signature and name of Competent Person:

Number and date of the competency certificate:

If employed by an Institution,
name and address of the Institution:

Form XXXVI

(See Schedules annexed to rule 85 and rule 94)

Certificate of fitness of employment in hazardous process / dangerous operations

1. Serial number in the register of adult workers :
2. Name of person examined:
3. Father/s/Husband's name:
4. Sex :
5. Residence :
6. Date of birth, if available :
7. Name & address of the factory :
8. The worker is employed / proposed to be employed in -
 - (a) Hazardous process :
 - (b) Dangerous operations :

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

In my opinion he/she is fit for employment in the said hazardous process/operation.

In my opinion he/she is unfit for employment in the said hazardous process/operation for the reasons _____ . He/she is referred for further examination to the Medical Officer / Medical Board.

The serial number of the previous certificate is _____

Signature or left hand thumb
impression of person examined:

Signature of the Authority / Agency with seal

Date:

I certify that I have examined the person mentioned above on (date of examination)	I extend this certificate until (if certificate is not extended, the period for which the worker is considered unfit for the work to be mentioned)	Signs and symptoms observed during medical examination	Signature of the Authority / Agency with date

Note:- (1) If declared unfit, reference should be made immediately to the Medical Officer / Medical Board.

(2) Medical Officer / Medical Board should communicate his / its findings to the occupier within 30 days of the receipt of this reference.

Form XXXVII

(See rule 97)

Application for grant of Certificate of Recognition as Occupational Health Laboratory to an Institution

- (1) Name and full address of the Institution :
- (2) E-mail ID :
- (3) Contact No. :
- (4) Institution's status i.e. whether firm, association, body, company, society or a trust) (Enclose certificate of incorporation / registration issued by concerned authority) :
- (5) Permanent Account Number (PAN) :
- (6) Particulars of persons employed and possessing qualification as set out in rule 97 :
- (7) Details of facilities and equipment's available at disposal as set in rule 97 and arrangement made for their maintenance and periodic calibration. :

DECLARATION:

I, _____ hereby, on behalf of _____ certify the details furnished above are correct to the best of my knowledge and declare that the institution has not been blacklisted or debarred by any Government Department / Agency / PSU. Further, I undertake to –

- (iii) notify the Chief Inspector about any change in the details of persons employed (either addition or deletion).
- (iv) maintain the facilities in good working order, calibrated periodically as per manufacturers instruction or as per National Standards;
- (v) to fulfill and abide by all the conditions stipulated in the certificate of recognition and instructions issued by the Chief Inspector-cum-Facilitator from time to time.

Place:

Date:

Signature of Head of the Institution
or of the person authorized to sign
on behalf of Institution along with seal

Designation -

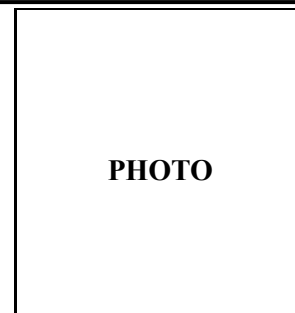
List of documents to be submitted along with application:

6. Certificate of Incorporation / Registration
7. Permanent Account Number (PAN)
8. Particulars of person's employed in the prescribed Annexure along with documents in support of possessing qualifications.
9. Documentary / objective evidence with respect to the equipment's available at the disposal of the applicant for carrying out tests and examination.
10. Valid Trade License / permission issued by the Local Authority
11. Valid Consent to Operate and Authorization issued by the Goa State Pollution Control Board
12. Valid Certificate of Registration as a clinical establishment issued by the District Collector
13. Treasury receipt towards payment of fees

ANNEXURE

(Use separate Annexure for every individual person)

- (1) Name :
- (2) Full Residential Address :
- (3) Date of Birth :
- (4) E-mail ID :
- (5) Contact No. :
- (6) Educational qualifications :
(Enclose certificates)
- (7) Details of professional :
experience, if any, in
chronological order (Enclose
certificates)



Name of the Organization	Period of service	Designation	Area of responsibility

- (8) Membership, if any, of professional bodies :
- (9) Any other relevant information :

Signature of the person to be authorized
under the Institution

Signature of Head of the Institution or of the
person authorized to sign on his behalf along
with seal

Designation -

Form XXXVIII

(See rule 97)

Certificate of Recognition as Occupational Health Laboratory to an Institution

I,....., Chief Inspector-cum-Facilitator, Goa State, in exercise of the powers conferred on me under rule 97 of the Goa Occupational Safety, Health and Working Conditions (Factories) Rules, 2026, hereby recognize M/s (name of the institution) to be an Occupational Health Laboratory for the purpose of carrying out tests, examinations and certification of the employees engaged in a factory as defined under sub-clause (iii) of clause (v) of sub-section (1) of section 2 of the Code or notified under section 81 of the Code, located in the State of Goa by engaging the person(s) and for the purpose(s) as specified overleaf.

This certificate is valid from to

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

- The tests, examination and certification shall be carried out in accordance with the provisions the Code and the rules made thereunder and shall be carried out under the direct supervision of the person so authorized by the institution.
- Occupational Health Laboratory shall be bound by the principles of transparency, impartiality and avoidance of conflict of interest.

- (iii) The certificate of recognition issued in favour of a person shall stand cancelled if the person authorized leaves by the institution.
- (iv) If an employee is found to be suffering from any disease specified in The Third Schedule of the Occupational Safety, Health and Working Conditions Code, 2020, a notice stating name and full particulars of the employee and the disease shall be sent without delay to the Chief Inspector-cum-Facilitator.
- (v) Statement of tests, examinations and certifications done shall be submitted to the Chief Inspector-cum-Facilitator on quarterly basis in the proforma given in Annexure A and if an employee is found unfit based on the findings of the medical examination, the details shall be submitted in Annexure B.
- (v)
- (vii) _____

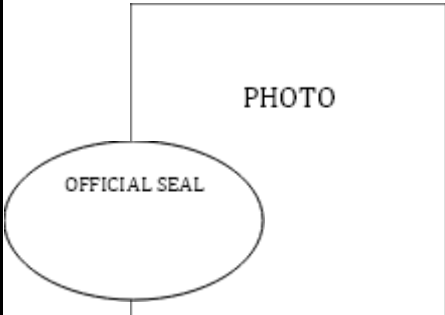
Station:

Date:

Signature of the Chief Inspector-cum-Facilitator

(Reverse of Form XXXVIII)

Details of person(s) authorized under the Occupational Health Laboratory

Name	Photo
	 PHOTO OFFICIAL SEAL

Note: Add row for each person in case of more than one person.

Annexure A

STATEMENT OF MEDICAL EXAMINATIONS CARRIED OUT Quarter Ending : <u>Month & Year</u>			
Sr No.	Name of the establishment	No. of employees medically examined	No. of employees found unfit

Annexure B

STATEMENT OF EMPLOYEE(S) FOUND UNFIT / ABNORMALITIES DETECTED Name & Address of the establishment:
--

Sr No.	Name of employee	Date of examination	Type of test(s) carried out (copy of the reports to be enclosed)	Reasons for being unfit / Abnormalities detected	Recommendations given

Form XXXIX

[See rule 111(8)(b)]

Register of Examination of Gas-Holders

- Particulars of manufacture –
- (a) Maker's name:
 - (b) Date of manufacture:
 - (c) Number of lifts:
 - (d) Maximum capacity in cubic metres:
 - (e) Pressure within the gas holder when full of gas:
 - (f) Name of the gas to be stored:

Distinguishing number of letter of gas holder	Particulars of examination carried out under sub-rules 111 (4) and (5)		Particulars of repairs			Remarks
	Method of examination used	Date of examination	Name and Designation of the competent person	Nature of repairs	Date of repairs and painting	Bye whom repairs are carried out
1.	2.	3.	4.	5.	6.	7.
						8.

Signature of occupier or manager
Name (in Block letters)

[See rule 111 (8) (c)]

Report of Examination of Water Sealed Gas Holder

Registration No.:

Licence No.:

NIC code No.:

(As given in the licence)

1.	Occupier of premises		
2.	Address:		
3.	Name, description, distinguished number or letter and type of gas holder:		
4.	Name and address of the manufacturer:		
5.	(a)	Number of lifts	
	(b)	Maximum capacity in cubic metres	
	(c)	Pressure within the gas holder when full of gas:	
6.	Name of the gas to be stored in the holder:		
7.	Whether the examination was internal or external:		
8.	Parts of the gas holders examined by electronic or other accurate devices or by cutting sample discs and results thereof:		
9.	Particulars as to the condition of -		
	(a)	crown	
	(b)	side sheeting, including grips and cups	
	(c)	guiding mechanism (roller carriages, rollers, pins, guide rails, or ropes)	
	(d)	tank and	
	(e)	other structure, if any, (columns, framings and bracing)	
10.	Particulars as to the position of the lift at the time of examination:		
11.	Particulars as to whether the tank and lifts were found sufficiently level for safe working and if not, the steps taken to remedy the defect.		
12.	Date of examination and by whom it was carried out.		
13.	(a)	Are all fittings and appliances properly maintained and in good condition?	
	(b)	Repairs, if any, required and period within which they should be executed?	
	(c)	Any other condition which the person making the examination thinks it necessary for securing safe working.	
14.	Other observations:		

I certify that on (date) the gas holder described above was thoroughly examined and such of the tests as were necessary made on the same day and that the above is a true report of my examination.

Signature and name
of competent person
Number and date of the
competency certificate

Date:

Form XXXXI

[See Rule 117]

Record of eye examination for drivers and signaler of cranes, locomotives, etc.

Serial Number:

Name of the worker:

His serial number in the register of adult worker:

Sex:

Date of Birth:

Department/ works	Occupation		Examination of eye sight				Remarks	Signature of ophthalm ologist
	Nature	Date of posting	Date	Result				
				L.E.	R.E.	Colour Vision		
1.	2.	3.	4.	5.	6.	7.	8.	9.

Note: (1) A separate page is to be maintained in respect of each worker.

(2) Periodicity for eye examination is once in a year upto the age of 45 years and half yearly thereafter

Form XXXXII

(See rule138)

Application for Grant / Renewal / Amendment of Common License

A) ESTABLISHMENT PROFILE	
I. Particulars of Establishment for which license required:	
1.Nameof Establishment:	
2. Full Address of Establishment:	
3. E- mail Id:	
4.TelephoneNumber/Mobile Number:	
5. Activity as per National Industrial Classification: (Select all applicable activities given)	
6. Details of selected NIC Code:	
7. Nature of work carried on in main establishment:	
II. Details of Employer:	
1. Full Name of Employer: Relationship with establishment.	

2. Full address of Employer:							
3. Email Id of employer:							
4. Mobile No. of employer:							
B) Details of Factory for which Common Licence required.							
1.	License number, if granted						
2.	Reference number and date of latest approval of the plans by the Chief Inspector-cum-Facilitator.						
3.	i. A flow chart of the manufacturing process supplemented by a brief description of the process in its various stages (attach separately, if required)						
	ii. list of the raw materials used, intermediate products, including emission of toxic gases, their quantities, methods of storage and handling, loading and transport etc.						
	iii. finished products by-products, their quantities, methods of storage and handling, loading and transport.						
	iv. details of the arrangements for the disposal of trade waste and effluents,						
	v. likely hazards and the method to control or eliminate them.						
4.	The period for which license or renewal of license is applied for (not exceeding ten years)						
5.	Maximum number of workers to be employed on any one day during the year		Male	Female	Other	Total	
6.	Installed power in Horse Power						
7.	Full name of Manager						
	Residential Address						
	Date of Birth						
	Nationality						
	Mobile No.						
	E-mail						
C) Details of Establishment Contractor							
1)	Name and Address of the Principal Employer, where Contract labourers are being proposed to engage						
2)	Name and designation of the representative of Principal Employer where the Contract Labourers are being proposed to engaged						
3)	Licenses number if any granted						

4) Nature of work in which contract labourers are being proposed to engage-				
5) Activity as per National industrial classification-				
6) Date of Commencement				
7) Date of Completion				
8) Number of contract labourers being Proposed to engage on any one day during financial year	MALE	FEMALE	OTHER	TOTAL
9) Attach undertaking of Contractor for not deploying Contractor labourers in core activities of manufacturing				
10) Amount paid as Security Deposit	Rs.			
11) Amount paid as fees for license	Rs.			
12) Late fees paid, if any	Rs.			
13) Whether License was cancelled of applicant in Past? Give details and present status of case -				
14) Present status of Cancellation				
15) Any court case pending with reference to Cancellation? Give details and present status of case -				
16) Whether Registration of principal employer was abolished in past? Or any abolition proposal is pending with Government? If yes give details of the present status or Action taken if any_				
17) Attach Form of Undertaking				
D) Details of Establishment obtaining License for Beedi and Cigar industrial Premises				
1) Full postal address to which Communication relating to the industrial premises should be sent:				
2) License number granted if any:				
3) Reference number and date of latest approved plan of industrial premises of Beedi and cigar manufacturing				
4) Maximum number of employees proposed to be employed on any one day during the financial year commencing on				
5) Whether the employer is a trade mark holder registered under the Trade and merchandise Marks Act, 1958? Please attach details:				
6) Value of beedies or cigars or both manufactured at the industrial premises during the preceding financial year ending on				
7) Applicant's previous experience of the				

Beedi and cigar Industry?	
8) Whether the proposed site of the industrial premises amounts to the alteration of the site, of any existing industrial premises and if so the reasons for such alterations:	
9) Whether any industrial premises was closed by the applicant during the last twelve months? If yes brief reasons:	
10) Source of obtaining tobacco:	
11) Whether the beedi or cigar or both manufactured by the applicant, will be sold and marked by himself for through a any other registered user of trade mark or any other person Please specify:	
12) Attach actual plan of the premises:	
13) Amount of fees paid	Rs.
D) Details of Amendment sought	

E-sign/digital sign of the Employer

Date of application

Form XXXXIII
(See rule138)

COMMON LICENSE

Licence No. ----- Reg. No.-----Date of Reg. -----

Licence is hereby granted to _____, for the premises known as _____, situated at _____ plans of which are approved vide _____ for

use as an establishment within the limits stated hereinafter, subject to the provisions of the Occupational Safety, Health and Working Conditions Code, 2020 and the Rules thereunder, for the following manufacturing processes/ products: -

For Factory	Period of Issue	Valid for		Fees	Date of Payment	Signature of the issuing Authority
		Maximum number of workers on any one day	Installed Horse Power in case of factory			

For Contractor Workers						
For Bidi and Cigar Works						

Date: -----

By order and in the name of the Governor of Goa.

Anant S. Pangam, Chief Inspector of Factories and Boilers and ex officio Joint Secretary.

Panaji.