Rajasthan Factories Rules, 1951

RAJASTHAN
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Rule RAJASTHAN-FACTORIES-RULES-1951 of 1951

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Rajasthan Factories Rules, 1951Published Notification No. F. 15(4)Lab. /52, dated 24.7.1952. published in Rajasthan Gazette. Part IV-B. dated 30.5.1952{||-| AMENDMENT HISTORY6|}In exercise of the powers conferred by section 112 of the Factories Act, 1948 (LXIII of 1948), the Government of Rajasthan is pleased to make the following Rules, namely:

Chapter I
Preliminary

1. Short title, extent and commencement.

(1) These Rules may be cited as the Rajasthan Factories Rules, 1951.(2)These rules, extend to the whole of the State of Rajasthan (including the Abu, Ajmer and Sunel Area).(3)These Rules, except Rule 29 to 33, 53, 66, 68 to 80 and 100 shall come into force on 1st September, 1952, and Rules 29 to 33,53, 60, 68 to 80 and 100 shall come into force on such dates as are specified therein.

2. Definitions.

In these Rules unless there is anything repugnant in the subject or context:(a)'Act' means the Factories Act, 1948, and a "Section" means a section of the Act.(b)"Appendix" means an appendix appended to these Rules.(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 screen 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)"Degree" (of temperature) means degree on the Fahrenheit scale.(f)"District Magistrate" includes such other official as may be appointed by the State Government in that behalf."Form" means a form prescribed in these

rules.(g)"Fume" includes gas or vapour.(h)"Health Officer" means the Municipal Health Officer or District Health Officer or such other official as may be appointed by the State Government in that behalf.(i)"Hygrometer" means an accurate wet and dry bulb hygrometer conforming to the prescribed conditions as regards constructions and maintenance.(j)[x x x] [Omitted by No. 4 dated 8.1.1991 [25-6-92].](k)"Maintained" means maintained in an efficient state, in efficient working order and in good repair.(l)"Manager" means the person responsible to the occupier for the working of the factory for the purposes of the Act.

2A. [Competent Person.] [Added by No. 4, dated 8.1.1991 [25-6-1992].] (1) The Chief Inspector may recognise any person as a 'competent person' within such area and for such period as may be specified for the purposes of carrying out tests, examinations, inspections and certification for such buildings, dangerous machinery hoists and lifts, lifting machines and lifting tackles, pressure plant, confined space, ventilation system and such other process or plant and equipment as stipulated in the Act and the Rules made thereunder, located in a factory, if such person possess the qualifications, experience and other requirements as get out in the schedule annexed to this rule:

Provided that the Chief Inspector may relax the requirements of qualifications in respect of a 'competent person' if such a person is exceptionally experienced and knowledgeable, but not the requirements in respect of the facilities at his command:Provided further that where it is proposed to recognise a person employed under the Chief Inspector as a 'competent person', concurrence of the State Government shall be taken and such a person after being so recognised, shall not have powers of an 'Inspector':Provided further that the 'competent person' recognised under this provision shall be physically fit for the purpose of carrying out the tests, examination and inspection.(2)The Chief Inspector may recognise an institution of repute, having persons, possessing qualifications and experience as set out in the schedule annexed to sub-rule (1) for the purpose of carrying out tests, examinations, inspections and certification for buildings, dangerous machinery, hoists and lifts, lifting machines, and lifting tackles, pressure plant, confined space, ventilation system and such other process or plant and equipment as stipulated in the Act and the Rules made thereunder, as a 'competent person' within such area and for such period as may be specified.(3)The Chief Inspector on receipt of an application in the prescribed form from a person or an institution intending to be recognised as a 'competent person' for the purposes of this Act and the Rules made thereunder, shall register such application and within a period of sixty days of the date of receipt of application, either after having satisfied himself as regards competence and facilities available at the disposal of the applicant recognise the applicant as a 'competent person' and issue a certificate of competency in the prescribed form or reject the application specifying the reasons therefor.(4)The Chief Inspector 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 carried out a test, examination and inspection or has acted in the manner inconsistent with the intent or the

purpose of this Act or the Rules made thereunder or has omitted to act as required under the Act and the Rules made thereunder; or(II)For any other reason to be recorded in writing.Explanation: For the purpose of this Rule, an institution includes an organisation.(5)Any person aggrieved by an order of the Chief Inspector under sub-rule 3 and 4 may appeal within a period of 30 days of the date of the orders, after giving him an opportunity of hearing the State Government may dispose of the appeal.(6)The Chief Inspector may, for reasons to be recorded in writing, require re-certification of lifting machines, lifting tackles, pressure plant or ventilation system, as the case may be which has been certified by a competent person outside the State.Form of Application for grant of Certificate of Competency to a person under sub-rule (2) of Rule 2A.

1. Name.

2. Date of Birth.

3. Name of the organisation (if not self-employed).

4. Designation.

5. Educational qualification (Copies of testimonials to be attached).

6. Details of professional experience (in Chronological order).

Name of Organisation Period of Service Designation Area of Responsibility

7. Membership, if any, of professional bodies.

8.

(i). Details of facilities (examination, testing etc.) at his disposal.(ii)Arrangements for calibrating and maintaining the accuracy of these facilities.

9. Purpose for which competency certificate is sought (section or sections of the Act should be stated).

10. Whether the applicant has been declared as a competent person under any statute (if so. the details).

11. Any other relevant information.

12. Declaration by the applicant.

I....., hereby declare that the information furnished above is true. I undertake:(a)that in the event of any change in the facilities at my disposal (either addition or deletion) or my leaving the aforesaid organization, I will promptly inform the Chief Inspector;(b)to maintain the facilities in good working order. calibrated periodically as per manufactures instructions or as per National Standards; and(c)to fulfil and abide by all the conditions stipulated in the certificate of competency and instructions issued by the Chief Inspector from time to time.PlaceDateSignature of the applicant.Declaration By The Institution (if employed)I.....certify that Shri.....whose details are furnished above, is in our employment and nominate him on behalf of the organisation for the purposes of being declared as a competent person under the Act. I also undertake that I will(a)notify the Chief Inspector in case the competent person leaves our employment;(b)provide and maintain in good order all facilities at his disposal as mentioned above;(c)notify the Chief Inspector any change in the facilities (either addition or deletion).Dated:Signature.....Designation.....Telephone No.....Official SealForm of Application for grant of Certificate of Competency to an Institution under Sub-Rule (2) of Rule 2A.

1. Name & full address of the Organisation.

2. Organisations status. (Specify Whether Government, Autonomous Co-operative, Corporate or Private).

3. Purpose for which competency Certificate is sought (specify section (2) of the Act).

4. Whether the organisation has been declared as a competent person under this or any other statute. If so, give details.

5. Particulars of persons employed and possessing qualification and experience as set out in Schedule annexed to sub-rule (1) of the Rule 2A.

Sl. No.	Name andDesignation	Qualification	Experience	Section (2)under which competency is soughtfor
1.2.				

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

7. Any other relevant information.

8. Declaration:

I.....hereby on behalf of.....certify the details furnished above are correct to the best of my knowledge. I undertake to(i)maintain the facilities in good working order, calibrated periodically as per manufacturers instructions or as per National standards; and(ii)to fulfil and abide by all the conditions stipulated in the certificate of competency and instructions issued by the Chief Inspector from time to time:Place & DateSignature of Head of theInstitution or of the personsauthorised to Sign on his behalf.Designation.Form of Certification of Competency issued to a person or an institution in pursuance of Rule 2A made under section 2(ca) read with Section.....I.....in exercise of the powers conferred on me under Section 2 (ca) of the Factories Act and the rules made thereunder, hereby recognize.....(Name of the Institution)or Shri.....Name of the person)employed in.....to be a(Name of the organisation)competent person for the purpose of carrying out tests, examinations, inspections and certification for such buildings, dangerous machinery, lifts and hoists, lifting machines and lifting tackles, pressure plants, confined space, ventilation system and process or plant and equipment as the case may be, used in a factory located in.....under section.....and the Rules made thereunder (Strike out the words not applicable).This certificate is valid from.....to.....This certificate is issued subject to the conditions stipulated hereunder: (i)Tests, examinations and inspections shall be carried out in accordance with the provisions of the Act and the rules made thereunder;(ii)Tests, examinations and inspections shall be carried out under direct supervision of the competent person or by a person so authorised by an institution recognised to be a competent person;(iii)The certificate of competency issued in favour of a person shall stand cancelled if the person leaves the organisation mentioned in his application;(iv)The institution recognised as a competent person shall keep the Chief Inspector informed of the names, designations and qualifications of the persons authorised by it to carry out tests, examinations and inspections.(v)(vi){||-| Station| Official Seal| Signature of the Chief Inspector.|}DateNote: A separate certificate should be issued under each relevant section-A person or and institution may be recognised competent for the purpose of more than one section of the Act.

Schedule

S.No.	Section or rule under which competency isrecognised	Qualification on required	Experience for the purpose	Facilities at his command
1	2	3	4	5
1.	Rules made under Section 6 and Section 113-Certificate	Degree in Civil or structural Engineering or equivalent.	(i)A minimum of 10 years experience in the design ofconstruction or testing or repair of structure;(ii)	

	ofstability for Buildings.		Knowledge of nondestructive testing, various codes ofpractice that are current and the effect of the vibrations andnatural forces on the stability of the building; and(iii)Ability to arrive at a reliable conclusion with regard tothe safety of the structure or the buildings.	
2.	Rules made under Section 21(2) "Dangerous Machines"	Degree in Electrical or Mechanical or Textile Engineering orEquivalent.	(i) A minimum of 7 years experience in-(a) The design oroperation or maintenance; or(b) Testing, examination andinspection of relevant machinery, their guards, safety devicesand appliances.(ii) He shall (a) be conversant with safety devices and theirproper functioning;(b) be able to identify defects and anyother cause leading to failure; and(c) have ability to arriveat a reliable conclusion with regard to the proper functioning ofthe safety device and appliance and machine guard.	Gauges for measurement Instruments for measurement of speedand any other Equipment or device to determine the safety in theuse of the dangerous machines.
3.	Section 28 Lifts and Hoists	A degree in Electrical and or Mechanical Engineering or itsequivalent.	(i) A minimum Experience of 7 yearsin(a) design or erection or maintenance or(b)inspection and test procedure of lifts and hoists(ii) He shall be-(a) Conversant with relevant codes ofpractices and test procedure that are current;(b) Conversantwith other statutory requirements	Facility for load testing, tensile testing, gaugesequipments/gadgets for measurement and any other equipmentrequired for determining the safe working conditions of Hoistsand Lifts.

			covering the safety of theHoists & Lifts;(c) able to identify defects and arrive ata reliable conclusion with regard tot he safety of the Hoists andLifts.	
4.	Section 29 Lifting Machinery and Lifting Tackles.	Degree in Mechanical or Electrical or MetallurgicalEngineering or its equivalent.	(i) A minimum experience of 7 yearsin -(a) design or erection or maintenance, or(b)testing,examination and inspection of lifting machinery, chains, ropesand lifting tackles.(ii) He shall Be-(a) conversant with the relevant codes ofpractices and test procedures that are current.(b) conversantwith fracture mechanics and metallurgy of the material ofconstruction.(c) conversant with heat treatment/stressrelieving techniques as applicable to stress bearing componentsand parts of lifting machinery and lifting tackles.(d)Capable of identifying defects and arriving at a reliableconclusion with the safety pf the lifting machinery, chains,ropes and lifting tackles.	Facilities for load testing, tensile, heat treatment,equipment/gadget for measurement, guages and such other equipmentto determine the safe working conditions of the lifting machinerytackle.
5.	Section 31 – 'Pressure Plant”	Degree in Chemical or Electrical or Metallurgical orMechanical Engineering or its equivalent.	(i) A minimum experience of 10years in -(a) design or erection or maintenance, or(b)testing, examination and inspection of pressure plants.(ii) He shall be -(a) conversant with the relevant codesof practices	Facilities for carrying out hydraulic test, nondestructivetest, gauges equipment/gadgets for measurement and any

			and test procedures relating to pressurevessels;(b) conversant with statutory requirements concerningthe safety of unfired pressure vessels and equipments operatingunder pressure:(c) conversant with nondestructive testingtechniques as are applicable to pressure vessels;(d) able toidentify defects and arrive at a reliable conclusion with regardto the safety of the pressure plant.	otherequipment of gauges to determine the safety in the use ofpressure vessels.
6.	(i) Section 35-Precautions against dangerous fumes.	Master's degree in chemistry or a degree in chemicalEngineering.	(i) A minimum of 7 years incollection & analysis of environmental samples andcalibration of monitoring equipments.:(ii) He shall(a) be conversant with the hazardousproperties of chemical and their permissible limit values;(b)be conversant with the current techniques of sampling andanalysis of the environmental contaminants;and(c) be ableto arrive at a reliable conclusion as regards the safety inrespect of entering and carrying out hot work.	Meters, instruments and devices duly calibrated and certifiedfor carrying out the tests and certification of safety in workingin confined spaces.
7.	Ventilation system as required under various schedules framedunder	Degree in Mechanical or Electrical Engineering or equivalent.	(i) A minimum of 7 years in the design, fabrication,installation, testing of ventilation	Facilities for testing the ventilation system, instruments andgauges for

section 87, such as schedules on-(i) Grinding orglazing of metals and process incidental there to(ii) Cleaning or smoothing, roughening etc. of articles, bygadgets sand, metal shot or grit of other abrasive propelled by a– Blast of compressed air of steam;(iii) Handling and processing of Asbestos;(iv) Manufacture of Rayon by viscose process;(v) Foundry operations.]	system used for extractionand collection of dusts, fumes and vapours and other ancillaryequipments;(ii) He shall be conversant with relevant codes of practicesand test procedures that are current in respect of ventilationand a traction system for fumes, and shall be able to arrive at areliable conclusion with regard to effectiveness of the system.	testing the effectiveness of the extraction system fordusts, vapours and fumes and any other equipment needed fordetermining the efficiency and adequacy of these systems.He shall have the assistance of a suitable qualified technicalperson who can come to a reasonable conclusion as to the adequacyof the system.

Rules 3 to 11 prescribed under Sub-section (1) of section 6

3. [Submission of plans. The Chief Inspector of Factories may require for the purposes of the Act. submission of plans of any factory which was either in existence on the date of commencement of the Act or which has not been constructed or extended since then. Such plans shall be drawn to scale showing:

[Added by G.S.R. No. 1-A, dated 14.7.1979 [2-8-1979].](a)the site of the factory and immediate surrounding including adjacent building and other structures, roads, drains etc. drawn to a scale not less than [1 cm = 10 metres];(b)the plan elevation and necessary cross sections of the factory buildings indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire. and the position of the plant and machinery, aisles and passage ways; and shall be drawn to a scale not less than [1 cm = 2 metres] [Substituted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].]; and(c)such other particulars as the Chief Inspector may require.]

3A. [Approval of plans.] [As amended by G.S.R. No. I. dated 24.3.1979 and re-numbered by No. IA. dated 14.7.1979 [2-8-79].] (1) No site shall be used for the location of a factory or no building in a factory be constructed. extended, or taken into use as a factory or part of a factory unless previous permission in writing is obtained from the Chief Inspector of factories.

Application for such permission shall be made [either in the prescribed Form No. 1 or in the Part I and Part-IX of Single Composite Application Form prescribed by the Bureau of Investment Promotion, Rajasthan] [As amended by G.S.R. No. I. dated 24.3.1979 and re-numbered by No. I-A, dated 14.7.1979 [2-8-79].] which shall be accompanied by the following documents:(a)A flow chart. of the manufacturing process supplemented by a brief description of the process in its various stages.(b)Plans in duplicate drawn to scale showing:(i)the site of the factory and immediate surroundings including adjacent buildings and other structures. roads. drains etc. drawn to a scale not less than [1 cm = 10 metres] [Substituted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].], and(ii)the plans. 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 shall be drawn to a scale not less than [1 cm = 2 metres]. [Substituted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].](c)Such other particulars as the Chief Inspector may require.(2)If the Chief Inspector is satisfied that the plans are in consonance with the requirements of the Act, 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.

3B. [Prohibition of use of premises as factory without licence. An occupier shall not use any premises as a factory or carry on any manufacturing process in a factory unless a licence has been issued in respect of such premises and is in force for the time being:

Provided that if a valid application for grant of licence has been submitted and the required fee has been paid. the premises shall be deemed to be fully licensed until such date as the Chief Inspector grants or renews the licence or refuses in writing to grant or renew licence.][Substituted by No. 1 dated 24.3.1979 [26.4.1979] and renumbered by No.1-A. dated 14.7.1979 [2.8.1979].]

3C. [Certificate of Stability. (1) No manufacturing process shall be carried on in any building of a factory constructed. Reconstructed or extended. or in any building which has been taken into use as a factory or part of a factory until a certificate of stability in respect of that building in the form given below has been sent by the occupier or manager of the factory to the Chief Inspector. and accepted by him.

Form of Certificate of Stability

1. Name of the factory.....

2. Village. town and district in which the factory is situated.....

3. Full postal address of the factory.....

4. Name of the occupier of the factory.....

5. Nature of manufacturing process to be carried on in the factory.....

6. Number of floors on which workers will be employed.....

I certify that I have inspected the building/buildings the plants of which have been approved by the Chief Inspector in his letter No.....dated and examined the various parts including the foundations with special reference to the machine. plant etc.. that have been installed. I am of the opinion that the building/buildings which has/have been constructed/reconstructed/ extended taken into use is/are in accordance with the plans approved by the Chief Inspector in his letter mentioned above. that it/they is/are structurally sound and that its/there stability will not be endangered by its/their use as a factory/part of a factory for manufacture of for which the machinery. plant. etc. installed are intended.Signature.....Qualifications.....Address.....Dated.. employed by a company or association name and address of the company of association.(2)The certificate of stability referred to in sub-rule (1) shall be signed by a competent person.][Added by GSR No. 4. dated 8.1.1991[25-6-1992].]

4. Notice of occupation of a factory and application for its registration and grant of licence.

(1) The occupier of every factory coming within the scope of this Act, after its commencement shall submit to the Chief Inspector an application in triplicate [either in Form No. 2 or in the Part-I and Part-IX of Single Composite Application Form prescribed by the Bureau of Investment Promotion, Rajasthan] [Substituted by G.S.R. No. 71, dated 22.10.2002.] for the registration of the factory and grant of a licence therefor [for a period not exceeding [Inserted by No. 2 dated 25.2.1985 [1-4-85].][five years]) [Substituted by No. 4-A dated 8.6.1994 [13.6.94].]:[Provided that if the period for which the licence is applied for is one year or more but does not exceed [five years] [Inserted by No. 2 dated 25.2.1985 [1-4-85].], the fees payable therefore per year shall be at the rate specified in Schedule A & B as prescribed under rule 4]:Provided further that the occupier of a place to which the provisions-of the Act are made applicable by notification under section 85 of the Act shall submit an application within 30 days of the date of that notification.(2)every such application shall be accompanied by Treasury Receipt or by a crossed Indian Postal Order [x x x] [Omitted by No.2 dated 25.2.1985 [1-4-85].] or a Bank Draft [x x x] [Omitted by No. 2 dated 25.2.1985 [1-4-85].] as

the case may be. for payment of the fee prescribed for the purpose as specified in Schedules A & B below.[Schedule A] [Substituted by G.S.R. No.83 dated 2.12.2002.]Scale of Fees payable per year for Original Licence & for Renewal of Licence for the Factories other than Electricity Generating, Transforming or Transmitting Factories: [Schedule A [Substituted by G.S.R. No. 83, dated 5-12.2002 [1.4.2003].]Scale of Fees payable per year for Original Licence & for Renewal of Licence for the Factories other than Electricity Generating, Transforming or Transmitting Factories:

Quantity	Maximum number of persons to be employed onany day during the year											
Of H.P. Installed (max.) up to	Up to 09	From 10 to 20	From 21 to 50	From 51 to 100	From 101 to 250	From 251 to 500	From 501 to 750	From 751 to 1000	From 1001 to 1500	From 1501 to 2000	From 2001 to 3000	Above 3000
Nil	0	100	200	425	600	1025	1550	2275	2575	3100	4125	5175
10	100	200	425	675	1025	1550	2050	3100	3775	4475	5500	6900
50	200	425	675	1025	1550	2050	3100	4125	5175	6550	25	8625
100	425	675	1025	1550	2050	3100	4125	5175	6550	25	8625	10350
250	600	1025	1550	2050	3100	4125	5175	6550	25	8625	10350	12925
500	1025	1550	2050	3100	4125	5500	25	8625	10350	12925	15525	150
1000	1550	2050	3100	4125	5500	25	8625	10350	12925	15525	150	18975
2000	2050	2575	3775	5500	25	8625	10350	12925	15525	150	18975	20700
5000	2575	3100	4125	6550	8625	10350	12925	15525	150	18975	20700	21550
10000	3100	3775	5500	7575	10350	12925	13800	16200	18975	20700	21550	23100
15000	4125	4650	6900	9300	12400	14825	150	19650	23100	24150	25825	27600
20000	5175	6200	8950	12400	16550	20000	20700	26900	31050	32200	34500	37950
Above 20000	11500	13900	18050	20925	23450	26450	29200	31050	32200	34500	37950	40250]

The scale of fees payable for original licence shall be 50% more than the renewal of licence above.[Schedule-B[Substituted by G.S.R. No. 83 dated 2.12.2002. [1.4.2003]]Scale of Fees Payable for Licence and Annual Renewal of Licence by all Electricity Generating and Transforming Factories(a)Generating and transforming (including converting) Stations (Factories):-

	Fees payable in Rupees	
Total installed generating capacity in K.W.	Generating Stations	Transforming (including converting)stations

	1	2	3
Not exceeding	50	150	75
Not exceeding	100	275	150
Not exceeding	150	325 225	
Not exceeding	300	450	275
Not exceeding	500	575	325
Not exceeding	750	800	450
Not exceeding	1000	900	575
Not exceeding	2500	1150	850
Not exceeding	5000	15	1150
Not exceeding	10000	2000	1425
Not exceeding	25000	2300	15
Not exceeding	50000	3450	2300
Not exceeding	75000	4600	2875
Not exceeding	100000	5750	3700
Not exceeding	150000	6900	4600
Not exceeding	200000	8050	5750
Not exceeding	300000	9200	7475
Over	300000	11500	9200

(b)Transmitting factories All transmitting Stations Rs. 575Explanation: 1. Where an electricity generating factory includes a transmitting or converting station or plant meant for receiving, transforming, converting or transmitting or electric power supplied from a source outside the generating station and which is not meant for transforming, converting or transmitting of power generated in the generating station itself, the fees payable shall be the sum of fees payable by the generating, transforming (including converting) and transmitting stations respectively calculated separately as if they were separate factories.

2. If any generating, transforming, converting or transmitting station is situated in a factory for which licence fees has been prescribed in Schedule B and if it is meant for supplying power only to the said factory exclusively and is a part of the said factory the fees will be payable in accordance with Schedule A and not Schedule B and on the basis of the total rated horse power installed in the factory.]

5. Grant of Licence.

(1) Chief Inspector may, on application being made to him under sub-rule (1) of rule 4 and on payment of fees prescribed in sub-rule (2) of rule 5 and on being satisfied that there is no objection to the grant of licence applied for register the factory and grant a licence [for a period not excluding

[Inserted by No. 2 dated 25.2.1985 [1-4-85]][five years] [Substituted by No. 4-A. dated 8.6.1994 [13.6.94].] at a time] in Form No.4 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 6. the Chief Inspector may refuse to register the factory and grant of a licence, if he is satisfied: (i)that an application is not accompanied by plans:(a)of the site on which the factory is to be situated, and(b)for the construction or extension of the factory,(ii)that the plans so submitted have not been approved by the Chief Inspector;(iii)that the factory has not been constructed in accordance with the plans approved by the Chief Inspector or in compliance with the conditions subject to which the plans are approved;(iv)that material requirements of the relevant provisions specified in Schedules to rule 100- in relation to the factory concerned have not been complied with; or(v)that there is imminent danger to life 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 cancellation and unless earlier renewed under rule 7, every such licence shall remain in force until the 31st day of [March] [Substituted by No.2. dated 27.7.1985 [1-4-85].] next following and shall then expire.

6. Amendment of Licence.

(1) A licence granted under rule 5 [or renewed under rule 7] [Inserted by No.2. dated 25.2.1985 [1-4-85].] maybe amended by the Chief Inspector.(2)A licence shall be required to have the licence amended if there is change in the name of the factory, 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 persons employed.(3)A licensee who desires to have his licence amended shall submit it to the Chief Inspector with an application stating the nature of the amendment and reasons therefor.(4)[The fees for the amendment of a licence shall be hundred rupees plus the amount, if any, by which the fee that would have been payable if the licence had originally being issued in the amended form exceeds the fee originally paid for the licence.][Substituted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002]]

7. Renewal of licence.

(1) An application for the renewal of licence [for a period not exceeding [five years] [Inserted by No.2, dated 25.2.1985 [1-4-85].]] shall be made to the Chief Inspector [Dy. Chief Inspector] [Inserted by No. 2, dated 25.2.1985 [1-4-85].] [either in Form No. 2 or in the Part I and Part-IX of Single Composite Application Form prescribed by the Bureau of Investment Promotion, Rajasthan] [Substituted by No. 71, dated 22.10.2002] in triplicate accompanied by a Treasury receipt [x x x] [Omitted by No. 2, dated 25.2.1985 [1-4-85].] or Bank Draft [x x x] [Omitted by No. 2, dated 25.2.1985 [1-4-85].] as the case may be, for payment of the fees specified in the Schedule attached to rule 4, so as to reach him not later than two months before the date on which the licence is due to expire:Provided that where a factory commences work on or after the 1st day of [February] [Substituted by No. 2, dated 25.2.1985 [1-4-85].] in any year, application for renewal of licence shall be made on or before the 1st day [April] [Substituted by No. 2, dated 25.2.1985 [1-4-85].] next following:[Provided further that. if the period for which the licence is applied for is one year or more

but does not exceed [five years] [Inserted by No. 2, dated 27.2.1985 [1.4.85].]. the fees payable therefor per year shall be at the rate as specified in Schedule A & B prescribed under rule 4.](2)On receipt of the application under sub-rule (1). the Chief Inspector [/Dy. Chief Inspector] [Inserted by No. 2, dated 25.2.1985 [1-4-85].] may. if he is satisfied that there is no objection to the renewal of the licence. renew the same [for a period not exceeding [five years] [Inserted by No.2, dated 25.2.1985 [1-4-85].] at a time] or may, after recording his reasons, refuse the renewal of licence applied for on any of the grounds specified in the proviso to sub-rule (I) of rule 5:[Provided that the period for which the licence is applied for is one year or more but does not exceed [five years] [Inserted by No. 2. dated 25.2.1985 [1-4-85].] the fees payable therefor per year shall be at the rates specified in the Schedule A & B prescribed to rule 4:]Provided further that where the application for the renewal of the licence is made after the expiry of the due date specified in sub-rule (1) it may be renewed on payment of an additional fee of 25 per cent of the fee payable for the renewal of the licence.(3)[Every licence renewed under this rule shall remain in force up to 31st March of the year for which the licence is renewed.][Inserted by No. 2. dated 25.2.1985 [1-4-85].]

7A. When licence deemed to be granted or renewed.

Where an 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 licence is granted 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 of 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 [x x x] [Omitted by No.2. dated 25.2.1985 [1-4-85].] or a Bank Draft [x x x] [Omitted by No. 2. dated 25.2.1985 [1-4-85].], as the case may be, for payment of the fees in accordance with the Schedule annexed to rule 4.

7B. [Revocation of licence. The Chief Inspector at any time before the expiry of the period for which the licence has been granted or renewed may revoke the licence on any of the grounds specified in sub-rule (1) of rule 5.]

[Inserted by No.2. dated 25.2.1985 11-4-85).]

8. Transfer of licence.

(1) The holder of a licence may at any time before the expiry of the licence, apply for permission to transfer his licence to another person.(2)Such application shall be made to the Chief Inspector who shall if he approves of the transfer, enter upon the licence, under his signature an endorsement to the effect that the licence has been transferred to the person named.(3)[A fee of hundred rupees shall be charged on each such application][Substituted by GSR No. 49, dated 8.8.2002 [13.8.2002].]

9. Procedure on death or disability of licensee.

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 Act 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 6 in his own name for the unexpired portion of the original licence.

10. [Loss of licence. (1) Where a licence granted under these rules is lost or destroyed, a duplicate thereof may be granted on payment of a fee of rupees hundred or fifty percent of the registration fees, which ever is less.

(2)The Chief Inspector may require a licensee to obtain a duplicate licence on payment of rupees hundred or fifty percent of the registration fees, which ever is less, if the original licence is defaced or spoiled:Provided that Chief Inspector may issue a duplicate licence without charge, if he is satisfied that there are good and sufficient reasons for doing so.][Substituted by GSR No. 49, dated 8.8.2002 [13.8.2002]]

11. Mode of payment of fees.

(1) Every application under these rules shall be accompanied by a treasury receipt showing that the appropriate amount of fees has been paid into the local treasury under the head of account "087 -Labour and Employment (C) Fees Realised under the Factories Act," [x x x] [Omitted by No.2. dated 25.2.1985 [1-4-85].] or Bank Draft for the appropriate amount of fees drawn in favour of Chief Inspector:Provided that in case of a Government factory. payment of appropriate amount of fees shall be. made in the same manner as payment of amounts due by one Government Department to another are ordinarily made.(2)If an application for the grant. renewal or amendment of a licence is rejected. the fee paid shall be refunded to the applicant.(3)Where such application is granted, any amount paid by the applicant in excess of the prescribed fee shall be refundable only after the expiry of one year from the date of such grant or the same may be adjusted against payment of any fees due for the next succeeding year.

11A. Suspension of licence

(1) If before the 31st [January] [Substituted by No.2. dated 25.2.1985 [1-4-85].] of any year an occupier notifies his intention in writing to the Chief Inspector that during the year following. the premises in respect of which licence is issued will not be used for the working of the factory. the Chief Inspector may suspend the licence granted in respect of such factory.(2)A licence-suspended under sub-rule (1) may be reviewed on receipt of an application for renewal in Form No.2 accompanied by the licence, for the remaining part of the year. on payment of surcharge of 10 per cent, in addition to the fees specified in these rules.

12. Notice of occupation.

The notice of occupation shall be in Form No.2.Form, prescribed under Sub-section (1) of Section 7

12A. Notice of change of Manager.

The notice of change of Manager required under sub-section (4) of section 7 of the Act shall be in Form No.3-A.

12B. [Guidelines instructions and records. (1) without prejudice to the general responsibility of the occupier to comply with the provisions of Section 7(A), the Chief Inspector, may, from time to time, issue guidelines and instructions regarding the general duties of the occupier relating to health safety and welfare of all workers while they are at work in the factory.

(2)The occupier shall maintain such records, as may be prescribed by the Chief Inspector in respect of monitoring of working environment in the factory.][Added by No.4. dated 8.1.1991 [25-6-1992].]

Chapter II
Inspecting Staff

Rule prescribed under Section 9

13. Powers of Inspectors.

An Inspector shall for the purpose of the execution of the Act, have power to do all or any of the following things that is to say(a)to photograph any worker, to inspect, examine, measure copy, photograph, sketch or test, as the case may be, any building or room, any plant, machinery, appliance or apparatus, any register or document, or anything provided for the purpose of securing the health, safety or welfare of the workers employed in a factory;(b)in the case of an Inspector who is a duly qualified medical practitioner, to carry out such medical examinations as may be necessary for the purposes of his duties under the Act;(c)to prosecute, conduct or defend before a Court any complaint or other proceeding arising under the Act on in discharge of his duties as an Inspector:Provided that the powers of the District Magistrates and such other public officers as are appointed to be Additional Inspectors shall be limited to the inspection of factories in respect of the following matters, namely:Cleanliness (Section 11), Over-crowding (Section 16), Lighting (Section 17), Drinking water (Section 18), Latrines and Urinals (Section 19), Spittoons (Section 20). Precautions in the case of Fire (Section 38), Welfare (Chapter V), Working hours of adults (Chapter VI except the power of exemption under the proviso to (Section 62), Employment of young persons (Chapter VII), Leave with wages (Chapter VIII) and display of notices (Section 108):Provided further that (i)the District Magistrate shall not pass any original orders or remarks under sections

11, 17 and 38 of the Act but shall limit and confine his orders or remarks under those sections to the points to which the full time Inspector of Factories, has already directed the attention or Manager or occupier of the factory as the case may be:(ii)All Additional Inspector except District Magistrate, shall report the defects found and remedies suggested for enforcing compliance with requirements of sections referred to above, to the Chief Inspector who shall pass final orders in each case.Rule prescribed under Sub-section (4) of Section 10

14. Duties of certifying Surgeon.

(1) For purposes of the examination and certification of young persons who wish to obtain certificate of fitness, the Certifying Surgeon 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 Managers of Factories situated within the local limits assigned to him.(2)The Certifying Surgeon shall issue his certificates in Form No. 5. The foil and counterfoil shall be filled in and the left thumb mark 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 granted under section 69. All counterfoils shall be kept by the Certifying Surgeon for a period of at least 2 years after the issue of the certificate.(3)If a certificate of fitness issued to a young person is lost, on receipt of an application for the grant of a duplicate, the Certifying Surgeon 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 young person is employed.[(3-A)(a) A fee of Re. 1/- shall be payable for the issue of every certificate of fitness issued under vile 14(2) and shall be paid by the occupier.(b)A fee of Re. 0.50 P. shall be payable of the issue of every duplicate certificate under rule 14 (3) and shall be paid by the occupier.(c)The Certifying Surgeon shall credit all the collections of fee made under sub-rule in the Government Treasury at the end of each quarter in head of account as given under rule 11.](4)The Certifying Surgeon shall, upon request by the Chief Inspector, 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 on, or other conditions of work prevailing therein, or(b)by reason of any change in the manufacturing process carried on, or in the substances used therein, or by reason 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 workers employed in that manufacturing process, or(c)young persons are, or are about to be, employed in any work which is likely to cause injury to their health.(5)For the purpose of the examination of persons employed in processes covered by the Rules relating to Dangerous Operations, the Certifying Surgeon shall visit the factories within the local limits assigned to him at such intervals as are prescribed by the Rules relating to such Dangerous Operations.(6)At such visits the Certifying Surgeon shall examine the persons employed in such processes and shall record the results of his examination in a Register known as the Health Register (Form No. 19) which shall be kept by the factory manager and produced to the Certifying Surgeon at each visit.(7)If the Certifying Surgeon finds as a result of his examination that any person employed in such process is no longer fit for medical reasons to work in that process

for such time as he may think fit and no person after suspension shall be employed in that process without the written sanction of the Certifying Surgeon in the Health Register.(8)The Manager of a factory shall afford to the Certifying Surgeon facilities to inspect any process in which any person is employed or is likely to be employed.(9)The Manager of a factory shall provide for the purpose of any medical examination which the Certifying Surgeon 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.

Chapter III
Health

Exemptions under Sub-section (2) 2 of Section 11

15. Cleanliness of walls and ceilings.

(1) Clause (d) of sub-section (1) of section 11 of the Act shall not apply to the class or description of factories or parts of factories specified in the Schedule hereto:Provided that they are kept in a clear state by washing, sweeping, brushing, dusting, vacuum-cleaning or other effective means:Provided further that the said clause (d) shall continue to apply: (i)as respects factories or parts of factories specified in Part A of the said Schedule, to work-rooms in which the amount of cubic space allowed for every person employed in the room is less than [14 cubic metres] [Substituted by No. 1, dated 24.3.1979.]:(ii)as respects factories or parts of factories specified in Part B of the said Schedule, to work-rooms in which the amount of cubic space allowed for every person employed in the room is less than [70 cubic metres] [Substituted by No. 1, dated 24.3.1979.];(iii)to engine houses, fitting shops, lunch-room canteens, shelters, creches, cloak-rooms, rest-rooms, and wash places: and(iv)to such parts of walls, sides and tops of passages and stair-cases as are less than [6 metres] [Substituted by No. 1. dated 24.3.1979.] above the floor or stair.(2)If it appears to the Chief Inspector that any part of a factory to which by virtue of sub-rule (1) any of the provisions of the said clause (d) do not apply, or apply as varied by sub-rule (1), is not being kept in a clean state, he may by written notice require the occupier to white-wash or colour-wash, wash, paint or varnish the same, and in the event of the occupier failing to comply with such requisition within two months form the date of the notice, sub-rule (1) shall cease to apply to such part of a factory, unless the Chief Inspector otherwise determines.

Schedule 2

Part A

Blast Furnaces.Brick and tile works in which unglazed bricks or tiles are made.Cement works.Chemical works.Copper mills.Gas works.Iron and steel mills.Stone, slate and marble works.The following parts of factories:Rooms used only for the storage of articles.Rooms in which the walls or ceilings consist of galvanised iron glazed bricks, glass, slate, asbestos, bamboo,

thatch.Parts in which dense steam is continuously evolved in the process.Parts in which pitch, tar or like material is manufactured or is used to a substantial extent, except in brush works. The parts of a glass factory known as the glass house. Rooms in which graphite is manufactured or is used to a substantial extent in any process.Parts in which coal, coke, oxide of iron, ochre, lime or stone is crushed or ground.Parts of walls, partitions, ceilings or tops of rooms which are at least [6 metres] [Substituted by No. 1. dated 24.3.1979 [26.4.1979].] above the floor.Ceilings or tops of rooms in print works, bleach works or dye works with the exception of finishing rooms or ware-houses.Inside walls of oil mills below a height of [1.5 metres] [Substituted by No. 1. dated 24.3.1979 [26.4.1979].] from the ground floor level.Inside walls in tanneries below a height of [1.5 metres] [Substituted by No.l. dated 24.3.1979 [26.4.1979].] from the ground floor level where a wet process is carried on.

Part B

Coach and motor body works.Electric generating or transforming stations.Engineering works.Factories in which sugar is refined or manufactured.Foundries other than foundries in which brass casting is carried on.Gun factories.Ship building works.Those parts of factories where unpainted or unvarnished wood is manufactured.Register prescribed under sub-section (1) of section 11

16. Record of white-washing etc.

The record of dates on which white-washing, colour-washing, varnishing, etc. are carried out shall be entered in a Register maintained in Form No. 7.

16A. Compound to be kept clean.

The compound surrounding every factory shall be maintained in a sanitary and clean condition, free of rubbish, filth or debris.Rule prescribed under sub-section (2) of section 12

17. [Disposal of Trade Wastes and Effluents. The arrangements made in every factory for the treatment of wastes and effluents due to the manufacturing processes carried on therein shall be in accordance with those approved by the relevant Water And Air pollution Boards appointed under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 and other appropriate authorities".]

[Substituted by No.4, dated 8.1.1991 [25-6-1992]]

17A. [Limits of temperature and air movement. (1) In any factory the maximum wet bulb temperature of air in a work-room at a height of 1.5 metres above the floor level shall not exceed 30° C and adequate air movement of at least 30 metres per minute shall be provided, and in relation to dry bulb temperature the wet bulb temperature in the work-room at the said height shall not exceed that shown in the schedule below, or as regards a dry bulb reading intermediate between the two dry bulb readings that specified in relation to the higher of these two dry bulb readings.]

[Inserted by No.1. dated 24.3.1979.]

Schedule 3

Dry bulb temperature °C	Wet bulb temperature °C
30	29.0
31	28.9
32	28.8
33	28.7
34	28.6
35	28.5
36	28.4
37	28.3
38	28.2
39	28.1
40	28.0
41	27.9
42	27.8
43	27.7
44	27.6
45	27.5
46	27.4
47	27.3

Provided that if the temperature measured with a thermometer inserted in a hollow globe of 15 cms. dia. coated mat black outside and kept in the environment for not less than 20 minutes exceeds the dry-bulb temperature of air, the temperature so recorded by the globe thermometer shall be taken in place of the dry bulb temperature:Provided further that when the reading of the wet bulb temperature outside in the shade exceed 27°C the value of the wet bulb temperature allowed in the Schedule for a given dry bulb temperature may be correspondingly exceeding to the same

extent:Provided further that this requirement shall not apply in respect of the factories covered by section 15 and in respect of factories where the nature of work carried on involves production of excessively high temperatures referred in clause (ii) of sub- section (1) of which workers are exposed for short period of time not exceeding one hour followed by an interval of sufficient duration in thermal environments not exceeding those otherwise laid down in this rule:Provided further that the Chief Inspector having due regard to the health of the workers, may in special and exceptional circumstances, by an order in writing exempt any factory or part of a factory from the foregoing requirement, in so far as restricting the thermal conditions within the limits laid down in the Schedule are concerned, to the extent he may consider necessary, subject to such conditions as he may specify.(2)Provision of thermometers. (i) If it appears to the Inspector that in any factory, the temperature of air in a work room is sufficiently high and is likely to exceed the limits prescribed in sub-rule (1), he may serve on the manager of the factory an order requiring him to provide sufficient number of whirling hygrometers or any other type of hygrometers and direct that the dry-bulb and wet-bulb reading in each such work room shall be recorded at such positions as approved by the Inspector. Twice during each working shift by a person specially nominated for purpose by the manager and approved by the Inspector.(ii)If the Inspector has reason to believe that a substantial amount of heat is added inside the environment of a work room by radiation from walls, roofs or other solid surroundings, he may serve on the manager of the factory an order requiring him to provide one or more globe thermometers referred to in the first proviso, in sub-rule (1) and further requiring him to place the globe thermometers at places specified by him and keep a record of the temperatures in a suitable register.(3)Ventilation. (1) In every factory the amount of ventilating openings in a work room below the caves shall, except where mechanical means of ventilation as required by sub-rule (2) are provided, be of an aggregate area of not less than 15% of the floor area and so located as to afford a continued supply of fresh air:Provided that the Chief Inspector:may relax the requirements regarding the amount of ventilating openings if he is satisfied that having regard to the location of the factory, orientation of the work room: prevailing winds, roof height and the nature of manufacturing process carried on, sufficient supply of fresh air into the work room is afforded during most part of the working time:Provided further that this requirement shall not apply in respect of work rooms of factories: (i)covered by section 15; or(ii)in which temperature and humidity are controlled by refrigeration;(iii)where in any factory owing to special circumstances such as situation with respect to adjacent buildings and height of the building with respect to floor space, the requirement of ventilation openings under sub-clause (1) cannot be complied with or in the opinion of the Inspector the temperature of air in a work room is sufficiently high and is likely to exceed the limits prescribed in sub-rule, he may serve on manager of the factory an order requiring him to provide additional ventilation either by means of roof ventilators or by mechanical means;(iv)amount of fresh air supplied by mechanical means of ventilation in an hour shall be equivalent to at least six times the cubic capacity of the work room and shall be distributed evenly throughout the work room without dead air pockets or undue draughts caused by high inlet velocities;(v)in regions where in summer (15th March to 15th July) dry bulb temperatures of outside air in the shade during most part of the day exceed 35°C and simultaneous wet bulb temperatures are 25°C or below and in the opinion of the Inspector the manufacturing process carried on in the work room of a factory permits thermal environments with relative humidity of 50% or more, the Inspector may serve on the manager of the factory an order to have sufficient supply of outside air for ventilation cooled by passing it through water sprays either by means of unit type of evaporative

air coolers (desert cooler) or, where supply of outside air is provided by mechanical means through ducts in a plenum system, by means of Central air washing plants.]Rules 18 to 28 prescribed under sub-section (1) of section 15

18. When artificial humidification not allowed.

There shall be no artificial humidification in any room of a cotton spinning or weaving factory(a)by the use of steam during any period when the dry bulb temperature of that room exceeds 85 degrees:(b)at any time when the wet bulb reading of the hygrometer is higher than that specified in the following Schedule in relation to the dry bulb reading of the hygrometer at that time, or as regards a dry bulb reading intermediate between any two dry bulb readings indicated consecutively in the Schedule when the dry bulb reading does not exceed the wet bulb reading to the extent indicated in relation to the lower of these two dry bulb readings:-

Schedule 4

Dry bulb	Wet bulb	Dry bulb	Wet bulb	Dry bulb	Wet bulb
60.0	58.0	77.0	75.0	94.0	86.0
61.0	59.0	78.0	76.0	95.0	87.0
62.0	60.0	79.0	77.0	96.0	87.5
63.0	61.0	80.0	78.0	97.0	88.0
64.0	62.0	81.0	79.0	98.0	88.5
65.0	63.0	82.0	80.0	99.0	89.0
66.0	64.0	83.0	80.5	100.0	89.5
67.0	65.0	84.0	81.0	101.0	90.0
68.0	66.0	85.0	82.0	102.0	90.0
69.0	67.0	86.0	82.5	103.0	90.5
70.0	68.0	87.0	83.0	104.0	90.5
71.0	69.0	88.0	83.5	105.0	91.0
72.0	70.0	89.0	84.0	106.0	91.0
73.0	71.0	90.0	84.5	107.0	91.5
74.0	72.0	91.0	85.0	108.0	91.5
75.0	73.0	92.0	85.5	109.0	92.0
76.0	74.0	93.0	86.0	110.0	92.0

Provided however, that clause (b) shall not apply when the difference between the wet bulb temperature as indicated by the hygrometer in the department concerned and the wet bulb temperature taken with a hygrometer outside in the shade is less than 3.5 degrees.

19. Provision of hygrometer.

In all departments of cotton spinning and weaving mills wherein artificial humidification is adopted, hygrometer shall be provided and maintained in such positions as are approved by the Inspector. The number of hygrometers shall be regulated according to the following scale:(a)Weaving department. One hygrometer for departments with less than 500 looms, and one additional hygrometer for every 500 or part of 500 looms in excess of 500.(b)Other departments. One hygrometer for each room of less than [8,500 cubic metres] [Substituted by No. 1, dated 24.3.1979.] capacity and one extra hygrometer for each [6,600 cubic metres] [Substituted by No. 1, dated 24.3.1979.] or part thereof, in excess of this.(c)One additional hygrometer shall be provided and maintained outside each cotton spinning and weaving factory wherein artificial humidification is adopted, and in a position approved by the Inspector, for taking hygrometer shade readings.

20. Exemption from maintenance of hygrometers.

When the Inspector is satisfied that the limits of humidity allowed by the Schedule to rule 18 are never exceeded, he may, for any department other than the weaving department, grant exemption from the maintenance of the hygrometer. The Inspector shall record such exemption in writing.

21. Copy of Schedule to rule 18 to be affixed near every hygrometer.

A legible copy of the Schedule to rule 18 shall be affixed near each hygrometer.

22. Temperature to be recorded at each hygrometer.

At each hygrometer maintained in accordance with rule 19, correct wet and dry bulb temperatures shall be recorded thrice daily during each working day by competent persons nominated by the Manager and approved by the Inspector. The temperature shall be taken between 7 a.m. and 9 a.m., between 11 a.m. and 2 p.m. (but not in the rest interval) and between 4 p.m. and 5.30 p.m. In exceptional circumstances, such additional readings and between such hours, as the Inspector may specify, shall be taken. The temperatures shall be entered in a Humidity Register in the prescribed Form No. 6, maintained in the factory. At the end of each month, the persons who have taken the readings shall sign the Register and certify the correctness of the entries. The Register shall always be available for inspection by the Inspector.

23. Specifications of hygrometer.

(1) Each hygrometer shall comprise two mercurial thermometers of wet bulb and dry bulb of similar construction, and equal in dimensions, scale and divisions of scale. They shall be mounted on a frame with a suitable reservoir containing water.(2)The wet bulb shall be closely covered with a single layer of muslin, kept wet by means of wick attached to it and dropping into the water in the reservoir. The muslin, covering and the wick shall be suitable for the purpose, clean and free from size or grease.(3)No part of the wet bulb shall be within [75 mms.] [Substituted by No.1, dated

24.3.1979.] from the dry bulb or less than [25 mms.] [Substituted by No. 1. dated 24.3.1979.] from the surface of the water in the reservoir and the water reservoir shall be blow it, on the side of it away from the dry bulb.(4)The bulb shall be spherical and of suitable dimensions and shall be freely exposed on all sides to the air of the room.(5)The bores of the stems shall be such that the position of the top of the mercury column shall be readily distinguishable at a distance of [60 cms] [Substituted by No.1, dated 24.3.1979.].(6)Each thermometer shall be graduated so the accurate readings may be taken between 50 and 120 degrees.(7)Every degree from 50 degrees up to 120 degrees shall be clearly marked by horizontal lines on the stem, each fifth and tenth degree shall be marked by longer marks than the intermediate degrees and the temperature marked opposite each tenth degree, i.e. 50, 60, 70, 80, 90, 100, 110 and 120.(8)The markings as above shall be accurate, that is to say, at no temperature between 50 and 120 degrees shall be the indicated readings be in error by more than two tenths of a degree.(9)A distinctive number shall be indelibly marked upon the thermometer.(10)The accuracy of each thermometer shall be certified by the National Physical Laboratory, London, or some competent authority appointed by the Chief Inspector and such certificate shall be attached to the Humidity Register.

24. Thermometers to be maintained in efficient order.

Each thermometer shall be maintained at all times during the period of employment in efficient working order, so as to give accurate indications and in particular (a)the wick and the muslin covering of the wet bulb shall be renewed once a week:(b)the reservoir shall be filled with water which shall be completely renewed once a day. The Chief Inspector may direct the use of distilled water or pure rain water in any particular mill or mills in certain localities.(c)no water shall be applied directly to the wick or covering during the period of employment.

25. An inaccurate thermometer not to be used without fresh certificate.

If an Inspector gives notice in writing that a thermometer is not accurate it shall not, after one month from the date of such notice, be deemed to be accurate unless and until it has been re-examined as prescribed and a fresh certificate obtained which certificate khan be kept attached to the Humidity Register.

26. Hygrometer not be affixed to wall, etc. unless protected by wood.

(1) No. Hygrometer shall be affixed to a wall, pillar, or other surface unless protected therefrom by wood or other non-conducting material at least [12.5 mms] [Substituted by No.1, dated 24.3.1979.] in thickness and distant at least [25 mms] [Substituted by No.1, dated 24.3.1979.] from the bulb of each thermometer.(2)No hygrometer shall be fixed at a height of more than [1.78 metres] [Substituted by No.1. dated 24.3.1979.] from the floor to the top of thermometer stem or in the direct droughts form a fan, window, or ventilating opening.

27. No reading to be taken within 15 minutes of renewal of water.

No reading shall be taken for record on any hygrometer, within 15 minutes of the renewal of water in the reservoir.

28. How to introduce steam for humidification.

In any room in which steam pipes are used for the introduction of steam for the purpose of artificial humidification of the air the following provisions shall apply: (a)The diameter of such pipes shall not exceed [50 mms.] [Substituted by No. 1. dated 24.3.1979.] and in the case of pipes installed after 1st day of January, 1950 the diameter shall not exceed [25 mms.] [Substituted by No. 1. dated 24.3.1979.]:(b)Such pipes shall be as short as is reasonably practicable:(c)All hangers supporting such pipes shall be separated from the bare pipes by an efficient insulator not less than [13 ms.] [Substituted by No. 1. dated 24.3.1979.] in thickness:(d)No uncovered jet from such pipe shall project more than [110 mms.] [Substituted by No.1, dated 24.3.1979.] beyond the outer surface of any cover;(e)The steam pressure shall be as low as practicable and shall not exceed [5kg/square cm] [Substituted by No. 1. dated 24.3.1979.](f)The pipe employed for the introduction of steam into the air in a department shall be effectively covered with such non- conducting material as may be approved by the Inspector in order to minimise the amount of heat radiated by them into the department.Rules 29 to 33 prescribed under sub-section (4) of section 17

29.

[x x x][Omitted by No. 4. dated 8.1.1991 [25-6-92].]

30. Lighting of interior parts.

(1) The general illumination over those interior parts of a factory where persons are regularly employed shall be not less than [30 lux] [Substituted by No.1 dated 24.3.1979.] measured in the horizontal plane at a level of [90 cm] [Substituted by No. 1 dated 24.3.1979.] above the floor:Provided that in any such parts in which the mounting height of the light source for general illumination necessarily exceeds [7.5 metres] [Substituted by No. 1 dated 24.3.1979.] measured from the floor or where the structure of the room or the position or construction of the fixed machinery or plant prevents the uniform attainment of this standard, the general illumination at the said level shall be not less than [10 lux] [Substituted by No. 1 dated 24.3.1979.] and where work is actually being done the illumination shall be not less than [30 lux] [Substituted by No. 1 dated 24.3.1979.].(2)The illumination over all other interior parts of the factory over which persons employed pass shall, when and where a person is passing, be not less than [5 lux] [Substituted by No. 1 dated 24.3.1979.] at floor level.(3)Artificial lighting in accordance, with the following standards shall be provided and used in the interior of cotton ginning factories at times when artificial lighting is necessary and is ordinarily used:-(i)by means of electricity, to the satisfaction of the Inspector, one lamp per six gins, each lamp not less than 25 candle power, or(ii)by candles places in glass lanterns of a pattern approved by the Inspector not less than one such lantern for

every two gins.(4)The standard specified in this rule shall be without prejudice to the provision of any additional illumination required to render the lighting sufficient and suitable for the nature of the work.

31. Prevention of glare.

(1) Where any source of artificial light in the factory is less than [5 metres] [Substituted by No. 1 dated 24.3.1979.] above floor level, no part of the light source or of the lighting fitting having a brightness greater than [5 laberts] [Substituted by No. 1 dated 24.3.1979.] shall be visible to persons whilst normally employed within [30 metres] [Substituted by No. 1 dated 24.3.1979.] of the source, except where the angle of elevation from the eye to the source or part of the fitting as the case may be exceeds 20 degree.(2)Any local light, that is to say, an artificial light designed to illuminate particularly the area or part of the area of work of a single operative or small group of operatives working near each other, shall be provided with a suitable shade of opaque material to prevent glare or with other effective means by which the light source is completely screened from the eyes of every person employed at a normal working place, or shall be so placed that no such person is exposed to glare therefrom.

32. Power to Chief Inspector to exempt

Where the Chief Inspector is satisfied in respect of any particular factory or part thereof or in respect of any description of workroom or process that any requirement of rules [30 and 31] [Substituted by No. 4. dated 8.1.1991 [25-6-92].] is inappropriate or is not reasonably practicable, he may by order in writing exempt the factory or part thereof, or description of workroom or process from such requirement to such extent and subject to such conditions as he may specify.

33. [x x x]

[Omitted by No. 4, dated 8.1.1991 [25-6-92].]Rules 34 to 39 prescribed under sub-section (4) of section 18.

34. Quantity of drinking water

The quantity of drinking water to be provided for the workers in every factory shall be at least as many gallons a day as there are workers employed in the factory and such drinking water shall be readily available at all time during working hours.

35. Source of supply.

The water provided for drinking shall be supplied(a)from [x x x] [Omitted by No. 1 dated 24.3.1979.] a public water supply system, or(b)from any other source approved in writing by the Health Officer.

36. [Means of water supply. If drinking water is not supplied directly from taps either connected with public water supply system or any other water supply system of the factory approved by the Health Officer, it shall be kept in suitable vessels, receptacles or tanks fitted with taps and having dust proof covers placed on raised stands or platforms in shade and having suitable arrangements of drainage to carry away the spilled water. Such vessels or receptacles and tanks shall be kept clean and the water renewed at least once every day. All practicable measures shall be taken to ensure that the water is free from contamination.]

[Substituted by No. 1 dated 24.3.1979.]

37. Cleanliness of well or reservoir.

(1) Drinking water shall not be supplied from any open well or reservoir unless it is so constructed, situated, protected and maintained as to be free from the possibility of pollution by chemical, or bacterial and extraneous impurities.(2)Where drinking water is supplied from such well or reservoir the water in it shall be sterilized once a week or more frequently if the inspector by written order so requires and the date on which sterilizing is carried out shall be recorded:Provided that this requirement shall not apply to any such well or reservoir if the water therein is filtered and treated to the satisfaction of the Health Officer before it is supplied for consumption.

38. Report from Health Officer.

The Inspector may be order in writing direct the Manager to obtain, at such time or at such intervals as he may direct, a report from the Health Officer as to the fitness for human consumption of the water supplied to the workers and in every case to submit to the Inspector a copy of such report as soon as it is received from the Health Officer.

39. Cooling of water.

In every factory where in more than two hundred and fifty workers are ordinarily employed: (a)the drinking water supplied to the workers shall from the 1st March to 31st October in every year, be cooled by ice or other effective method:Provided that if ice is placed in the drinking water, the ice shall be clean and wholesome and shall be obtained only from a source approved in writing by the Health Officer:(b)the cooled drinking water shall be supplied in every canteen, lunch-room and rest-room and also at conveniently accessible points throughout the factory which for the purpose of these rules shall be called "Water Centres":(c)the water centres shall be sheltered from the weather and adequately drained:(d)the number of water centres to be provided shall be one 'centre' for every 150 persons employed at any one time in the factory:Provided that in the case of a factory where the number of persons employed exceeds 500 it shall be sufficient if there is one such 'centre' as aforesaid for every 150 persons up to first 500 and one for every 500 persons

thereafter:[Provided further that the distance between the place of work of any workers shall not be more than 50 meter from the nearest water centre or any distance as may be specified by the Inspector.] [Added by No. 4, dated 8.1.1991 [25-6-1992]](e)every "water centre" shall be maintained in a clean and orderly condition:[(e-i) The means of supply of cooled drinking water shall be either directly through taps connected to water coolers or any other system for cooling of water, or by means of vessels receptacles or tanks fitted with taps and having dust proof covers and places or raised stands or platforms in shade, and having suitable arrangement of drainage to carry the spilt water. Such vessels, receptacles or tanks shall be kept clean and the water renewed at least once every day."] [New sub-rule without number, added by No. 4, dated 8.1.1991 [25-6-1992].](f)every water centre shall be in charge of a suitable person who shall distribute the water. Such person shall be provided with clean clothes while on duty.Clause (f) shall not apply to any factory in which suitable mechanically operated drinking water refrigerating units are installed to the satisfaction of the Chief Inspector.Rules 40-49 prescribed under sub-section (3) of Section 19

40. Latrine accommodation.

Latrine accommodation shall be provided in every factory on the following scale (a)where females are employed, there shall be at least one latrine for every 25 females:(b)where males are employed, there shall be at least one latrine for every 25 males:Provided that, where the number of males employed exceeds 100, it shall be sufficient if there is one latrine for every 25 males up to the first 100, and one for every 50 thereafter.In calculating the number of latrines required under this rule, any odd number of workers less than 25 or 50, as the case may be, shall be reckoned as 25 or 50 and number of workers to be considered shall be the maximum number employed at any time during the day.

41. Latrines to conform to public health requirements.

Latrines, other than those connected with an efficient water-borne sewage system, shall comply with the requirements of the Public Health Authorities.

42. Privacy of latrines.

Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.

43. sign boards to be displayed.

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

44. Urinal accommodation.

Urinal accommodation shall be provided for the use of male workers and shall not be less than [60 cms] [Substituted by No. 1 dated 24.3.1979] in length for every 50 males: provided that where the number of males employed exceeds 500, it shall be sufficient if there is one urinal for every 50 males up to the first 500 employed, and one for every 100 thereafter.In calculating the urinal accommodation required under this rule any odd number of workers less than 50 or 100 as the case may be, shall be reckoned as 50 or 100.

45. Urinals to conform to public health requirements.

Urinals, other than those connected with an efficient water-borne sewage system, and urinals in a factory wherein more than two hundred and fifty workers are ordinarily employed shall comply with the requirements of the Public Health Authorities.

46. Certain latrines and urinals to be connected to sewerage system.

When any general system of underground sewerage with an assured water supply for any particular locality is provided in a municipality, all latrines and urinals of a ,factory situated in such locality shall, if the factory is situated within [30 metres] [Substituted by No. 1 dated 24.3.1979.] of an existing sewer, be connected with that sewerage system.

47. White-washing, colour-washing of latrines and urinals.

The walls, ceilings and partitions of every latrine and urinal shall be white-washed or colour-washed and the white-washing or colour-washing shall be repeated at least once in every period of four months. The dates on which the white-washing or colour-washing is carried out shall be entered in the prescribed Register (Form No. 7):Provided that this rule shall not apply to latrines and urinals, the walls, ceilings or partitions of which are laid in glazed tiles or otherwise finished to provide a smooth, polished impervious surface and that they are washed with suitable detergents and disinfectants at least once in every period of four months.

48. Construction and maintenance of drains.

All drains carrying waste or sullage water shall he constructed in masonry or other impermeable material and shall be regularly flushed and the effluent disposed of by connecting such drains with a suitable drainage line:Provided that, where there is no such drainage line, the effluent shall be deodorized and rendered innocuous and then disposed of in a suitable manner to the satisfaction of the Health Officer.

49. Water taps in latrines.

(1)Where piped water supply is available a sufficient number of water taps, conveniently accessible shall be provided in or near such latrine accommodation.(2)If the piped water supply is not available, sufficient quantity of water shall be kept stored in suitable receptacles near the latrines.Rules 50-52 prescribed under sub-section (2) of Section 20

50. Number of location of spittoons

The number and location of the spittoons to be provided shall be to the satisfaction of the Inspector.

51. Type of spittoons.

The spittoons shall be of either of the following types (a)a galvanised iron container with a conical funnel shaped cover. A layer of suitable disinfectant liquid shall always be maintained in the container;(b)a container filled with dry, clean sand, and covered with a layer of bleaching powder;(c)any other type approved by the Chief Inspector.

52. Cleaning of spittoons.

The spittoon mentioned in clause(a) of rule 51 shall be emptied, cleaned and disinfected at least once every day; and the spittoon mentioned in clause (b) of rule 51 shall be cleaned by scrapping out the top layer of sand as often as necessary or at least once every day.

Chapter IV
Safety

Further precautions prescribed under sub-section (2) of Section 21

53. Further safety precautions.

(1) Without prejudice to the provisions of sub-section (1) of section 21 in regard to the fencing of machines, the further precautions specified in the Schedules annexed hereto shall apply to the machines noted in each Schedule.(2)[The fencing and other devices for protection shall be so constructed and designed as to render it impossible for any person to pass between the fencing and a moving part of the machinery while it is in motion] [Substituted by No. 1 dated 24.3.1979.].[Schedule-I] [Substituted by No. 4, dated 8.1.1991 [25-6-1992]]Textile Machinery except Machinery used in Jute Mills.

1. Application. The requirement of this schedule shall apply to machinery in factories engaged in the manufacture processing of textiles other than Jute textiles. The schedule would not apply to machinery in factories engaged exclusively in the manufacture of synthetic fibres.

2. Definitions. for the purposes of this schedule.

(a)"Calendar" means a set of heavy rollers mounted on vertical side frames and arranged to pass cloth between them. Calendars may have two to ten rollers or bowls. some of which can be heated.(b)"Embossing Calendar" means a calendar with two or more rolls, one of which is engraved for producing figure effects of various kinds on a fabric.(c)"Card" means a machine consisting of cylinders of various sizes-and in certain cases flats-covered with card clothing and set in relation to each so that fibres in staple form may be separated into individual relationship. The speed of the cylinders and their direction of rotation varies. The finished product Is delivered as a silver, Cards different types are the revolving flat card, the roller and clearer card, etc.(d)"Card Clothing" means the material with which the surfaces of the cylinder, defer, flats, etc. of a card are covered and consists of a thick foundation material made of, either textile fabrics through which are pressed many fine closely spaced, specially bent wires, or mounted saw toothed wire.(e)"Comber" means a machine for combine fibres of cotton, wool. etc. The essential parts are device for feeding forward a fringe of fibres at regular intervals and an arrangements of combs or pins, which at the right time pass through the fringe. All tangled fibres, short fibres and nips are removed and the long fibres are laid parallel.(f)"Combined machinery" means a general classification of machinery including cambers, silver lap machines, ribbon lap machines, and pillboxes, but excluding cards.(g)Rotary staple "Cutter" means a machine consisting of one or more rotary blades used for the purpose of cutting textile fibres into staple lengths.(h)"Garnett machine" means any of a number of types of machines for opening hard twisted waste of wool, cotton, silk, etc. Essentially, such machines consist of a lickering one or more cylinders, each having a competent worker and stripper rolls, and a fancy roll and differ. The action of such machines is some-what like that a wool card, but it is much more severe in that the various rolls are covered with garnet wire instead of a card clothing.(i)"GiIl box" means a machine used in the worsted system of manufacturing yams. Its function is to arrange fibres in parallel order. Essentially, it consists of a pair of feed rolls and a series of followers where the followers move at a faster surface speed and perform a combing action."(j)"In-running rolls" means any pair of rolls or drums between which there is a "nip".(k)"Interlocking arrangement" means a device that prevent the setting in motion of a dangerous part of a machine or the machine itself while the guard cover or door provided to safeguard against danger is open or unlocked and which will also hold the guard, cover or door closed and locked while the machine or the dangerous part is in motion.(l)"Kier" means a large metal vat, usually a pressure type, in which fabrics may be boiled out, bleached, etc.(m)"Ribbon lapper" means a machine or a part of a machine used to prepare laps for feeding a cotton comb: its purpose is to provide a uniform lap in which the fibres have been strengthened as much as possible.(n)"Silver lapper" means a machine or a part of a machine in which a number of parallel card silvers are drafted slightly, laid side by side in a compact sheet and wound into a cylindrical package.(o)"Loom" means a machine for effecting the interlocking of two series of yarns crossing one another at right angles. The warp yarns are wound

on a warp beam and pass through handles and reeds. The filling is shot across in a shuttle and settled in place by veeds and slay, and the fabric is wound on a cloth beam.(p)"Starch mangle" means a mangle that is used specifically for starching cotton goods. It commonly consists of two large rolls and a shallow open vat with several immersion rolls. The vat contains the starch solution.(q)"Water mangle" means a calendar having two or more rolls used for squeezing water from fabrics before drying. Water mangles also may be used in other ways during the finishing of various fabrics.(r)"Mule" means a type of spinning frame having a head stock and carriage as its two main sections. The head stock is stationary. The carriage is movable and it carries the spindles which draft and spin the roving into yarn. The carriage extends over the whole width of the machine and moves slowly towards and away from the head stock during the spinning operation.(s)"NIP" is the danger zone between two rolls or drums which by virtue of their positioning and movement create a nipping hazard.(t)"Openers and Pickers" means a general classification of machinery which includes breaker pickers intermediate pickers, finisher pickers, single process pickers, multiple process pickers, willow machines card and pickers waste cleaners. thread extractors, shredding machines, roving waste openers, shoddy pickers, blade, breakers, feeders, vertical opener, lattice cleaners, horizontal cleaners, and any similar machinery equipped with either cylinders screen section, calendar section, rolls, or beaters used for the preparation of stock for further processing.(u)"Paddler" means through for the solution and two or more squeeze rolls between which cloth passes after being passed through a mordant or dye bath.(v)"Plaiting machines" means a machine used to lay cloth into folds of regular length for convenience of subsequent process or use.(w)"Roller Printing Machine" means a machine consisting of a large central cylinder, or pressure bowl, around the lower part of the perimeter of which is placed a series of engraved colour rollers (each having a colour through) a furnishes rollers, doctor blades, etc. The machine is used for printing fabrics.(x)"Continuous bleaching range" means a machine for bleaching of cloth in rope of open-width form with the following arrangement. The cloth, after wetting out, pass through a squeeze roll into a saturator containing a solution of caustic soda and then to an enclosed J-lox. A V-shaped arrangement is attached to the front part of the J-Box for uniform and rapid saturation of the cloth with steam before it is packed down in the J-Box. The cloth, in a single strand rope form, passes over a guide roll down the first arm of the "V" and up the second. Steam is injected into the "V" at the upper end of the second arm so that the cloth is rapidly saturated with steam at this point. The J-Box capacity is such that cloth will remain hot for a sufficient time to complete the scoring action. It then passes a series of washers with a squeeze roll in between. The cloth then passes through a second set of saturator, J-Box and washer, where it is treated with the peroxide solution. By slight modification of the form of the unit, the same process can be applied to open-width cloth.(y)"Mercerizing range" means a 3 bowl mangle, a tenter frame, and a number of boxes for washing and scouring. The whole set up is in straight line and all parts operate continuously. The combination is used to saturate the cloth with sodium hydrozide, stretch it while saturated and washing out most of the caustic before releasing tension.(z)"Sanforizing-Machine" means a machine consisting of a large steam-heated cylinder, and endless, thick, woolen felt blanket which is in close contact with the cylinder for most of its perimeter, and an electrically heated shoe which presses the cloth against the blanket while the latter is in a stretched condition as it curves around feed-in roll.(aa)"Shearing-Machine" means a machine used for shearing cloth. Cutting action is provided by a number of steel blades spirally mounted on a roller. The roller rotates in close contact with a fixed ledger blade. There may be from one to six such rollers on a machine.(bb)"Singling machine" means

a machine which comprises of a heated roller, plate, or an open gas flame. The cloth or yarn in rapidly passed over the roller or the plate or through the open gas flame to remove fuzz or hairiness by burning.(cc)"Slasher" means a machine used for applying a size mixture to wrap yarns. Essentially, it consists of a stand for holding section beams, a size box, one or more cylindrical dryers or an enclosed hot air dryer. and a beaming end for winding the yarn on the loom beams.(dd)"Tenter frame" means a machine for drying cloth under tension. It essentially consists of a pair of endless travelling chains fitted with clips of fine pins and carried on tracks. The cloth is firmly held at the selvages by the two chains which diverge as they move forward so that the cloth is brought to the desired width.(ee)"Warper" means a machine for preparing and arranging the yarns intended for the warp of a fabric, specifically, a beam warper.

3. General Safety requirements. (1) Every textile machine shall be provided with individual mechanical or electrical means for starting and stopping such machines. Belt shifter on machines driven by belts and shafting should be provided with a belt shifter lock of an equivalent positive looking device.

(2)Stopping and starting handles or other controls shall be of such design and so positioned as to prevent the operator's hand or fingers from striking against any moving part of any other part of the machine.(3)All belts, pulleys, gears, chains, sprocket wheels and other dangerous moving parts of machinery which either form part of the machinery or are used in association with it, shall be securely guarded.

4. Opener and pickers. (1) In all opening or picker machinery, beaters and other dangerous parts shall be securely fenced by suitable guards so as to prevent contact with them. Such guards and doors or covers or openings giving access to any dangerous part of the machinery shall be provided with interlocking arrangement:

Provided that in the case of doors or covers of openings giving access to any dangerous part, other than beater covers, instead of the interlocking arrangement, such opening may be so fenced by guards which prevent access to any such dangerous part and which is either kept positively locked in position or fixed in such manner that it cannot be removed without the use of hand tools.(2)The feed rolls on all opening and picking machinery shall be covered with a guard designed to prevent the operator from reaching the nip while the machinery is in operation.(3)The lap forming rollers shall be fitted with a guard or covers which shall prevent access to the nip at the in take of the lap roller and fluted roller as long as the weighted rack is down. The guard or cover shall be so locked that it cannot be raised until the machine is stopped and the machine cannot be started until the cover guard is closed:Provided that the foregoing provision shall not apply to the machine equipped with automatic lap forming devices:Provided further that any such machine equipped with an automatic lap forming device shall not be used unless the automatic lap forming device is in efficient working order.

5. Cotton Cards. (1) All cylinder doors shall be secured by an interlocking arrangement which shall prevent the door being opened until the cylinder has ceased to revolve and shall render it impossible to restart the machine until the door has been closed:

Provided that the latter equipment in respect of the automatic locking device shall not apply while stripping or grinding operations are carried out:Provided further that stripping or grinding operations shall be carried out only by specially trained adult workers wearing tight fitting clothing whose names have been recorded in the register prescribed in this behalf as required in sub-section (1) of Section 22.(2)The licker in shall be guarded so as to prevent access to the dangerous parts.(3)Every card shall be equipped with an arrangement that would enable the card cylinder to be driven by power during stripping/grinding operations without having to either shift the main belt to the fast pulley of the machine or to dismantle the interlocking mechanism. Such an arrangement shall be used only for stripping or grinding operations.

6. Garnet Machine. (1) Garnet licker ins shall be enclosed.

(2)Garnet fancy rolls shall be enclosed by guards. These shall be installed in a way that keeps worker rolls reasonably accessible for removal or adjustment.(3)The underside of the garnet shall be guarded by o screen mesh or other form of enclosures to prevent access.

7. Cill Boxes. (1) The feed end shall be guarded so as to prevent fingers being caught in the pins of the intersecting falters.

(2)All nips in-running rolls shall be guarded by suitable nip guards conforming to the following specifications.Any opening which the guard may permit when fitted in position shall be so restricted with respect to the distance of the opening from any nip point through that opening and in any circumstances the maximum width of the opening shall not exceed the following:

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

8. Silver and Ribbon Lapper (Cotton). The Calendar drums and the lap spool shall be provided with a guard to prevent access to the nip between the in-running rolls:

9. Speed Frames. Jack box wheels at the head stock shall be guarded and the guard shall have interlocking arrangement:

10. Spinning mules. Wheel on spinning mule carriages shall be provided with substantial wheel guard, extending to within 6 mm of the rails:

11. Warpers. Swivelled double-bar gates shall be installed on all warpers operating in excess of 410 meters/min. These gates shall have inter-locking arrangement, except for the purpose of inching or jogging:

Provided that the top and bottom bars of the gate shall be at least 1.05 and 0.53 meters high from the floor or working platform, and the gate shall be located 38 mm from the vertical tangent to the beam head.

12. Slashers : Cylinder dryers. (1) (a) All open nips of in-running rolls shall be guarded by nip guards conforming to the requirements in paragraph 7.

(b)When slashers are operated by control levers these levers shall be connected to a horizontal bar or treadle located not more than 170 cm. above the floor to control the operation from any point.(c)Slashers operated by push button control shall have stop and start buttons located at each end of the machine, and additional buttons located on both sides of the machine at the size box and the delivery end. If calendar rolls are used additional buttons shall be provided at both sides of the machine at point near the nips except when slashers are equipped with an enclosed dryer as in paragraph (b).(2)Enclosed hot air dryer. (a) All open nips of the top squeezing rollers shall be guarded by nip guard conforming to the requirements in paragraph 7(2).(b)When slashers are operated by control levers, these levers shall be connected to a horizontal bar or treadle located not more than 170 cm. above the floor to control the operation from any point.(c)Slashers operated by push-button control shall have stop and start buttons located at each end of the machine and additional stop and start buttons located on both sides of the machines at intervals spaced not more than 1.83 meters on centres.

13. Looms. (1) Each loom shall be equipped with suitable guards designed to minimise the danger from flying shuttles.

(2)Beam weights for tension in beam shall be of such construction so as to prevent it falling during its adjustment.

14. Valves of Biers, tanks, and other containers. (1) Each valve controlling the flow of steam, injurious gases or liquids into a lcier or any other tank or container into which a person is likely to enter in connection with a process, operation, maintenance or for any other purpose, shall be provided with a suitable locking arrangement to enable the said person to lock the valve securely in the closed position and retain the Key with him before entering the kier. tank or container.

(2)Wherever boiling tanks, caustic tanks and any other containers from which liquids which are hot. corrosive or toxic may over flow or speash, are so located that the operator can not see the contents from the floor or working area emergency shut off valves which can be controlled from a point not subject to danger of splash shall be provided to prevent danger.

15. Shearing machines. All revolving blades on shearing machines shall be guarded so that the opening between the cloth surface and the bottom of the guard will not exceed 10 mm.

16. Continuous bleaching range (cotton and rayon). The nip of all in-running rolls of open-with bleaching machine rolls shall be protected with a guard to prevent the workers from being caught at the nip. The guard shall extend across the entire length of the nip.

17. Mercerizing range (piece goods). (1) A stopping device shall be provided at each end of the machine.

(2)A guard shall be provided at each end of the frame between the in-running chain and the clip opener.(3)A nip guard shall be provided for in-running rolls, of the mangle and washers and the guard shall conform to the requirements in paragraph 7 (2).

18. Tendet frames. (1) A stopping device shall be provided at each end of the machine.

(2)A guard shall be provided at each end of the machine frame at the in-running chain and clip opener.

19. Peddlers. Suitable nip guards conforming to the requirement in paragraph 7(2) shall be provided to all dangerous running rolls.

20. Centrifugal extractors. (1) Each extractor shall be provided with a guard for the basket, and the guard shall have interlocking arrangement.

(2)Each extractor shall be equipped with a mechanically or electrically operated brake to quickly stop the basket when the power driving the basket is shut off.

21. Squeezer of wringer extractor, water mangle, starch mangle, back washer (worsted yarn) crabbing machine, and decating machines. All in-running rolls shall be guarded with nip guards conforming to the requirements in paragraph 7(2).

22. Sanforizing and Polymer machine. (1) NIP guard shall be provided on all accessible in running rolls and these shall conform to the requirements in paragraph 7(2).

(2)Access from the sides to the nips of in-running rolls should be fenced by suitable side guards.(3)A safety trip rod, cable or wire centre cord shall be provided across the front and back of all polymer cylinders. extending the length of the face of the cylinder. It shall operate readily whether pushed or pulled. The safety trip shall not be more than 170 cm. above the level at which the operator stands and shall be readily accessible.

23. Rope Washers. (1) Splash guards shall be installed on all rope washers unless the machine is so designed as to prevent the water or liquid from splashing the operator, the floor or working surface.

(2)A safety trip rod, cable or wire centre cord shall be provided across the front and back of all rope washers extending the length of the face of the washer. It shall operate readily whether pushed or pulled. This safety trip shall not be more than 170 cm. above the level on which the operator stands and shall be readily accessible.

24. Laundry washer tumbler or shaker. (1) Each drying tumbler, each double cylinder shaker or clothes tumbler and each washing machine shall be equipped with an interlocking arrangement which will prevent the power operation of the inside cylinder when the outer door on the case or shell is open, and which will also prevent the outer door on the case or shell from being open without shutting of the power and the cylinder coming to a stop. This should not prevent the movement of the inner cylinder by means of a hand operated mechanism or an inching device.

(2)Each closed barrel also be equipped with adequate means for holding open the door or covers of the inner and outer cylinders or shells while it is being loaded or unloaded.

25. Printing machine (roller type). (1) All in running rolls shall be guarded by nip guards conforming to the requirement in paragraph 7(2)

(2)The engraved roller gears and the large crown shell shall be guarded.

26. Calendars. The nip at the in-running side of the rolls shall be provided with a guard extending across the entire length of the nip and arranged to prevent the fingers of the workers from being pulled in between the rolls or between the guard and the rolls, and so constructed that the cloth can be fed into the rolls safely.

27. Rotary staple cutters. The cutter shall be protected by a guard to prevent hands reaching the cutting zone.

28. Plaiting machines. Access to the trap between the knife and card bar shall be prevented by guard.

29. Hand baling machine. An angle iron handle-stop guard shall be installed at right angle to the frame of the machine. The stop guard shall be so designed and so located that it will prevent the handle from travelling beyond the vertical position should be handle slip from the operator's hand when the pawl has been released from the teeth of the take-up gear.

30. Flat work ironer. Each flat work or collar ironer shall be equipped with a safety bar or other guard across the entire front of the feed of first pressure rolls, so arranged that the striking of the bar or guard by the hand of the operator or other person will stop the machine. The guard shall be such that the operator or other person cannot reach into the rolls without removing the guard. This may be either a vertical guard on all sides or a complete cover. If a vertical guard is used, the distance from the floor or working platform to the top of guard shall be not less than 1.83 meters.

II

(Cotton Ginning and Pressing)

1. Line Shaft. The line shaft or second motion in cotton ginning factories, when below floor level, shall be completely enclosed by a continuous wall or unclimbable fencing with only so many openings as are necessary for access to the shaft for removing cotton seed, cleaning and oiling, and such openings shall be provided with gates or doors which shall be kept closed and locked.

2. Gin-house. No person other than the gin-feeder shall be per-mitted to clean cotton on or in the Proximity of a gin-roller where the machine of which it is a part is in motion under power.

3. Press-house. No person working on an opener in pressing factory shall be permitted to feed the machine by means of his legs. All such workers shall wear tight clothing's.

4. Cotton Opener. In all types of openers in use in pressing factories the slope of the feed table shall not be more than one in ten and in no case shall it consist of a smooth metal plate.

The beater or toothed rollers of cotton openers in pressing factories shall be guarded by securely fixing across the feed end of the machine a strong guard of metal or wood with sides closed not more than [30 cms] [Substituted by No. 1 dated 24.3.1979.] above the lattice and not less than [50 cms] [Substituted by No. dated 24.3.1979.]in width so arranged that in no circumstances can a man's hand come in connect with the beaters or rollers.

III

(Wood working Machinery)

1. Definitions. For the purpose of this Schedule:

(a)Wood-working machine means a circular saw, band saw, planing machine, chain mortising machine or vertical spindle molding machine operating on wood or cork:(b)Circular saw means a circular saw working in a bench (including a rack bench) but does not include a pendulum or similar saw which is moved towards the wood for the purpose of cutting operation;(c)Band saw means a band saw, the cutting portion of which runs in a vertical direction but does not include a log saw or band re-sawing machine:(d)Planning machine means a machine for overhand planing or for thicknessing or for both operations.

2. Stopping and Starting device. An efficient stopping and starting device shall be provided on every wood-working machine. The control of this device shall be in such a position as to be readily and conveniently operated by the person in charge of the machine.

3. Space around machines. The space surrounding every wood-working machine in motion shall be kept free from obstruction.

4. Floors. The floor surrounding every wood-working machine shall be maintained in good and level condition, and shall not be allowed to become slippery, and as far as practicable shall be kept free from chips or other loose material.

5. Training and supervision. (1) No person shall be employed at a wood-working machine unless he has been sufficiently trained to work that class of machine, or unless he works under the adequate supervision of a person who has a thorough knowledge of the working of the machine.

(2)A person who is being trained to work a wood-working machine shall be fully and carefully instructed as to the dangers of the machine and the precautions to be observed to secure safe working of the machine.

6. Circular saws. Every circular saw shall be fenced as follows:

(a)Behind and in direct line with the saw there shall be a riving knife, which shall have a smooth surface, shall be strong, rigid and easily adjustable, and shall also conform to the following conditions:-(i)The edge of the knife nearer the saw shall form an are of a circle having a radius not exceeding the radius of largest saw used on the bench.(ii)The knife shall be maintained as close as practicable to the saw, having regard to the nature of the work being done at the time, and at the level of the bench table the distance between the front edge of the knife and the teeth of the saw shall not exceed [12 mms] [Substituted by No. 1 dated 24.3.1979.]:(iii)For a saw of a diameter of less than [60 cms] [Substituted by No. 1 dated 24.3.1979.], the knife shall extend upwards from the bench table to within [25 mms] [Substituted by No. 1 dated 24.3.1979.] of the top of the saw, and for a saw of a diameter of [60 mms] [Substituted by No. 1 dated 24.3.1979.] or over shall extend upwards from the bench table to a height of at least (28.5 ems] [Substituted by No. 1 dated 24.3.1979.];(b)The top of the saw shall be covered by a strong and easily adjustable guard, with a flange at the side of the saw farthest from the fence. The guard shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.(c)The part of the saw below the bench table shall be protected by to plates of metal or other suitable material one on each side of the saw: such plates shall not be more than [15 cms] [Substituted by No. 1 dated 24.3.1979.] apart, and shall

extend from the axis of the saw out wards to a distance of not less than [5 cms] [Substituted by No. 1 dated 24.3.1979.] beyond the teeth of the saw. Metal plates if not beaded, shall be of a thickness of at least [2.5 mms] [Substituted by No. 1 dated 24.3.1979.], or if beaded be of a thickness of at least [1.25 mms].[Substituted by No. 1 dated 24.3.1979.]

7. Push sticks. A push stick or other suitable appliance shall be provided for use at every circular saw and at every vertical spindle molding machine to enable the work to be done without unnecessary risk.

8. Band saws. Every band saw shall be guarded as follows:

(a)Both sides of the bottom pulley shall be completely encased by sheet or expanded metal or other suitable material:(b)The front of the top pulley shall be covered with sheet or expanded metal or other suitable material:(c)All portions of the blade shall be enclosed or otherwise securely guarded except the portion of the blade between the bench table and the top guide.

9. Planning Machines. (1) A planning machine (other than a planing machine which is mechanically fed) shall not be used for overhand planing unless it is fitted with a cylindrical cutter block.

(2)Every planing machine used for overhand planing shall be provided with a "bridge guard" capable of covering the full length and breadth of the cutting slot in the bench, and so constructed as to be easily adjusted both in a vertical and horizontal direction.(3)The feed roller of every planing machine used for thicknessing, except the combined machine for overhand planing and thicknessing, shall be provided with an efficient guard.

10. Vertical spindle molding machines. (1) The cutter of every vertical spindle molding machine shall be guarded by the most efficient guard having regard to the nature of the work being performed.

(2)The wood being molded at a vertical spindle molding machine shall, if practicable be held in a jig or holder of such construction as to reduce as far as possible, the risk of accident to the worker.

11. Chain mortising machines. The chain of every chain mortising machine shall be provided with a guard which shall enclose the cutters as far as practicable.

12. Adjustment and maintenance of guards. The guards and other appliances required under this Schedule shall be

(a)maintained in an efficient state:(b)constantly kept in position while the machinery in motion: and(c)so adjusted as to enable the work to be done without unnecessary risk.

13. Exemptions. Paragraphs 6, 8, 9 and 10 shall not apply to any wood-working machine in-respect of which it can be proved that other safeguards are provided, maintained and used which render the machine as safe as it would be if guarded in the manner prescribed in this Schedule.

IV

(Rubber Mills)

1. Installation of machines. Mills for breaking down creaking, grating, mixing, refining and warming rubber or rubber compounds shall be so installed that the top of the front roll is not less than forty-six inches above the floor or working level; provided that in existing installations where the top of the front roll is below this height a strong rigid distance bar guard shall be fitted across the front of the machine in such position that the operator cannot reach the nip of the rolls.

2. Safety Devices. (1) Rubber mills shall be equipped with

(a)hoppers so constructed or guarded that it is impossible for the operators to come into contact in any manner the nip of the rolls;(b)horizontal safety trip rods or tight wire cables across both front and rear which will, when pushed or pulled, operate instantly to disconnect the power and apply the brakes, or to reverse the rolls.(2)Safety-trip rods or tight wire cables on rubber mills shall extend across the entire length of the face of the rolls and shall be located not more than [1.75 metres] [Substituted by No. 1 dated 24.3.1979.] above the floor or working level.(3)Safety-trip rods and tight wire cables on all rubber mills shall be examined and tested daily in the presence of the Manager or other responsible person and if any defect is disclosed by such examination and test the mill shall not be used until such defect has been remedied.[Schedule-V] [Schedules V, VI & VII, added by No. 4 dated 8.1.1991 [25-6-1992]]Centrifugal Machines

1. Definition. "Centrifugal machines" include centrifugal extractors, separators and dryers.

2. Every part of centrifugal machine shall be

(a)of good design and construction and of adequate strength:(b)properly maintained; and(c)examined thoroughly by a competent person at regular intervals.

3. Interlocking guard for drum or basket. (1) The cage housing of the rotating drum or basket of every centrifugal machine shall be provided with a strong lid. The design and construction of the cage as well as the lid should be such that no access is possible to the drum of basket when the lid is closed.

(2)Every centrifugal machine shall be provided with an efficient interlocking device that will effectively prevent the lid referred to in sub-paragraph (1) from being opened while the drum or basket in motion and prevent the drum or basket being set in motion while the lid is in the open position.

4. Braking arrangement. Every centrifugal machine shall be provided with an effective braking arrangement capable of bringing the drum or basket to rest within as short a period of time as reasonably practicable after the power is cut off.

5. Operating Speed. No centrifugal machine shall be operated at a speed in excess of the manufacturers rating which shall be legibly stamped at easily visible places both on the inside of the basket and on the outside of the machine casing.

6. Exceptions. Sub-paragraph (2) of paragraph 3, paragraphs 4 and 5 shall not apply in case of top lung machines or similar machines used in the sugar manufacturing industry.

VI

Power Press

1. Application. The schedule shall apply to all types of power presses including press brakes, except when used for working hot metal.

2. Definition. For the purpose of this Schedule

(a)"approved" means approved by the Chief Inspector:(b)"fixed fencing" means fencing provided for the tools of a power press being fencing which has no moving part associated with or dependent upon the mechanism of a power and includes that part of a closed tool which acts as a guard:(c)"Power press" means a machine used in metal or other industries for molding, pressing, blanking, raising, drawing and similar purposes:(d)"safety device" means the fencing and any other safeguard provided for the tools of a power press.

3. Starting and stopping mechanism. The starting and stopping mechanism shall be provided with safety stop so as to prevent over running of the press or descent of the ram during tool setting etc.

4. Protection of tool and die. (1) Each press shall be provided with a fixed guard with a slip plate on the underside enclosing the front and all sides of the tool.

(2)Each die shall be provided with a fixed guard surrounding its front and sides, and extending to the back in the form of a tunnel through which the pressed article falls to the rear of the press.(3)The design, construction and mutual position of the guards referred to in (1) and (2) shall be such as to preclude the possibility of the workers hand or fingers reaching the danger zone.(4)The machine shall be fed through a small aperture at the bottom of the die guard, but a wider aperture may be permitted for second or subsequent operations if feeding is done through a chute.(5)Notwithstanding anything contained in sub-clauses (1) and (2) an automatic or an inter-locked guards may be used in place of a fixed guard, but where such guards are used they shall be maintained in an efficient working condition and if any guard develops a defect, the power press shall not be operated unless the defect of the guard is removed.

5. Appointment of persons to Prepare power presses for use. (1) Except as provided in sub-paragraph (4), no person shall set, reset, adjust or try out the tools on a power press or install or adjust any safety device thereon, being installation or adjustment preparatory to production of die proving, or carry out an inspection and test of any safety device thereon required by paragraph 8 unless he

(a)has attained the age of eighteen;(b)has been trained in accordance with the sub-paragraph (2); and(c)has been appointed by the occupier of the factory to carry out these duties in respect of the class or description of power press or the class or description of safety device to which the power press or the safety devices (as the case may be) belongs; and the name of every such person shall be entered in a register in Form 9.(2)The training shall include suitable and sufficient practical instruction in the matters in relation to each type of power press and safety device in respect of which it is proposed to appoint the person being trained.

6. Examination and testing of power presses and safety devices. (1) No power press or safety device shall be taken into use in any factory for the first time in that factory, or in case of a safety device for the first time on any power press, unless it has been thoroughly examined and tested, in the case of a power press, after installation in the factory, or in the case of a safety device, when in position on the power press in connection with which it is to

be used.

(2)No power press shall be used unless it has been thoroughly examined and tested by a competent person within the immediately proceeding period of twelve months.(3)No power press shall be unless every safety device (other than fixed fencing) thereon has within the immediately proceeding period of six months when in position on that power press, been thoroughly examined and tested by a competent person.(4)The competent person carrying out an examination and test under the foregoing provisions shall make a report of the examination and test containing the following particulars and every such report shall be kept readily available for inspection:(a)name of the occupier of the factory:(b)address of the factory:(c)identification number or mark sufficient to identify the power press or the safety device:(d)date on which the power press or the safety device was first taken into use in the factory:(e)the date of each periodical thorough examination carried out as per requirements of sub-paragraph (2) above:(f)particulars of any defects affecting the safety working of the power press or the safety device found at any such thoroughly examination and steps taken to remedy such defects.

7. Defects disclosed during a thorough examination and tests. (1) Where any defect is disclosed in any power press or in any safety device by any examination and test under paragraph 6 and In the opinion of the competent person carrying out the examination and test, either

(a)the said defect is a cause of danger to workers and in consequence the power press in safety device (as the case may be) ought not to be used until the said defect has been remedied: or(b)the said defect may become a cause of danger to workers and in consequence the power press or safety device (as the case may be) ought not to be used after the expiration of a specified period unless the said defect has been remedied.Such defect shall, as soon as possible after the completion of the examination and test, be notified in writing by the competent person to the occupier of the factory and, in the case of a defect falling within clause (b) of this sub-paragraph such notification shall include the period within which, in the opinion of the competent person, the defect ought to be remedied.(2)In every case where notification has been given under this paragraph, a copy of the report made under paragraph 6 (4) shall be sent by the competent person to the inspector for the area within fourteen days of the completion of the examination and test.(3)Where any such defect is notified to the occupier in accordance with the foregoing provisions of this paragraph the power press or safety device (as the case may be) having the said defect shall not bet used:-(a)in the case of a defect falling within clause (a) of sub-paragraph (1). until the said defect has been remedied: and(b)in the case of defect falling within clause (b) of sub- para-graph (1), after the expiration of the said defect has been remedied.(4)As soon as is practicable after any defect of which notification has been given under sub-paragraph (1) has been remedied, a record shall be made by or on behalf of the occupier stating the measures by which and the date on which the defect was remedied.

8. Inspection and test of safety devices. (1) No power press shall be used after setting, resetting or adjustment of the tools there on unless a person appointed or authorised for the purpose under paragraph 5 has inspected and tested every safety device thereon while it is in position on the said power press:

Provided that an inspection, test and certificate as aforesaid, shall not be required where any adjustment of the tools has not caused or resulted in any alteration to or disturbance of any safety device on the power press and if, after the adjustment of the tools, the Safety devices remain, in the opinion of such as a person as aforesaid; in efficient working order.(2)Every power press and every safety devices thereon while it is in position on the said power press shall be inspected and tested by a trained person everyday.

9. Defect disclosed during an inspection and test. (1) Where it appears to any person as a result of any inspection and test carried out by him under paragraph 8 that any necessary safety device is not in position or is not properly in position on a power press or that any safety device which is in position on a power press is not in his opinion suitable, he shall notify the manager forthwith:

(2)Except as provided in sub-paragraph (3) where any defect is disclosed in a safety device by any inspection and test under para-graph 8, the person carrying out the inspection, and test shall notify the manager forthwith.(3)Where any defect in a safety device is the subject of a notification in writing under paragraph 7 by virtue of which the use of the safety device may be continued during a specified period without the said defect having been remedied, the requirement in sub-paragraph (2) of this paragraph shall not apply the said defect until the said period has expired.

10. Identification of power presses and safety devices. For the purpose of identification every power press and every safety device provided for the same shall be distinctively and plainly marked.

11. Training and instructions to operators. The operators shall be trained and instructed in the safe method of work before starting work on any power press.

12. Exemptions. (1) If in respect of any factory, the Chief Inspector is satisfied that owing to the circumstances or in frequency of the processes or for any other reason, all or any of the provisions of this Schedule are not necessary for the protection of the workers employed in any power press or any class or description of power press or in the factory the Chief Inspector

may by a certificate in writing (which he may in his description revoke at any time), exempt such factory from all or any of such provisions subject to such conditions if any as he may specify therein.

(2)Where such exemption is granted, a legible copy of the certificate, showing the condition (if any) subject to which it has been granted shall be kept posted in the factory in a position where it may be conveniently read by the persons employed.

VII

Shears, Slitters and Guillotine Machines.

1. Definition. For the purpose of this Schedule :

(a)"Guillotines" means a machine ordinarily equipped with straight, bevel-edged blade operating vertically against a stationary resisting edge and used for cutting metallic or non- metallic substances;(b)"Shears" or "Shearing machine" means a machine ordinarily equipped with straight bevel-edged blades operating vertically against resisting edges, or with rotary, overlapping cutting wheels, and used for shearing metals or non-metallic substances:(c)"Slitter" or "Slitting machine" means a machine ordinarily equipped with circular disctype knives, and used for trimming or cutting into metal or non-metallic substances or for slitting them into narrow strips; for the purpose of this schedule, this term includes bread or other food slices equipped with rotary knives or cutting discs.

2. Guilloting and shears. (1) Where practicable, a barrier metal guard of adequate strength shall be provided at the front of the knife, fastesed to the machine frame and shall be so fixed as would prevent any part of the operator's body to reach the descending blade from above below or through the barrier guard or from the sides:

Provided that in case of machines used in the Paper Printing and allied industries, where a fixed barrier metal guard is not suitable on account of the height and volume of the material being fed, there shall be provided suitable starting devices which require simultaneous action of both the hands of the operator or an automatic device which will remove both the hands of the operator from the danger zone at every descent of the blade.(2)At the back end of such machines, an inclined guard shall be provided over which the slit pieces would slide and be collected at safe distance in a manner as would prevent a person at the hack from reaching the descending blade.(3)Power-driven guillotine cutters, except continuous feed trimmers, shall be equipped with (a)Starting devices which require the simultaneous action of both hands to start the cutting motion and of at least one hand on a control during the complete stroke of the knife; or(b)an automatic guard which will remove the hands of the operator from the danger zone at every descent of the blade, used in conjunction with one hand starting devices which require two distinct movements of the device to start the cutting motion, and so designed as to return positively to the non-starting position after

each complete cycle of the knife.(4)Where two or more workers are employed at the same time on the same power-driven guillotine cutter equipped with two-hand control, the device shall be so arranged that each workers shall be required to use both hands simultaneously on the safety trip to start the cutting motion, and at least one hand on a control to complete the cut.(5)Power driven guillotine cutters, other than continuous trimmer, shall be provided, in addition to the brake or other stopping mechanism, with an emergency device which will prevent the machine from operating in the event of failure of the brake when the starting mechanism is in the non-starting position.

3. Slitting Machines. (1) Circular disc-type knives on machines for cutting metal and leather, paper, rubber, textiles, or other nonmetallic substances, shall, if within reach of operators standing on the floor or working level, be provided with guards enclosing the knife edges at all times at near as practicable to the surface of the material, and which may either.

(a)automatically adjust themselves to that thickness of the material: or(b)be fixed or manually adjusted so that the space between the bottom of the guard and the material will not exceed 6 mm (1/ 4 In.) at any time.(2)Portions of blades underneath the tables or benches of slitting machine shall be covered by guards.

4. Index cutters and vertical paper slotters. Index cutters, and other machines for cutting strips from the ends of books, and for similar operations, shall be provided with fixed guards. so arranged that the fingers of the operators cannot come between the blades and the tables.

5. Corner cutter. Corner cutters, used in the manufacture of paper boxes, shall be equipped with

(a)Suitable guard, fastened to the machines in front of the knives and provided with slots or perforations to afford visibility of the operations; or(b)Other guards equally efficient for the protection of the fingers of the workers.

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

Rules prescribed under sub-section (1) of Section 22

54. [Register of specially trained adult workers. In every factory a register shall be maintained in Form No.8 in which the names and other particulars of every such worker as may be employed or required to perform the duties specified in sub- section (1) of Section 21 shall be entered].

[Substituted by No. 1 dated 24.3.1979.]

54A. Tight fitting clothing. A worker required to wear tight fitting clothing under sub-section (1) of section 22 shall be provided by the occupier with such clothing which shall consist of at least a pair of closely fitting shirts and a closely fitting half sleeve shirt or vest. Such clothing shall be returned to the occupier on termination of service or when new clothing is provide.

Rule prescribed under Section 41

55. Bells etc. to be regularly examined. All belts shall be regularly examined to ensure the joints are safe and the belts at proper tension.

Rule prescribed under sub-section (2) of Section 23

56. [Employment of young persons on dangerous machines. The machines specified in sections 28, 29 & 30 and the machines mentioned below shall be deemed to be of such dangerous character that young persons shall not work at them unless the provisions of Section 23(i) are complied with:

Power presses other than hydraulic presses:Milling machines used in the metal trades:Circular saws:Platen printing machines:Guillotine machines] [Substituted by No. 1, dated 24.3.1979.].Exemption under sub-section (4) of section 28

57.

Exemption of certain hoists and lifts. (1) A register shall be opened with the following columns to record particulars of examination of hoists and lifts: (1)Date of examination.(2)No. of hoists and lifts, if more than one.(3)The details of tests made.(4)Results of examination.(5)Signature of examiner.(6)Designation and qualification of the examiner.(2)In pursuance of the provision of sub-section (4) of section 28, in respect of any class or description of hoist or lift specified in the first column of the following Schedule, the requirements of the section 28 specified in the second column of the said Schedule and set opposite to that class or description of hoist or lift shall not apply.

Schedule 10

Class or description of hoists or lift	Requirements which shall not apply
Hoists or lifts mainly used for raising materials for chargingblast furnaces or lime kilns.	Sub-section (1)(b) in so far4 as it requires a gate at thebottom landing sub-section (1)(d); sub-section (1)(e).
Hoists not connected with mechanical power and which are notused for carrying persons.	Sub-section (1)(b) in so for as it requires the hoist way orlift way enclosure to be so constructed, as to prevent any personor thing from being trapped between any part of the hoist or liftand any fixed structure or moving part;subsection (1)(e).

57A. - (1) No. lifting machine and no chain. rope or lifting tackle, except a fiber rope or fiber rope sling, shall be taken in use in any factory for the first time in that factory unless it has been tested, and all parts have been thoroughly examined by a competent person and a certificate of such test and examination specifying the safe working load or loads and signed by the person making the test and the examination, has been obtained and is available for inspection.

(2)(a)Every jib-crane so constructed that the safe working load may be varied by the raising or lowering of the jib, shall have attached thereto either an automatic indicator of safe working loads, or an automatic jib, angle indicator and a table indicating the safe working loads at corresponding inclination of the jib or corresponding radii of the load.(b)A table showing the same working load of every kind and size of chain. rope or lifting tackle in use, and in the case of multiple sling, the safe working loads at different angles of the legs, shall be posted in the store room or place where or in which the chains, ropes of lifting tackles are kept, and prominent positions on the premises and no rope, chain or lifting tackle not shown in the table shall be used.The foregoing provisions of this paragraph shall not apply in respect of such lifting tackle, if the safe working load thereof, or in the case of a multiple sling, the safe working load at different angles of the legs, is plainly marked upon it.(3)Register to be maintained under sub-clause (iii) of clause (a) of sub-section (1) of section 29 of the Act, shall contain the following particulars (i)name of occupier of factory,(ii)address of the factory,(iii)distinguishing number of mark, if any, and description sufficient to identify the lifting machine, chain, rope or the lifting tackle,(iv)date when the lifting machine, chain, rope or lifting tackle was first taken in use in the factory,(v)date and number of the certificates relating to any test or examination made under sub-rules (1) and (7) together with the name and address of the person who issued the certificates,(vi)date of each periodical thorough examination made under clause (a)(iii) of sub-section (1) of section 29 of the Act and sub-rule (6) and by whom it was carried out.(vii)date of annealing or other heat treatment of the chain and other lifting tackle made under sub-rule (6) and by whom it was carried out, and(viii)particulars of any defects affecting the safe working load found at any such examination or after annealing and of the steps taken to remedy such defects.The register shall be kept readily available for inspection.(4)All rails on which a

travelling crane moves and every track on which the carriage of a transporter or runway moves, shall be of proper size and adequate strength and have an even running surface and every such rail or track shall be properly laid, adequately supported and properly maintained.(5)To provide access to rail tracks or over head travelling cranes, suitable passage ways, of at least 50 cm. (20 inches) width with toe-boards and double hand rails 90 cm. (3 ft.) high, shall be provided alongside, and clear of the rail tracts of over head travelling [floor operated cranes where rail height is more than [24 feet] [Inserted by No. 2 dated 27.2.1985 [1.4.85]] or all cabin operated travelling] cranes, such that no moving part of the crane can strike persons on the ways and the passage way shall be at a lower level than the crane track itself. Safe access ladders shall be provided at suitable intervals to afford access to these passage ways and from passage ways to the rail tracks.(6)All chains and lifting tackle, except a rope sling shall, unless they have subjected to such other heat treatment, as may be approved by Chief Inspector of Factories be effectively annealed under the supervision of a competent person at the following intervals: (i)all chains, slings, rings, hooks, shackles, swivels used in connection with molten metal or molten slag or when they are made of I /2inch bar or smaller, once at least in every six months,(ii)all other chains, rings, hooks, shackles and swivels in general use, once at least in every twelve months:Provided that chains and lifting tackle not in frequent use, shall subject to the Chief Inspector's approval, be annealed only when necessary. Particulars of such annealing shall be entered in a register prescribed under sub-rule (3).(7)Nothing in the foregoing sub-rule (6), shall apply to the following classes of chains and lifting tackles -(i)chain made of malleable cast iron,(ii)plate link chains,(iii)chains, rings, hooks, shackles and swivels made of steel or of any non-ferrous metal,(iv)pitched chains, working on sprocket or packeted wheels,(v)rings, hooks, shackles and swivels permanently attached to pitched chains, pulley blocks of weighing machines,(vi)hooks and swivels having screw threaded parts or ball-bearing or other case hardened parts,(vii)socket, shackles secured to wire ropes by white metal capping, and(viii)Bordeaux connections.Such chains and lifting tackles shall be thoroughly examined by competent person, once at least in every twelve months, and particulars entered in the register kept in accordance with sub-rule (3).(8)All lifting machines, chain, ropes and lifting tackle, except a fiber rope or fiber rope sling which have been lengthened, altered or repaired by welding or otherwise, shall before being again taken in use, be adequately re-tested and re-examined by a competent person and a certificate of such test and examination be obtained and particulars entered into register kept in accordance with sub-rule (3).(9)No person under 18 years of age and no person who is not sufficiently trained in the working of lifting machines and acquainted with the hazards of the machine, shall be employed as driver of a lifting machine, whether driven by mechanical power or otherwise, or to give signal to a driver.(10)Where, in the opinion of the State Government, compliance with any of the requirement of the provisions contained in section 29 of the rules made thereunder, is unnecessary or impracticable, the State Government may, by notification in the Official Gazette, and subject to such conditions, as it may deem expedient, exempt any factory or a group or class or description of factories from any such provision.Pressure PlantRules prescribed under sub-section (2) of section 31.

58. [(1) Definition] [Substituted by No. 1 dated 24.3.1979.]. - In this rule:

(a)"Design pressure" means the maximum pressure that a pressure vessel or plaint is designed to withstand safely when operating normally:(b)"Maximum permissible working pressure" is the

maximum pressure at which a pressure vessel or plant is permitted to be operated or used under this rule and is determined by the technical requirement of the process:(c)"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:(d)"Pressure Vessel" means [fired and] [Inserted by No.3, dated 27.7..1987.] an unfired 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 pipeline fitting or other equipment attached thereto or used in connection therewith: and(e)"Competent person" means a person who is, in the opinion of the Chief Inspector, capable by virtue of his qualifications, training and experience, of conducting a thorough examination and pressure tests, as required, on a pressure vessel or plant, and of making a full report on its condition.(2)Exceptions. Nothing in this rule shall apply to: (a)[x x x] [Omitted by No. 3, dated 27.7.1987.](b)Vessels made of ferrous materials having an internal operating pressure not exceeding 1 kg/cm:(c)Steam boilers, steam and feed pipes and their fittings coming under the purview of Indian Boilers Act, 1923 (V of 1923):(d)[x x x] [Omitted by No. 3, dated 27.7.1987.](e)Vessels in which internal pressure is due solely to the static head of liquid;(f)Vessels with a nominal water capacity not exceeding 500 litres connected in a water pumping system containing air that is compressed to serve as a custion;(g)Vessels for nuclear energy application; and(h)[x x x] [Omitted by No. 3, dated 27.7.1987.](i)Working cylinders of steam engines or prime movers, feed pumps and steam traps: turbine casings; compressor cylinders; steam separators or dryers; steam strainers; steam de-super heaters: oil separators; air receivers for fire sprinkler installations: air receivers of monotype machine provided the maximum working pressure of the air receiver does not exceed 1.33 kg. /cm2 and the capacity 85 liters; air receivers of electrical circuit breakers: air receivers of electrical relays, air vessels on pumps, pipe coils accessories of instruments and appliances, such as cylinders and piston assemblies used for operating relays and interlocking type of guards; vessels with liquids subjected to static head only; and hydraulically operating cylinders other than any cylinder communicating with an air loaded accumulator.(3)Design and construction. Every pressure vessel or plant used in a factory (a)shall be properly designed on sound engineering practice;(b)shall be of good construction, sound material, adequate strength and free from any patent defects: and(c)shall be properly maintained in a safe condition provided that the pressure vessel or plant in respect of the design and construction of which there is an Indian standard or a standard of the country of manufacture or any other law or regulation in force, shall be designed and constructed in accordance with said standard, law or regulation, as the case may be, and a certificate thereof shall be obtained from the manufacturer or from the competent person which shall be kept and produced on demand by an Inspector.(4)Safety devices. Every pressure vessel shall be fitted with (a)a suitable safety valve or other effective pressure relieving device of adequate capacity to ensure that the maximum permissible working pressure of the pressure vessel shall not be exceeded. It shall be set to operate at pressure not exceeding the maximum permissible working pressure and when more than one protective device is provided, only one of the devices need be set to operate at the maximum permissible working pressure and the additional device shall be set to discharge at a pressure not more than 5 per cent in excess of the maximum permissible working pressure;(b)a suitable pressure guage with a dial range not less than 1.5 times the maximum permissible working pressure, easily visible and designed to show at all times the correct internal pressure and marked with a prominent red mark at the maximum permissible working pressure of the pressure

vessel;(c)a suitable nipple and globe valve connected for the exclusive purpose of attaching a test pressure guage for checking the accuracy of the pressure guage referred to in clause (b) of this sub-rule;(d)a suitable stop valve or valves by which the pressure vessel may be isolated from other pressure vessels or plant or source of supply of pressure. Such a stop valve or valves shall be located as close to the pressure vessel as possible and shall be easily accessible; and(e)a suitable drain cock or valve at the lowest part of the pressure vessel for the discharge of the liquid or other substances, that may collect in the pressure vessel:Provided that it shall be sufficient for the purpose of this sub-rule if the safety valve or pressure releasing device: the pressure guage and the stop valve are mounted on a pipe line immediately adjacent to the pressure vessel and where there is a range of two or more similar pressure vessels served by the same pressure lead, only one set of such mounting need be fitted on the pressure lead immediately adjacent to the range of pressure vessels, provided they cannot be isolated.(5)Pressure reducing devices:(a)every pressure vessel which is designed for a working pressure less than the pressure at the source of supply, or less than the pressure which can be obtained in the pipe connecting the pressure vessel with any other source of supply, shall be fitting with a suitable pressure reducing valve or other suitable automatic device to prevent the maximum permissible working pressure of the pressure vessel being exceeded;(b)To further protect the pressure vessel in the event of failure of the reducing valve or device, at least one safety valve having a capacity sufficient to release all the steam, vapour or gas without undue pressure rise as determined by the pressure at the source of supply and the size of the pipe connecting the source of supply shall be fitted on the low pressure side of the reducing valve.(6)Pressure Vessel or plant being taken into use:(a)No new pressure vessel or plant shall be taken into use in a factory after coming into force of this rule unless it has been hydrostatically tested by a competent person at a pressure at least 1.3 time the design pressure, and no pressure vessel or plant which has been previously used or has remained isolated or idle for a period exceeding 2 months or which has undergone alterations or repairs shall be taken into use in a factory unless it has been thoroughly examined by a competent person externally and internally, if practicable and has been hydrostatically tested by the competent person at a pressure which shall be 1.5 times the maximum permissible working pressure, provided, however, that the pressure vessel or plant which is so designed and constructed that it cannot be safely filled with water or liquid or is used in service even some traces of water cannot be tolerated, shall be pneumatically tested at a pressure not less than the design pressure or the maximum permissible working pressure as the case may be:Provided further that the pressure vessel or plant which is linked with glass shall be tested hydrostatically or pneumatically as required at a pressure not less than the design pressure or maximum permissible working pressure as the case may be. Design pressure shall be not less than the maximum permissible working pressure and shall be taken into account the possible fluctuations of pressure during actual operation.(b)No pressure vessel or plant shall be used in a factory unless there has been obtained from the maker of the pressure vessel or plant or from the competent person a certificate specifying the design pressure or maximum permissible working pressure thereof, and stating the nature of tests to which the pressure vessel or plant and its fittings (if any) have been subjected, and every pressure vessel or plant so used in a factory shall be marked so as to enable it to be identified as to be the pressure vessel or plant to which the certificate relates and the certificate shall be kept available for perusal by the Inspector.(c)No pressure vessel or plant shall be permitted to be operated or used at a pressure higher than its design pressure or maximum permissible working pressure as shown in the certificate.(7)In service test and examinations. Every

pressure vessel or plant in service shall be thoroughly examined by a competent person (a)externally, once in every period of six months;(b)internally, once in every period of twelve months;If by reason of the construction of a pressure vessel or plant, a thorough internal examination is not possible this examination may be replaced by a hydrostatic test which shall be carried out once in every period of two years:Provided that for a pressure vessel or plant in continuous process which cannot be frequently opened, the period of internal examination may be extended to four years;(c)hydrostatically tested once in every period of four years: and(d)The hydrostatic pressure to be carried out for the purpose of this rule shall be 1.25 times the design pressure or 1.5 times the maximum permissible working pressure whichever is less:Provided that in respect of a pressure vessel or plant with thin walls, such as ceasing cylinder made of copper or any other nonferrous metal, periodic hydrostatic test may be dispensed with subject to the condition that the requirements laid down in sub- rule (8) are fulfilled:Provided further that when it is impracticable to carry out thorough external examination of any pressure vessel or plant every six months as required in clause (a) of this sub-rule, or if owing to its construction and use a pressure vessel or plant cannot be hydrostatically tested as required in clauses (b) and (c) of this sub-rule, a thorough external examination of the pressure vessel or plant shall be carried out at least once in every period of two years, and at least once in every period of four years a thorough systematic non-destructive test like ultrasonic test for metal thickness or other defects of all parts, the failure of which might lead to eventual rupture of the pressure vessel or plant shall be carried out.(8)Thin walled pressure vessel or plant:(a)(i)As far as possible, in respect of every sizing cylinder of which shall be made of copper sheet or any other non-ferrous material, the Manager shall make available to the Inspector and the competent person examining such cylinders, information to show the date on which such cylinder was taken into use for the first time with full particulars as to the thickness of the shell when so taken into use in the factory. Information shall also be made available as to the safe working pressure, recommended by the manufacturers when such cylinder is taken into use for the first time in the factory.(ii)If no information as aforesaid in the foregoing sub-rule is available, any other evidence relevant to show the age of the cylinder shall be submitted by the Manager. The Chief Inspector shall determine the age of the cylinder on such documentary evidence or other oral evidence that may be presented to him by Manager or any other evidence that may be produced by an Inspector, and the age so determined shall be considered as the age of the cylinder for the purposes of this rule.(b)(i)The minimum thickness of the shell of a sizing cylinder shall be actually measured as and when possible.(ii)If during its working life the shell of a sizing cylinder is at any time punctured requiring repairs to the cylinder to close the punctured portion, the thickness of the sheet of the shell near such puncture of opening shall be measured by a competent person and the record maintained in Form 9.(c)(i)No sizing cylinder shall be subjected to a working pressure greater than the safe working pressure recommended by the manufacturers of such cylinder at the time when such cylinder was first taken into use 11;1 a factory.(ii)The safe working pressure of a sizing cylinder which has been in use for more than five years shall be calculated in accordance with the following three methods and the lowest figure obtained by any of the three methods shall be considered as safe working pressure of a sizing cylinder: (1)The safe working pressure of the sizing cylinder shall be the same proportion to the original safe working pressure when first taken into use as the minimum thickness of the shell material as actually measured at any time bears to the original thickness of the shell material when first taken into use; or(2)The safe working pressure of a sizing cylinder shall be calculated on the basis of the minimum thickness actually measured so that

the tensile stress in the shell shall not exceed safe working stress for the material of the shell. If shell is made of copper, safe working tensile stress shall be taken to be not more than 350 kgms. per square/cm: or(3)The same working pressure of a sizing cylinder shall be reduced at the rate of 5 per cent of the original working pressure for every year of its use after the first five years.(d)No sizing cylinder shall be continued to be used for more than 20 years after it was first taken into use: provided further that the Chief Inspector of Factories may authorise the use of sizing cylinders after a period of twenty years up to a further period of not more than five years if tests are carried out and further details are made available to his satisfaction to indicate that the cylinder can be used with safety.(e)An Inspector may by an order in writing direct the Manager to produce within time specified in such an order a report of examination of a sizing cylinder in Form 9 by a competent person.(9)Report by competent person:(a)If during any examination any doubt arises as to the ability of the pressure vessel or plant to work safely until the next prescribed examination, the competent person shall enter in the prescribed register his observations, findings and conclusions with other relevant remarks with reasons and may authorise the pressure vessel or plant to be used and kept in operation subject to a lowering of maximum permissible working pressure or to more frequent or special examination or tests, or subject to both of these conditions.(b)A report of the result of every examination or test carried out shall be completed in the prescribed Form No.9 and shall be signed by the person making the examination or test, and shall be kept available for perusal by the Inspector at all hours when the factory or any part thereof is working.(c)Where the report of any examination under this rule specified any condition for securing the safe working of any pressure vessel or plant, the pressure vessel or plant shall not be used unless the specified conditions are fulfilled.(d)The competent person making report of any examination under this rule, shall within seven days of the completion of the examination, send to the Inspector a copy of the report in every case where the maximum permissible working pressure is reduced or the examination shows that the pressure vessel or plant or any part thereof, cannot continue to be used with safety unless certain repairs are carried out or unless any other safety measure is taken.(10)Application of other law:(a)The requirements of this rule shall be in addition to and without any prejudice to and not in derogation of the requirement of any other law in force.(b)Certificates or reports of any examination or test of any pressure vessel or plant to which sub-rule (7) to (9) do not apply conducted or required to be conduced under any other law in force and other relevant record relating to such pressure vessel or plant, shall be properly maintained as required under the said law and shall be produced on demand by the Inspector.

58A. - (1) For the purpose of this rule, the expression "gas-holder" means a water-sealed gas-holder which has a storage capacity of not less than 141.5 cubic meters (500 C.ft.).

(2)Every gasholder shall be of adequate material and strength, sound construction and properly maintained.(3)Where there is more than one gasholder in the factory, every such 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 of which any lift has been in use for more than ten years. the internal state of sheeting shall, within one year of the coming into operation of these rules, and thereafter at least after every period of four years, be examined by a competent person by means of

electronic or other accurate devices:Provided that if the Chief Inspector is satisfied that such electronic or other accurate devices are not available, he may permit the cutting of samples from the crown and the sides of the holder:Provided further that if the above inspection raises a doubt, an internal visual examination shall be made.(6)All possible steps shall be taken to prevent or minimise ingress of impurities in the gasholder.(7)No gasholder shall be repaired or demolished except under the direct supervision of 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) above, shall be kept readily available for inspection.(b)A permanent register in Form 9-A duly signed by the occupier or manager shall be maintained giving the following particulars(i)the serial number of gasholder vide sub-rule (3) above and the particulars of manufacture i.e. makers name, date of manufacture, capacity, number of lifts, pressure thrown by holder when full of gas:(ii)the dates of inspection carried out as required under sub-rules (4) and (5) above and by whom carried out:(iii)the method of inspection used:(iv)date of painting. etc.(v)nature of repairs and name of person carrying out repairs; and(vi)remarks.(c)The results of examinations by a competent person carried out under sub-rules (4) and (5) shall be entered in Form No. 9-B.(d)A copy of the report in Form B shall be kept in the said register and both the register and the report shall be readily available for inspection.Rule prescribed under sub-section (2) of section 34

59. Excessive weights. (1) No person, unaided by another person, or mechanical aid, be required or allowed to lift, put down, carry or move any load of material, article, tools or appliance exceeding the maximum limit in weight as set out in the following schedule:

[Schedule

Persons	Maximum weight of material, article, tool orappliance
(a) Adult male	50 Kilograms
(b) Adult female	30 Kilograms
(c) Young person (Male 15-18 years)	30 Kilograms
(d) Young persons(Female 15-18years)	20 Kilograms
(e) Young person (Male 14-15years)	16 Kilograms
(e) Young person (Female 14-15years)	14 Kilograms]

[Substituted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002]](2)No woman or young person shall engage, in conjunction with others, in lifting, carrying or moving any material, article, tool or appliance, if the weight thereof exceeds the lowest weight fixed by the Schedule to sub-rule (1) for any of the person engaged, multiplied by the number of the persons engaged.(3)Taking into account all conditions in which the work is to be performed, no worker shall be required or permitted to engage in the manual transport of load which, by reasons of its weight, is likely to jeopardize his health or safety.(4)Wherever reasonably practicable, suitable technical devices shall be used for the manual transport of loads.(5)Notwithstanding the fact that workers are engaged in the regular,

manual transport of loads, within the permissible limits as set out in sub-rule (1) they should be subjected to medical examination prior to regular assignment and periodical examination at an interval of 12 months if the assignment of such jobs, exceeds more than 12 months.Explanation: for the purpose of this rule (a)the term "manual transport of loads" means any transport in which the weight of the load is wholly borne by one worker, it covers the lifting and putting down of loads.(b)the term "regular manual transport of loads" means any activity which is continuously or principally devoted to the manual transport of loads, or which normally included, even though intermittently, the manual transport of loads.]Rule prescribed under section 35

60. Protection of Eyes. Effective screens or suitable goggles shall be provided for the protection of persons employed in or in the immediate vicinity of the following processes

(a)The processes specified in Schedule I annexed hereto, being processes which involve risk of injury to the eyes from particles or fragments thrown of in the course of the processes.(b)The processes specified in Schedule II annexed hereto, being processes which involve risk of injury to the eyes by reason of exposure to excessive light.

I

1. Breaking, cutting, dressing or carving of bricks, stone, concrete, slag or similar materials by means of a hammer, a chisel, pick or similar hand tool, or by means of a portable tool driven by mechanical power, and the dry grinding or surfaces of any such materials, by means of a wheel or disc driven by mechanical power, wherein any of the foregoing cases particulars or fragments are liable to be thrown off towards the face of the operator in the course of the process.

2. Dry grinding of surfaces of metal by applying them by hand to a wheel, disc or hand driven by mechanical power, and of surfaces of metal by means of a portable tool driven by mechanical power.

3. Dividing into separate parts of metal, bricks, stone, concrete or similar materials by means of a high speed of saw driven by mechanical power or by means of an abrasive cutting off wheel or disc driven by mechanical power.

4. Turning of metals, or articles of metal, where particles or fragments are liable to be thrown off towards the face of the operator in the course of the process.

5. Drilling by means of portable tools, where particles or fragments are liable to be thrown off towards the face of the operator in the course of the process.

6. Welding and cutting of metals by means of an electric, oxyacetylene or similar process.

7. Hot fettling of steel castings by means of a flux injected burner or air torch, and the de-seaming of metals.

8. Fettling of metal castings. involving the removal of metal, including runners,. gates and risers, and the removal of any other material during the course of such fettling.

9. Chipping of metal and the chipping, knocking out, cutting out or cutting off of cold rivers, bolts, nuts, lugs, pins, collars or similar articles form any structure or plant. or from part of any structure or plant by means of a hammer, chisel, punch or similar hand tool, or by means of a portable tool driven by mechanical power.

10. Chipping or scuffing of paint, scale, slag, rust or other corrosion from the surface of metal and other hard materials by means of a hand tool or by a portable tool driven by mechanical power.

11. Breaking of scrap metal by means of a hammer or by means of a tool driven by mechanical power.

12. Routing of metal, where particles or fragments are liable to be thrown off towards the face of the operator in the course of the process.

13. Work with drop hammers and power hammers used in either case for the manufacture of forgings, and work by any person not working with such hammers whose work is carried on in such circumstances and in such a position that particles or fragments are liable to be thrown off towards his face during work with drop hammers or power hammers.

14. Work at a furnace where there is risk to the eyes from molten metal.

15. Pouring or skimming of molten metal.

16. Work involving risk to the eyes from hot sand being thrown off.

17. Truing or dressing of an abrasive wheel.

18. Handling in open vessels or manipulation of strong acids or dangerous corrosive liquids or materials and the operation, maintenance or dismantling of plant or any part of plant, being plant or part of plant which contains or has contained such acids, liquids or materials, unless the plant or part of plant has been so prepared (by isolation, reduction of pressure, or otherwise), treated or designed and constructed as to prevent risk of injury.

19. Any other process wherein there is a risk of injury to eyes from particles or fragments thrown off during the course of the process.

II

Welding or cutting of metals by means of an electrical oxyacetylene or similar process.All work on furnaces where there is risk of exposure to excessive light.Rule prescribed under sub-section (6) of section 36

61. Minimum dimensions of manholes. Every chamber, tank, vat, pipe, flue or other confined space, which persons may have to enter and which may contain dangerous fumes to such an extent as to involve risk of the persons being overcome thereby, shall unless there is other effective means of egress, by provided with a manhole which may be rectangular oval or circular in shape. and which shall

(a)in the case of rectangular or oval shape, be not less than [40 cms] [Substituted by No. 1 dated 24.3.1979.] long and [30 cms] [Substituted by No. 1 dated 24.3.1979.] wide:(b)in the case of a circular shape, be not less than [40 cms] [Substituted by No. 1 dated 24.3.1979.] in diameter.Exemption under sub-section (5) of section 37

62. Exemptions. The requirements of sub-section (4) of section 37 shall not apply to the following processes, carried on in any factory:

(a)The operation of repairing a water sealed gas holder by the electric welding process, subject to the following conditions: (i)The gasholder 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 than air, used in their manufacture:Provided that this exemption shall not apply to any gasholder containing acetylene or mixture of gases to which acetylene has been added intentionally;(ii)Welding shall only be done by the electric welding process and shall be carried out by experienced operatives under the constant supervision of a competent person.(b)The operations of cutting or welding steel or wrought iron gas mains and services by the application of heat, subject to the following conditions : (i)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, gas, coke- oven gas, producer gas, blast furnace gas, or gases other than air, used in their manufacture;(ii)The main or service shall not contain acetylene or any gas or mixture of gases to which acetylene has been added intentionally;(iii)The operation shall be carried out by an experienced person or persons and at least 2 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;(iv)The site of the operation shall be free from any inflammable or explosive gas or vapour;(v)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 cylinder; and(vi)Prior to the application of any flame to the gas main or service, this shall be pierced or drilled and the escaping gas ignited.(c)The operation of repairing an oil tank on any ship by the electric welding process shall be subject to the following conditions: (i)The only oil contained in the tank shall have a flash point of not less than 150 degree F. (close test) and a certificate to this effect shall be obtained from a competent analyst;(ii)The analyst's certificate shall be kept available for inspection by an Inspector, or by any person employed or working on the ship;(iii)The welding operation shall be carried out only on the exterior surface of the tank at a place (a) which is free from oil or oil leakage in inflammable quantities and (b) which is not less than one foot below the nearest part of the surface of the oil within the tank; and(iv)Welding shall be done only by the electric welding and shall be carded out be experienced operatives under the constant supervision of a competent person.Rule prescribed under sub-section (1) of section 38

63. [Fire.] [Substituted by No.4, dated 8.1.1991[25-6-1992]]- (1) Processes, equipment, plant etc. involving serious explosion and serious fire hazards.- (a) All processes involving serious explosion and flash fire hazard shall be located in segregated building where the equipment shall be so arranged that only a minimum number of employees are exposed to such hazards at any one time.

(b)All industrial processes involving serious fire hazard should be located in building or work places separated from one another by walls of fire-resistant construction.(c)Equipment and plant involving serious fire or flash fire hazard shall, wherever possible, be so constructed and installed that in case of fire, they can be easily isolated.(d)Ventilation ducts, pneumatic conveners and similar equipment involving serious fire risk shall be provided with flame arresting or automatic fire extinguishing appliances.(e)In all work places having serious fire or flash fire hazards. passages, between machine.

installation or piles of material should be at least 90 cm. wide.(2)Access for firefighting. Buildings and Plants shall be so laid out and roads, passageways etc. so maintained as to permit unobstructed access for fire fighting.(3)Protection against lighting. Protection from lighting shall be provided for(i)building in which explosive or highly flammable substances are manufactured, used, handled or stored;(ii)Storage tanks containing oils, paints, or other flammable liquids;(iii)Gram elevators; and(iv)Building. tall chimneys or stacks where flammable gases, fumes, dust or lint are likely to be present.(4)Explosives. All explosives shall be handled, transported, stored and used in accordance with the provisions in the Indian Explosives Act, 1984.(5)Precautions against ignition. Wherever there is danger of fire or explosion from accumulation of flammable or explosive substances in air:-(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)Workers shall wear shoes without iron or steel nail or any other exposed ferrous material which is likely to cause sparks by friction;(d)Smoking, lighting or carrying of matches, lighters or smoking material shall be prohibited;(e)transmission belts with iron fasteners shall not be used and(f)all other precautions, as are reasonably practicable, shall be taken to prevent initiation of ignition from all other possible sources such as open flames, frictional sparks, overheated surfaces of machinery or plant, chemical or physical chemical reaction and radiant heat.(6)Spontaneous ignition. Where materials are likely to induce spontaneous ignition, care shall be taken to avoid formation of air pocket and to ensure adequate ventilation.(7)Cylinders containing compressed gas. Cylinders containing compressed gas may only be stored in open if they are protected against excessive variation of temperature, direct rays of sun, or continuous dampness. Such cylinders shall never be stored near highly flammable substances, furnaces or hot processes. The room where such cylinders are stored shall have adequate ventilation.(8)Storage of flammable liquids. (a) The quantity of flammable liquids in any work room shall be the minimum required for the process or processes carried on in such room. Flammable liquids shall be stored in suitable containers with close fitting covers:Provided that not more than 20 liters of flammable liquids having a flash point of 21°C or less shall be kept or stored in any work room.(b)Flammable liquids shall be stored in closed containers and in limited quantities in well ventilated rooms of fire resisting construction which are Isolated from the remaining of the building by fire walls and self closing fire doors.(c)Large quantities of such liquids shall be stored in isolated adequately ventilated building of fire resisting construction or in storage tanks, preferably underground and at a distance from any building as required in the petroleum Rules, 1976.(d)Effective steps shall be taken to prevent leakage of such liquids into basements, sumps or drains and to confine any escaping liquid within safe limits.(9)Accumulation of flammable dust, gas, fume or vapour in air or flammable waste material on the floors. (a) Effective steps shall be taken for removal or prevention of the accumulation in the air of flammable dusts, gas, fume or vapour to an extent which is likely to be dangerous.(b)No waste material of flammable nature shall be permitted to accumulate on the floors and shall be removed at least once in a day or shift, and more often, when possible: such materials shall be placed in suitable metal containers with covers wherever possible.(10)Fire exits (a) In this rule, (i)"horizontal exit" means an arrangement which allows alter-native egress from a floor area to another floor at or near the same level in an adjoining building or an adjoining part of the same building with adequate separation; and(ii)"travel distance" means the distance an occupant has to travel to reach an exit.(b)An exit may be a doorway. corridor, passageway to an internal or external

stairway or to a verandah. An exit may also include a horizontal exit leading to an adjoining building at the same level.(c)Lifts, escalators and revolving doors shall not be considered as exits for the purpose of this sub-rule.(d)In every room of a factory sufficient exits to permit safe escape of the occupants in case of fire or other emergency shall be provided which shall be free of any obstruction.(e)The exits shall be clearly visible and suitably illuminated with suitable arrangement, whatever artificial lighting is to be adopted for this purpose, to maintain the required illumination in case of failure of the normal source of electric supply.(f)The exits shall be marked in a language understood by the majority of the workers.(g)Fire resisting doors or roller shutters shall be provided at appropriate places along the escape routes to prevent spread of fire and smoke, particularly at the entrance of lifts or stairs where funnel or flue effect may be created inducing an upward spread of fire.(h)All exits shall provide continuous means of egress to the exterior of a building or to an exterior open space leading to a street.(i)Exits shall be so located that the travel distance on the floor shall not exceed 30 meters.(j)In case of those factories where highly hazardous materials are stored or used, the travel distance to the exit shall not exceed 22.5 meters and there shall be at least two ways of escape from every room, however small, except toilet rooms, so located that the points of access thereto are out of or suitably shielded from areas of high hazard.(k)Wherever fore than one exit is required for any room space or floor, exits shall be placed as remote from each other as possible and shall be arranged to provide direct access in separate directions from any point in the area served.(l)The unit of exit width used to measure capacity of any exit shall be 50 cm. A clear width of 25 cm, shall be counted as an additional half unit. Clear width of less than 25 cm. shall not be counted for exit width.(m)Occupants per unit width shall be 50 for stairs and 75 for doors.(n)For determining the exits required, the occupant load shall be reckoned on the basis of actual number of occupants within any floor area or 10 square metres per person, whichever is more.(o)There shall not be less than two exits serving every floor area above and below the ground floor, and at least one of them shall be an internal enclosed stairway.(p)For every building or structure used for storage only, and every section thereof considered separately, shall have access to at least one escape so arranged and located as to provide a suitable means of escape for any person employed therein and in any such room wherein more than 10 persons at least two separate means of exits shall be available as remote from each other as practicable.(q)Every storage area shall have access to at least one means of exit which can be readily opened.(r)Every exit doorway shall open into an enclosed stairway, a horizontal exit on a corridor or passageway providing continuous and protected means of egress.(s)No exit doorway shall be less than 100 cm. in width, doorway shall be not less than 200 cm. in height.(t)Exit doorways shall open outwards, that is, away from the room but shall not obstruct the travel along any exit. No door when opened shall reduce the required width of stairway or landing, to less than 90 cm. over head or sliding doors shall not be installed for this purpose.(u)An exit door shall not open immediately upon a flight of stairs. A landing equal to at least the width of the doorway shall be provided in the stairway at each doorway. The level of landing shall be the same as that of the floor which it serves.(v)The exit doorways shall be open able from the side which they serve without the use of a key.(w)Exit corridors and passageways shall be of a width not less than the aggregate required with of exit doorways leading from therein the direction of travel to the exterior.(x)Where stairways discharge through corridors and passageways, the height of the corridors and passageways shall not be less than 240(y)Internal stairs shall be constructed of non-combustible material throughout.(z)Internal stairs shall be constructed as a self contained unit with at least one side adjacent to an external wall and shall be completely

enclosed.(aa)A staircase shall not be arranged round a lift shaft unless the latter is totally enclosed by a material having a fire resistance rating not lower than that the type of construction of the former.(bb)Hollow combustible construction shall not be permitted.(cc)The minimum width of an internal staircase shall be 100 cm.(dd)The minimum width of treads without nosing shall be 25 cm. for internal staircase. The treads shall be constructed and maintained in a manner to prevent slipping.(ee)The maximum height of a riser shall be 19 cm. and the number or risers shall be limited to 12 per flight.(ff)Hand rails shall be provided with a minimum height of 100 cm. and shall be firmly supported.(gg)The use of spiral staircase shall be limited to low occupant load and to a building of height of 9 metres, unless they are connected to platforms such as balconies and terraces to allow escapes to pause. A spiral staircase shall be not less than 300 cm. in diameter and have adequate head room.(hh)The width of a horizontal exit shall be same as for the exit doorways.(ii)The horizontal exit shall be equipped with at least one fire door of self closing type.(jj)The floor area on the opposite or refuge side of a horizontal exit shall be sufficient to accommodate occupants of the floor areas served, allowing not less than 0.3 square meter per person. The refuge area shall be provided with exit adequate to meet the requirements of this sub-rule. At least one of the exits shall lead directly to the exterior or street.(kk)Where there is difference in level between connected areas for horizontal exit, ramps not more than I in 8 slopes shall be provided. For this purpose steps shall not be used.(ll)Doors in horizontal exits shall be open able at all times.(mm)Ramps with a slope of not more than 1 in 10 may be substituted for the requirement of staircase. For all slopes exceeding 1 in 10 and wherever the use in such as to involve danger of slipping, the ramp shall be surfaced with non slipping material.(nn)In any building not provided with automatic fire alarm a manual fire alarm system shall be provided if the total capacity of the building is over 500 persons, or if more than 25 persons are employed above or below the ground floor, except that no manual fire alarm shall be required in one story buildings where the entire area is undivided and all parts thereof are clearly visible to all occupants.(11)First-aid fire fighting arrangements. (a) In every factory there shall be provided and maintained adequate and suitable fire fighting equipment for fighting fires in the early stages, those being referred to as first aid fire fighting equipment in this rule.(b)The types of first-aid fire fighting equipments to be provided shall be determined by considering the different types of fire risks which are classified as follows: (i)"Class A fire"-Fire due to combustible materials such as wood, textile, paper, rubbish and the like.

1. "Light hazard"-Occupancies like offices assembly halls, canteens, rest-rooms, ambulance rooms and the like:

2. "Ordinary hazard"- Occupancies like saw mills, carpentry shop, small timber yards. book binding shops, engineering workshop and the like:

3. "Extra hazard"-Occupancies like large timber yards, godowns storing fibrous materials, flour mills, cotton mills, jute mills, large wood working factories and the like;

(ii)"Class B fire"-Fire inflammable liquids like oil, petroleum products, solvents, grease, paint, etc.(iii)"Class C fire"-Fire arising out of gaseous substances.(iv)"Class D-fire"-Fire from reactive chemicals, active metals and the like.(v)"Class E-Fire"-Fire involving electrical equipment and delicate machinery and the like.(c)The number and type of first aid fire fighting equipment to be provided shall be as per the following scale :(i)Class A Fire

1. Light hazard One 9 litter water bucket for every 100 square metres of floor area or part thereof and one 9 later water type (Soda-acid or gas pressure or bucket pump) extinguishers shall be provided for each 6 buckets or part thereof with a minimum of one extinguisher and two buckets per compartment of the building. These equipment shall be so distributed over the entire floor areas that person shall have to travel not more than 25 metres from any point to reach the nearest equipment:

2. Ordinary hazard One 9 litter water bucket for every 100 square metres of floor area or part thereof and one 9 litter water type (Soda-acid gas pressure or bucket pump) extinguishers shall be provided for each six buckets or part thereof, with a minimum of 2 extinguishers and 4 buckets per compartment of the building. These equipment shall be so distributed over the entire floor area that a person shall have to travel not more than 15 metres from any point to reach the nearest equipment:

3. Extra hazard The scale of equipment would be what is prescribed for ordinary hazard and, in addition, such extra equipment, as in the opinion of the inspector, are necessary, having regard to the special nature of occupancy :

Provided that in special cases, the Inspector, after taking into consideration the circumstances, authorise that the buckets prescribed in this clause may be dispensed with provided the number of the extinguishers provided is double that what is prescribed.(ii)Class B fire There shall be at least one fire extinguisher either, foam type or carbon dioxide or dry powder type per 50 square metres of floor area and shall be so distributed that no person is required to travel more than 15 metres from any point to reach the nearest equipment: In addition to the requirements extinguishers specified here requirement as laid down in clause (i) shall also be provided:(iii)Class C fire Carbon dioxide or dry chemical powder extinguishers shall be provided near to each plant or group of plants.(iv)Class D fire Special dry powder (Chloride based) type of extinguishers or sand buckets shall be provided on a scale as laid down for class B fire. The Inspector may required a higher scale of portable equipment to be provided depending upon the risk involved.(v)Class E fire Carbon dioxide or dry powder type extinguishers shall be provided near each plant or group of plants depending upon the risk involved.(d)The first aid fire fighting equipment shall conform to the relevant Indian Standards.(e)As far as possible the first aid fire fighting equipment shall all be

similar in shape and appearance shall have the same method of operation.(f)All first aid fire fighting equipment shall be placed in a conspicuous position and shall be readily and easily accessible for immediate use. Generally, these equipments be placed as near as possible to the exits or stair landing or normal routes of escape.(g)All water buckets and bucket pump type extinguishers shall be filled with clean water. All sand bucket shall be filled with clean dry and fine sand.(h)All other extinguishers shall be charged appropriately in accordance with the instructions of the manufacturer.(i)Each first-aid fire fighting equipment shall be allotted a serial no. by which it shall be referred to in the records. The following details shall be painted with white paint on the body of each equipment.

1. Serial number:

2. Date of last refilling; and

3. Date of last inspection.

(j)First-air fire fighting equipment shall be placed on platforms or in cabinets in such a way that their bottom is 750 mm above the floor level. Fire buckets shall be placed on hooks attached to a suitable stand or wall in such a way that their bottom is 750 mm above the floor level. Such equipment if placed out side the building, shall be under sheds or covers.(k)All extinguishers shall be thoroughly cleaned and recharged immediately after discharge. Sufficient refill materials shall be kept readily available for this purpose at all times.(l)All first-aid fire fighting equipments shall be subjected routine maintenance, inspection, and testing to be carried out by properly trained persons. Periodicity of the routine maintenance, inspection and test shall conform to the relevant Indian Standards.(12)Other fire fighting arrangements. (a) In every factory adequate provision of water supply for fire fighting shall be made and where the amount of water required in litters per minute, as calculated from the formula A + B + C + D divided by 20 in 550 or more, power driven trailer pumps of adequate capacity to meet the requirement of water as calculated above shall be provided and maintained.In the above formula A. The total area in square metres of all floors including galleries in all building of the factory,B. the total area in square metres of all floors and galleries including open space in which combustible materials are handled or stored,C. the total area in square metres of all floors over 15 metres above ground level, andD. the total area in square metres of all floors of all buildings other than those of fire resisting construction:Provided that in areas where the fire risk involved does not require use of water, such areas under B, C or D may, for the purpose of calculation be halved:Provided further that where the areas under B, C or D are protected by permanent automatic fire fighting installations approved by any Fire Association or Fire Insurance Company such areas may, for the purpose of calculation, be halved:Provided also that where the factory is situated at not more than 3 kilometres from an established city or town fire service, the pumping capacity based on the amount of water arrived at by the formula above may be reduced by 25% but no account shall be taken of this reduction in calculating water supply required under clause (s).(b)Each trailer pump shall be provided with equipment as per schedule appended to this rule. Such equipment shall conform to the relevant Indian standards.(c)Trailer pumps shall be housed in a separate shed or sheds which shall be sited closed to a principal source of water supplies, in the vicinity of the main risks of the factory.(d)In factories where the areas is such as

cannot be reached by man-hauling of trailer pumps within reasonable time, vehicles with towing attachment shall be provided at the scale of one for every four trailer pumps with a minimum of one such vehicle kept available at all times.(e)Water supply shall be provided to give flow of water as required under clause (a) for at least 100 minutes. At least 50% of this water supply or 450,000 litters whichever is less shall be in the form of static tanks of adequate capacities .(not less than 450,000 litters each) distributed round the Factory with due regard to the potential fire risks in the factory (Where piped supply is provided, the size of the main shall not be less than 15 centimeters diameter and it shall be capable of supplying a minimum of 4500 litters per minute at a pressure of not less than 7 kilo grams per square centimetres).(f)All trailer pumps including the equipment provided with them and the vehicles for towing them shall be maintained in good condition and subject to periodical inspection and testing as required.(13)Personnel in-charge of equipment and for fire fighting, fire drills etc. (a) The first-aid and other fire fighting equipment to be provided as required in sub-rule (11) and (12) shall be in charge of a trained responsible person.(b)Sufficient number of person shall be trained in the proper handling of fire fighting equipment as referred to in clause (a) and their use against the types of fire for which they are intended to ensure that adequate number of persons are available for fire fighting both by means of first-aid fire fighting equipment and others. Wherever vehicles with towing attachment are to be provided as required in clause (d) of sub-rule (12) sufficient number of persons shall be trained in driving these vehicles to ensure that trained persons are available for driving them whenever the need arises.(c)Fire fighting drills shall be held at least once in every 3 months.(14)Automatic sprinklers and fire hydrants shall be in addition and not in substitution of the requirements in sub-rules (11) and (12).(15)If the Chief Inspector is satisfied in respect of any factory or any part of the factory that owing to the exceptional circumstances such as inadequacy of water supply or infrequency of the manufacturing process or for any other reason, to be recorded in writing, all or any of the requirements of the rules are impracticable or not necessary for the protection of workers, he may by order in writing (which he may at his discretion revoke) exempt such factory or part of the factory from all or any of the provisions of the rules subject to conditions as he may by such order prescribe.

Schedule 13

Equipment to be provided with Trailer PumpFor light trailer pump of a capacity of 680 litters/minute.

1. Armored suction hose of 9 meters length, with wrenches.

1. Metal suction strainer

1. Basket strainer

1. Two-way suction collecting-head

1. Suction adopter.

10. Unlined or rubber lined 70 mm. delivery hose of 25 meters length complete with quick-release couplings

1. Dividing breaching piece

2. Branch piece with 15 mm. nozzles

1. Diffuser nozzle

1. Stand pipe with blank cap

1. Hydrant Key

4. Collapsible canvas buckets

1. Fire hook (Preventor) with cutting edge

1. 25 mm. manila rope of 30 meters length

1. Extension ladder of 9 meters length (where necessary)

1. Heavy axe

1. Spade

1. Pick axe

1. Crowbar

1. Saw

1. Hurricane lamp

1. Electric torch

1. Pair rubber gloves

For large trailer pump of a capacity of 1800 litter/minute

1. Armored suction hose of 9 meters length, with wrenches

1. Metal strainer 1 Basket strainer

1. Three-way suction collecting head

1. Suction adaptor

14. Unlined or rubber lined 70 mm delivery hose of 25 meters length complete with quick release couplings

1. Dividing breaching piece

1. Collecting breaching piece

4. Branch pipes with one 25 mm, two 20 mm and one diffuser nozzle

2. Stand pipes with blank caps

2. Hydrant keys

6. Collapsible canvas buckets

1. Coiling hook (preventor) with cutting edge

1. 50 mm manila rope of 30 meters length

1. Extension ladder of meters length (where necessary)

1. Heavy axe

1. Spade

1. Pick axe

1. Crowbar

1. Saw

1. Hurrican lamp

1. Electric torch

1. Pair rubber gloves.

Note : If it appears to the Chief Inspector of factories that in any factory the provision of breathing apparatus is necessary he may by order in writing require the occupier to provide suitable breathing apparatus in addition to the equipment for light trailer pump or large trailer pump as the case may be.] .Rule prescribed under sub-section (7) of section 38

64. Means of escape for cotton ginning factory. Notwithstanding anything contained in rule 63 cotton ginning factories shall be provided with at least 2 suitable earthen ramps or two flights of stair made of brick work or other fire-resisting material.

64A.

[x x x][Omitted by No. 4 dated 8.1.1991 [25-6-92]]

64B. [(1) Qualifications of the Safety officer. (a) A person shall not be eligible for appointment as a Safety Officer unless he :

(1)possesses a recognised degree in any branch of engineering or technology and has had practical experience of working in a factory in a supervisory capacity for a period of not less than 2 years; orA recognised diploma in any branch of engineering or technology and has had practical experience of working in a factory in a supervisory capacity for a period of not less than 5 years;(ii)[One-year full time Post Diploma in Industrial Safety recognized by All India Council for Technical Education or Council/Board of Technical Education of any State as approved qualification for the purpose of appointment as Safety Officer.][Inserted by No.1-A, dated 14.7-1979 [2-8-1979].](iii)has adequate knowledge of the language spoken by majority of the workers in the region in which the factory where he is to be appointed is situated.(b)Notwithstanding the provisions contained in clause (a), any person who:Possesses a recognised degree or diploma in engineering or technology and has had experience of not less than 5 years in a department of the Central or State Government which deals with the Administration of the Factories Act, 1948 or the Indian Dock Labourers Act, 1934, orPossesses a recognised degree or diploma in engineering or technology and has had experience of not less than 5 years, full time, on training, education consultancy; or research in the field of accident prevention in industry or in any institution, shall also be eligible for appointment as a

Safety Officer:Provided that the Chief Inspector may, subject to such conditions as he may specify; grant exemption from the requirements of this Rule, if in his opinion a suitable person possessing the necessary qualifications, and experience is not available for appointment:Provided further that, in the case of a person who has been working as a Safety Officer for a period of not less than 3 years on the date of commencement of this Rule, the Chief Inspector may subject to such conditions as he may specify, relax all or any of the above said qualification.](2)Conditions of Service (a) Where the number of Safety Officers to be appointed in a factory as required by a notification in the official gazette exceeds one, one of them shall be designated as the Senior Safety Officer and shall have a status higher than that of the others. The Senior Safety Officer shall be in overall in-charge of the Safety functions as envisaged in sub-rule (3), the other safety officers working under his control.(b)The Senior Safety Officer or the Safety Officer in the case of factories 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 Chief Executive of the factory. All other Safety Officers shall be given appropriate status to enable them to be discharge their functions effectively.(c)The scale of pay and allowances to be granted to the Senior Safety Officer and Safety Officer shall be as follows :(1)Senior Safety Officer. [Rs. 1500- 50- 1800-60-2100-75- 2250] [Substituted by No. 2 dated 27.2.1985 [27.2.85.]] plus such other allowances and facilities as admissible to other employees of the same status i.e. in the similar grade in the factory.(2)Safety Officer.- [R.s. 1000-30-1300-40-1500-50-1800-60-1860] [Substituted by No. 2 dated 27.2.1985 [1.4.85]] plus such other allowances and facilities as admissible to other employees of the same status i.e. in rhwaimilar grade in the Factory.(d)In the case of dismissal or discharge, a Safety Officer shall have a right to appeal to the State Government whose decision thereon shall be final.(3)Duties of Safety Officers The duties of a Safety Officer shall be to advise and assist the factory management in the fulfilment 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 she concerned departments in planning and organising 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 departments in ensuring high quality and availability of 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 workers and to render advice on measures to be adopted for removing the unsafe physical conditions and preventing unsafe actions by workers;(vii)to render advice on matters related to reporting and investigation of industrial accident and disease:(viii)to investigate selected accidents;(ix)to investigate the cases of industrial diseases contracted and dangerous occurrences reportable under Rule 101;(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 act as adviser and catalyst to such committees;(xii)to organise in association with the concerned department, campaigns competitions, contests and other activities which will develop and maintain the interest of the workers in establishing and maintaining safe conditions of work and procedures: and(xiii)to design and conduct either independently or in collaboration with the training department, suitable training and educational programmes for the prevention of personal injuries.(4)Facilities to be provided to Safety Officers An occupier of the

factory shall provide each Safety Officer with 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 prescribed in sub-rule (3).)

65. Ladders. All ladders used in replacing belts shall be specially made and reserved for that work and provided with hooks or an effective non-skid device.

Ladder provided with hooks must have hooks fitted in such suitable position that they rest on the shaft when the bottom end of the ladder is resign on the floor.

65A. Protection of workers attending to prime movers. (1) In every factory the work of oiling or attending to prime movers shall be done only by a specially trained adult male worker authorised to do such work whose name has been recorded in the register maintained in Form 8.

(2)Every such worker while oiling or attending to a prime mover shall wear tight fitting clothing.(3)A worker required to wear tight fitting clothing under sub- rule (2) shall be provided by the occupier with clothing which shall consist of at least a pair of closely fitting shirts and a closely fitting half sleeve shirt or vest. Such clothing shall be returned to the occupier on termination of service or when new clothing is provided.

65AA. [Ovens and Dryers: (1) Application. This rule shall apply to ovens and dryers, except those used in laboratories or kitchens of any establishment and those which have a capacity below 325 litters.

(2)Definition. For the purpose of this Rule, oven or drier means any enclosed structure, receptacle, compartment or box which is used for baking, drying or otherwise processing of any article or substance at a temperature higher than the ambient temperature of the air in the room or space in which the oven or drier is situated, and in which a flammable or explosive mixture of air and a flammable substance is likely to be evolved within the enclosed structure, receptacle, compartment or box or part thereof on account of the article or substance which is baked, dried or otherwise processed within it.(3)Separate electrical connection. Electrical power supplied to every oven or drier shall be by means of a separate circuit provided with an isolation switch.(4)Design, Construction, examination and testing. (a) Every oven or drier shall be properly designed on sound engineering practiced and be of good construction, sound material and adequate strength, free from any patent defects and safe if properly used.(b)No oven or drier shall be taken into use in a factory for the first time unless a competent person has thoroughly examined all its parts and carried out the tests as are required to establish that the necessary safe systems and controls provided for safety in operation for the processes for which it is to be used and a certificate of such examination and tests signed by that competent person has been obtained and is kept available for inspection.(c)All

parts of an oven or drier which has undergone any alteration or repair which has the effect of modifying any of the design characteristics, shall not be used unless a thorough examination and test as have been mentioned in clause (b) has been carried out by a competent person and a certificate of such examination and tests signed by that competent person has been obtained and is kept available for inspection.(5)Safety Ventilation. (a) Every oven or drier shall be provided with a positive and effective safety ventilation system using one or more motor-driven centrifugal fan so as to dilute any mixture of air and any flammable substance that may be formed within the oven or drier and maintain the concentration of the flammable substance in the air at a safe level of dilution.(b)The safe level of dilution referred to in clause (a) shall be so as to achieve a concentration of the concerned flammable substance in air of not more than 25 percent of its lower explosive limit:Provided that a level of concentration in air up to 50 percent of the lower explosive limit of the concern flammable substance may be permitted to exist subject to installation and maintenance of an automatic device which :(i)shows continuously the concentration of the flammable substances in air present in the oven or drier at any instant;(ii)sounds an alarm when the concentration of the flammable substance in air in any part of the oven or drier reaches a level of 50 percent of its lower explosive limit: and(iii)shuts down the heating system of the oven or drier automatically when the concentration in air of the flammable substance in any part of the oven or drier reaches a level of 60 percent of its lower explosive limit, is provided to the oven or drier and maintained in efficient working condition.(c)No over or drier shall be operated without its safety ventilation system working in an efficient manner.(d)No oven or drier shall be operated with a level of dilution less than what is referred to in clause (b).(e)Exhaust ducts of safety ventilation systems should be so designed and place that their ducts discharge the mixture of air and flammable substance away from the work-rooms and not near windows or doors or other openings from where the mixture could re-enter the work-rooms.(f)The fresh air admitted into the oven or drier by means of the safety ventilation system shall be circulated adequately by means of circulating fan or fans through all parts of the oven or drier so as to ensure that there are no locations where the flammable substance can accumulate in the air or become pocketed to any dangerous degree.(g)Throttling dampers in any safety ventilation system should be so designed by cutting away a portion of the damper or otherwise, that the system will handle at least the minimum ventilation rate required for safety when they are set in their maximum throttling position.(6)Explosion Panels. (a) Every oven or drier having an internal total space of not less than half cubic metres shall be provided with suitably designed explosion panels so as to allow release of the pressure of any possible explosion within the oven or drier through explosion vents. The area of openings to be provided by means of such vents together with the area of openings of any access doors, which are provided with suitable arrangements for their release in case of an explosion, shall be not less than 2200 square centimeters for every one cubic meter of volume of the oven or drier: The design of the explosion panels and doors as above said shall be such as to secure their complete release under an internal pressure of 0.25 kg. per square centimeter.(b)The explosion releasing panels, shall, as far as practicable, be situated at the roof of the oven or drier or at those portions of the walls where persons do not remain in connection with operation of the oven or drier.(7)Interlocking arrangements. (a) In each oven or drier efficient interlocking arrangements shall be provided and maintained to ensure that (1)all ventilating fans and circulating fans whose failures would adversely effect the ventilation rate of flow pattern, are in operation before any mechanical conveyor that may be provided for feeding the articles or substances to be processed in the oven or drier is put into

operation:(ii)failure of any of the ventilating or circulating fans will automatically stop any conveyor as referred to in clause (i) as may be provided, as well as stop the fuel supply by closing the shut off valve and shut off the ignition in the case of gas or oil fired ovens, and in the case of electrically heated ovens switch off the electrical supply to the heaters;(iii)the 'above said mechanical conveyor is set in operation before the above said shut off valve can be energized: and(iv)the failure of the above said conveyor will automatically close the above said shut off valve in the case of ovens and dryers heated by gas, oil or steam and deactivate the ignition system, or cut off the electrical heaters in the case of electrically heated ovens or furnaces:(8)Automatic preventilation. Every oven or drier heated by oil, gas, steam or electricity shall be provided with an efficient arrangement for automatic preventilation consisting of at least 3 volume changes with fresh air by operation of the safety ventilation fans and the circulating fans (if used) so as to effect purging of the oven or drier of any mixture of air and a flammable substance before the heating system can be activated and before the conveyor can be placed in position.(9)Temperature Control. Every oven or drier shall be provided with an automatic arrangement to ensure that the temperature within does not exceed a safe upper present limit to be decided in respect of the particular processing being carried on.(10)Multistage Processes. Wherever materials are to be processed in ovens or dryers in successive operations, suitable arrangement should be provided to ensure that the operating temperatures necessary for safe operation at each stage are maintained within the design limits.(11)Combustible substances not to drip on electrical heaters or burners flame. Effective arrangements shall be provided in every oven or drier to prevent dripping of combustible substances on electric heaters or burner flame used for heating.(12)Periodical Examination, Testing and Maintenance.- (a) All parts of every oven and drier shall be properly maintained and thoroughly examined and the various controls as mentioned in this rule and the working of the oven or drier tested at frequent intervals to ensure its safe operation by a responsible person designated by the occupier or manager or who by his experience and knowledge of necessary precautions against risks of explosion, is fit to undertake such work.(b)A register shall be maintained in which the details of the various tests carried out from time to time under clause (a) shall be entered and every entry made shall be signed by the person making the tests.(13)Training of Operators. No person shall be assigned any task connected with operation of any oven or drier unless he has completed 18 years of age and he is properly trained in the manner as prescribed by the Chief Inspector.(14)Polymerising Machines. (a) Printed fabric shall be thoroughly dried by passing them over drying cans or through hot flue or other equally effective means, before the same is allowed to pass through polymerising machines.(b)Infrared ray heaters of polymerising machines shall be cut off while running the prints."][Substituted by No. 4, dated 8.1.1991[25-6-1992]]

65B. Provision of crawling boards etc., on fragile roofs. In any factory, no person shall be required to stand or pass over or work on or near any roof or ceiling covered with fragile material through which he is liable to fall, in case it breaks or gives, way, a distance of more than three metres unless

(a)suitable and sufficient ladders, such ladders or crawling boards, which shall be securely supported are provided and used, and(b)a permit to work on the fragile roof is issued to him each time he is required to work thereon by a responsible person of the factory concerned.

65C. Safety Belts. Where any person is required or allowed to work at a place from where he may fall from a distance of more than ten feet, he shall be provided with a safety belt with leater shoulder straps of not less than two inches in width and a 'D' ring at the back for fastening a rope, the other end of which shall be securely tied or hooked to some suitable rigid fixture. The safety belt so provided shall be tested and examined thoroughly by a competent person at least once in six months and a certificate with regard to its suitability shall be obtained from the said competent person and entered in a register, which shall be produced before the Inspector on demand.

65D. Building and structure. 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.

65.

-E. 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.

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-F. Methods of work. No process or work shall be carried on in any factory in such a manner as to cause risk of bodily injury.

65.

-G. Stacking and storing of materials, etc. No materials or equipment shall be stocked or stored in such a manner as to cause risk of bodily injury.[65-H. Electricity Rules.] [This rule was inserted along with Rules 65-C to 65-G by Notification dated 6.8.1974. Since new Rules 65-H to 65-VV are inserted without deleting rule 65-11. this rule 65-H is also being reproduced here.]- These rules shall apply to all factories. They shall be in addition, and not derogatory, to the Indian Electricity Act, 1910 and the Indian Electricity Rules, 1956 made thereunder.

2. Definitions. (a) "Authorised Person" means a person over 21 years of age who may be

(i)Either a supplier or a consumer or (ii) a contractor for the time being under contract with the Supplier or the consumer to carry out duties incidental to the generation, transformation,

transmission, conversion, distribution or use of energy or (iii) any person authorised by the said supplier, consumer or contractor for the purposes specified by him, being the person who is competent to perform the duties specified in the Rules and whose name has been entered in a list maintained at the office or premises of the person authorising him and giving the purposes for which such person is authorised, and the entry has been attested by the authorised person and the person authorising him.(b)"Apparatus" means electrical apparatus, and includes all apparatus, machines and fittings in which conductors are used or of which they form a part.(c)"Bare" means not covered with insulating material.(d)"Circuit" means an electrical circuit forming a system or branch of a system.(e)"Conductor" means an electrical conductor arranged to be electrically connected to a system.(f)"Covered with insulating material" mean adequately covered with insulating material of such quality and thickness that there is no danger.(g)"Danger" means a danger to health or danger to life or limb from shock, burn or other injury to persons employed, or from fire attendant upon the generation, transformation, distribution or use of electrical energy.(h)"Dead" means at, or about, zero potential, and disconnected from any Live system.(i)"Earthed" means connected to the General mass of earth in such a manner as will ensure at all times an immediate discharge of electrical energy without danger.(j)"Live" means electrically charged.(k)"Pressure" means the difference of electrical potential between any two conductors or between a conductor and earth as read by a hot wire and electrostatic voltmeter.(l)"Low pressure" means a pressure in a system normally not exceeding 250 volts where the electrical energy is used.(m)"Medium pressure" means a pressure in a system normally above 250 volts but not exceeding 650 volts, where electrical energy is used.(n)"Switch Board" means the collection of switches or fuses, conductors and other apparatus in connection therewith used for the purpose of controlling the current or pressure in any system or part of a system.(o)"System" means an electrical system in which all the conductors and apparatus are electrically connected to a common source of electromotive force.

3. All apparatus and conductors shall be adequate in size and power for the work they are called upon to do and so constructed, installed, protected, worked and maintained as to prevent danger so far as is reasonably practicable.

4. All accessible metallic portions of electrical plant or apparatus, which though normally not forming part of an electrical circuit may become alive accidentally, shall be protected by an insulating covering or by other adequate means or shall be connected to earth by a conductor of adequate size.

5. Adequate working space and means of access, free from danger, shall be provided for all apparatus which have to be worked or attended to by any person.

6. The General arrangement of switch boards shall, so far as reasonably practicable. be such that

(a)all parts which may have to be adjusted or handled are readily accessible:(b)the course of every conductor may, where necessary, be readily traced:(c)conductors arranged for connection to the same system are kept well apart, and can, where necessary, be readily distinguished:(d)all bare conductors are so placed or protected as to prevent danger from accidental short circuit.

7. Every switch board having bare conductors normally so exposed that they may be touched, shall, if not located in an area or areas set apart for the purposes thereof, where necessary be suitably fenced or enclosed.

No person except an authorised person, or a person acting under his immediate supervision, shall, for the purpose of carrying out his duties, have access to any part of an area so set apart.

8. Every flexible wire for portable apparatus shall be connected to the system either by efficient permanent joints or connections or by a properly constructed connector.

In all cases where the person handling portable apparatus or pendent lamps with switches, would be liable to get a shock through a conducting floor or conducting work or otherwise, if the metal work of the portable apparatus became charged, the metal work must be efficiently earthed: and any flexible metallic covering of the conductor shall itself be efficiently earthed and shall not itself be the only earth connection for the metal of the apparatus.A lamp holder shall not be in metallic connection with the guard or other metal work of a portable lamp.In such places the portable apparatus and its flexible wire shall be controlled by efficient means suitable located, and capable of cutting of the pressure, and the metal work shall be efficiently earthed independently of any flexible metallic cover of the conductors and any such flexible covering shall itself be independently earthed.

9. In plug and socket connection for transportable apparatus the socket shall be connected to the conductor and the plug to the appliance side.

10. Plug for connecting movable conductors shall be of such construction that they do not get in the socket connections meant for higher current. Plug and socket connection shall be of such construction that the plug cannot be inserted or withdrawn while the current is on.

11. All conductors and apparatus exposed to the weather, wet-corrosion, inflammable surroundings of explosive atmosphere or use in any process or for any special purpose other than for lighting or power shall be so constructed or protected and such special precautions shall be taken as may

be necessary to prevent danger in view of such exposure or use.

12. Adequate precautions shall be taken to prevent any conductor or apparatus from being accidentally or inadvertently electrically charged when persons are working thereon.

13. Instructions, both in English and in Hindi as to the treatment of persons from electrical shock, shall be affixed in all premises where electrical energy is generated, transformed, converted, switched, controlled, regulated, distributed or used.

14. Exemptions. (i) Nothing in this rule shall apply to any service, lines, or apparatus on the supply side of the consumer's terminal, or to any chamber containing such service lines or apparatus where the supply is obtained from and outside authority:

Provided always that no live metal is exposed so that it may be touched.(ii)If the occupier can show, with regard to any requirement of this rule, that the special conditions in his premises are such as adequately to prevent danger that requirement shall be deemed to be satisfied and the Chief Inspector may by order in writing direct that any class of special conditions defined in the requirements of this rule adequately to prevent danger satisfied and may revoke such order. In particular the following shall be deemed for all the purposes of this rule adequate to prevent danger. Boom in which (a)the floor is of wood or otherwise insulated:(b)there is no machinery or other earthed metal with which a person handling any non-earthed lamp fittings or any portable lamp is liable to be in contact:(c)no process rendering the floor wet is carried on; and(d)no live conductor is normally exposed so that it may be touched.[65-H. 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 have 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 referred to in clause (1) shall be examined at least once in every period of 12 months up to the age of 45 years and once in every 6 months beyond that age.(3)Any fee payable for an examination of a person under this sub-rule 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 35.][Added by No. 4. dated 8.1.1991 [25-6-1992]][65-I. Railways in factories. (1) This rule shall apply to railways in the precincts of a factory which are not subject to Indian Railways Act, 1890.(2)Gateways. A gateway through which a railway track passes shall not be used for the general passage of workers into or out of a factory.(3)Barriers and Turngates. (a) Where building or walls contain doors or gates which open to railway track, a barrier about 1 meter high shall be fixed parallel to and about 60 cm. away from the building or wall outside the opening and extending several feet beyond it at either end, so that any person passing out may become a ware of an approaching train when his pace is checked at the barrier.If the traffic on the nearest track is all in

one direction, the barrier shall be in the form of on "L" with the end of the short leg abutting on to the wall and the other and opening towards the approaching train.(b)If the distance between wall and track cannot be made to accommodate such a barrier, the barrier or a turn-gate shall be placed at the inside of the opening.(c)Where a footway passage close to a building or other obstruction as it approaches a railway track, a barrier or a turn-gate shall be fixed in such a manner that a person approaching the track is compelled to move away from the building or obstruction and thus obtain timely sight of an approaching locomotive or wagon.(4)Crowds. (a) Workers pay-window, first aid stations and other points where a crowd may collect shall not be placed near a railway track.(b)At any time of the day when workers are starting or ending work, all railway traffic shall cease for not less than five minutes.(5)Locomotives. (a) No locomotive shall be used in shunting operations unless it is in good working order.(b)Every locomotive and tender shall be provided with efficient brakes, all of which shall be maintained in good working order. Brake shoes shall be examined at suitably fixed intervals and those that are worn out replaced at once.(c)Water-gauge glasses of every locomotive, whatever its boiler pressure, shall be protected with substantial glass or metal screens.(d)Suitable steps and hand-holds shall be provided at the corners of the locomotive for the use of shunters.(e)Every locomotive crane shall be provided with lifting and jacking pads at the four corners of the locomotive for assisting in re-railing operations.(f)It shall be clearly indicated on every locomotive crane in English and in language understood by the majority of the workers in the factory, for what weight of load and at what radius the crane is safe.(6)Wagons. (a) Every wagon (and passenger coach, if any) shall be provided either with self-acting brakes capable of being applied continuously or with efficient hand brakes which shall be maintained in good working order. The hand brakes shall be capable of being applied by a person on the ground and fitted with a device for retaining them in the applied position.(b)No wagon shall be kept standing within 3 metres of any crossing.(c)No wagon shall be moved with the help of crowbars or pinch bars.(7)Riding on locomotive, wagon or other rolling stock. No person shall be permitted to be upon (Whether inside or outside) any locomotive, wagon or after rolling stock except where secure foothold and handhold are provided.(8)Attention to brakes and doors. (a) No locomotive, wagon or other rolling stock shall be kept standing unless its brakes are firmly applied and, where it is on a gradient, without sufficient number of properly constructed scotches placed firmly in position.(b)No train shall be set in motion until the shunting jamadar has satisfied himself that all wagon doors are securely fastened.(9)Projecting loads and cranes. (a) If the load on a wagon projects beyond its length, a guard or dummy truck shall be used beneath the projection.(b)No loco-crane shall travel without load unless the jib is completely lowered and positioned in line with track.(c)When it is necessary for a loco-crane to travel with a load, the jib shall not be swing until the loco-crane has come to rest.(10)Loose-Shunting. Loose shunting shall be permitted only when it cannot be avoided it shall never be performed on a wagon not accompanied by a man capable of applying and pinning down the brakes. A wagon not provided with brakes in good working order and capable of being easily pinned down shall not be loose- shunted unless there is attached to it at least another wagon with such brakes. Loose shunting shall not be performed with, or against a wagon containing passengers, livestock or explosives.(11)Fly-shunting. Fly-shunting shall not be permitted on any factory railway.(12)The shunting Jamadar. (a) Every locomotive or wagon in motion in a factory shall be in-charge of a properly trained Jamadar as prescribed by the Chief Inspector.(b)Before authorising a locomotive or wagon to be moved, the shunting jamadar shall satisfy himself that no person is under or in-between or in front of the locomotive or wagon.(13)Hand signals. The hand signals used by

the shunting jamadar by day and night shall be those prescribed by the shunting rules of railway, working under the Indian Railway Act (IX of 1890).(14)Night work and fog. (a) In factories where persons work at night, no movement of locomotive, wagon or other rolling stock otherwise than by hand shall be permitted between sun-set and sun-rise unless the tracks and their vicinity are lighted in a scale of not less than 10 lux as measured at the horizontal plane at the ground level.(b)In no circumstances shall any locomotive or train be moved between sun-set and sun-rise or at any time when there is fog, unless it carries a white head light and a red rear light.(15)Speed control. (a) locomotive or train shall not be permitted to move at a speed greater than seven kilometers per hours.(b)A train, locomotive, wagon or other rolling stock shall not be moved by mechanical or electrical power unless it is proceeded at a distance of not less than 10 meters during the whole of its journey by a shunting jamadar. He shall be provided with signalling flags or lamp and whistle necessary for calling the attention of the driver.(16)Tracks. (a) The distance (I) between tracks and (ii) between tracks and building, blind walls or other structures and (iii) tracks and materials deposited on the ground shall be respectively not less than.(aa)from centre to centre of parallel tracks, the overall width of the widest wagon of that gauge plus twice the width of the door of such a wagon when opened directly outward plus 1 meter.(bb)from a building or structure other than a loading platform to the centre of the nearest track, half the overall width of the widest wagon of that gauge, plus the width of its door when opened outward, plus 1.5 metres.(cc)from material stocked or deposited alongside the track, on the ground or on a loading platform to the centre of the nearest track, half the over all width of the widest wagon of that gauge, plus half of its door when opened directly outward, plus 1 meter.(b)Sleepers of a track shall be in level with the ground and at the crossings of the track with a road or walkaway, the surface of the road or walkaway shall be in level with the top of the rails.(c)All track ends shall be equipped with buffer stops of adequate strength.(d)Barriers of substantial construction shall be securely and permanently fixed across any doorway or gateway in a building or in a wall which conceals an approaching train from view, between the building and the track as prescribed in clause (a) of sub- rule (3).(e)Where tracks are carried on a gantry or other elevation, a safe footway or foot ways with hand rails and toe-boards shall be provided at all positions where persons work or pass on foot. and where there is an opening in the stage of an elevated track for dropping of material to a lower level, the position shall be adequately fenced or the opening itself provided with a grill through which a person cannot fall.(f)All point levers shall have their movements parallel to, not across the direction of the track.(g)All loading platforms which are more than 60 cm. above the level of the ground on which the track is laid and more than 15 meters in length, shall he provided with stops at intervals not greater than 15 meters apart to enable the platform to be easily mounted from the track.(h)Turn tables on plant railways shall be provided either locking devices which will prevent the table from turning while locomotives or wagons are being turn on or off the tables.(1)Workers shall be prohibited from passing under, between or above railway wagons.(17)Crossings. (a) At all crossings of a track with a road or walkaway, danger or crossing signs and wherever reasonably practicable. blinking lights or alarm lights shall be provided at all important crossings, gates or barriers manned by watchmen shall be provided. Swinging gates and barriers shall be secured against inadvertent opening or closing.(b)All crossings, warning signs, gates and barriers shall be illuminated during hours of darkness.(18)Duties of drivers and shunters. It shall be the duty of every driver of a locomotive, or a shunter including a shunting jamadar. to report without delay to their superior any defect in permanent way, locomotive or rolling stock.(19)Young persons not to be employed as

drivers of locomotive or as shunters. No person who is under 18 years of age and no person who is not sufficiently competent and reliable shall be employed as a driver of a locomotive or as a shunter.(20)The Chief Inspector may by an order in writing exempt a factory or part of its from all or any of its form all or any of the provisions of this rule to such an extent and on such conditions as he deems necessary.][Added by No.4. dated 8.1.1991 [25.6.1992].][65-J. Safety committee. (1) In every factory wherein more than 50 workers are ordinarily employed and (a)Which carries on any process or operation declared to be dangerous under Section 87 of the Act; or(b)Which carries on 'hazardous process' as defined under Section 2(cb) of the Act.There shall be a Safety Committee.(2)The safety committee should have equal representatives of management and workers and should consists of not less than 2 and not more than 6 members from each side depending upon the size of the factory.The management representatives shall include a senior officer who is in position to contribute effectively to the functioning of the committee, and shall be chairman of the committee.(3)The workers' representatives on this committee shall be elected by the entire body of workers. The elections for this purpose shall be held by the management within 30 days of occurring of such vacancy on committee.(4)The tenure of the committee shall be three years.(5)Safety committee shall meet as often as necessary but at least once in every quarter. The minutes of the meeting shall be recorded and produced to the Inspector on demand.(6)Functions and duties of the Safety Committee may 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 problems encountered;(c)creating safety awareness amongst all workers;(d)undertaking educational. training and promotional activities;(e)discussing reports on safety, environmental and occupational health surveys, safety, audits, risk assessment, emergency and disaster management plans and implementation of the recommendations made in the reports;(f)carrying out health and safety surveys;(g)looking into any complaint made on the likelihood of an imminent danger to the safety and health of the workers and suggesting corrective measures; and(h)reviewing the implementation of the recommendations made by it;(i)suggesting ways & means to avoid reoccurrence of accidents.(7)Where owing to the size of the factory, or any other reason, the functions referred to in sub-rule (6) cannot be effectively carried out by the Safety Committee, it may establish sub- committees as may be required to assist it.][Added by No.4, dated 8.1.1991 [25.6.1992].][65-K. Quality of personal protective Equipments. All personal protective Equipments provided to workers as required under any of the provisions of the Act or the Rules shall conform to the relevant Indian Standards.][Added by No. 4. dated 8.1.1991 [25.6.1992].][65-L. Protective Equipment. The Inspector 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 workers exposed to particular hazard any personal protective equipment as may be found necessary.][Added by No. 4. dated 8.1.1991 [25.6.1992].][65-LL Thermic fluid heaters. (1) All heaters shall be of such construction that coils are removable for periodic cleaning, visual inspection and pressure test.(2)Suitable arrangements shall be made for continuous flow of thermic fluid effectively in case of power failure.(3)Before restarting the furnace, it shall be effectively purged.(4)Velocity of flow of the thermic fluid shall not be allowed to fall below the minimum recommended by the manufacturers while the heater is in operation.(5)The thermic fluid shall be circulated in a closed circuit formation with an expansion cum deaerator tank. This tank shall be located outside the shed, where the heater is installed.(6)Every heater shall be provided with a Photo-resistor or u, v. detector

actuated audio-visual alarm to indicate flame failure and automatic burner cut off. Audio-visual alarm so provided shall be properly maintained in a working condition.(7)The Stack temperature monitor-cum-controller with audio-visual alarm shall be provided so as to warn the operator in case the outlet temperature exceeds the specified temperature.(8)Where inspection doors are provided on the furnace they shall be inter locked with the burner itself so that they cannot be opened until burner is shut off and furnace is cooled sufficiently.(9)All heaters shall be provided with the following safety devices: (a)level gauge and control switch in the expansion tank,(b)temperature control of thermic fluid,(c)differential pressure switch between the outlet and inlet line of the heater tubes, and(d)temperature control device for the fuel oil supply to the burner.(10)All devices mentioned in sub-rule 9 shall have interlocking arrangements with burner so that in case of any predetermined limits being crossed the supply of fuel and air to burner shall automatically be cut-off.(11)All safety interlocks when operated shall be indicated on the control panel of the heater by a suitable audio-visual alarm.(12)Every heater unit shall be provided as a standard accessory. An arrangement for suiffing with low pressure steam or nitrogen or carbon-di-oxide for putting out the fire and connection point shall be provided on the heater unit for such arrangement.(13)Electric panel for the heater shall be located near the heater but not so close as to be exposed to spilling or leaking oil.(14)The heater shall be located in a place segregated from other manufacturing activities.(15)Explosion vent shall be so installed that release takes place at safe location.(16)The heater coil shall be subjected to pressure test by competent person once at-least in every 12 months. The test pressure shall not be less than 1.5 times the operating pressure.(17)If repairs are carried out to the coil, it shall be pressure tested at 1.5 times the operating pressure before taking it into use.(18)The thermic fluid shall conform to the specifications prescribed by the manufacturers and shall be tested by a competent person for suitability at least once in every three months period. Such test shall include test for acidity, suspended matter, ash contents, viscosity and flash point. The test reports shall be produced on demand to the Factory Inspector.(19)Cleaning of the internal surface of the heater or soot and check up of refractory surface on the inside shall be carried out every month or as often as required depending upon working conditions. The coils shall be removed and surface of the coils cleaned thoroughly once at least in a period of six months. The burner, nozzles, oil filters and pumps shall be cleaned once a week during the period of use.(20)A separate register containing the following information shall be maintained, (a)weekly checks carried out confirming the effectiveness of the inter lock,(b)weekly checks confirming that all accessories are in good stage of repairs, and(c)information regarding fuel oil temperature, pressure, thermic fluid inlet/outlet pressure and temperature, fuel gas, temperature, recorded at 4 hourly interval.(21)The heater when in operation shall always be kept in charge of a trained operator.][Inserted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].][65-M. Site Appraisal Committee. (1) Constitution: The following provisions shall govern the functioning of the Site Appraisal Committee, hereinafter, be referred to as the "Committee", in these rules:(a)The State Government may constitute a Site Appraisal Committee and reconstitute the committee as and when necessary for classes of factories notified by the State Government in this behalf.(b)The State Government may appoint a senior official of the Factories Inspectorate, preferably with qualification in Chemical Engineering to be the Secretary of the Committee.(2)No member unless required to do so by a court of Law, shall disclose otherwise than in connection with the purpose of the Act at any time any information relating to manufacturing or commercial business or any working process which may come to his knowledge during his tenure as a Member on this committee.(3)Applications for appraisal of sites:(a)Applications for appraisal of

site in respect of the factories covered under sub-rule (1) of rule 65-M shall be submitted to the Chairman of the Site Appraisal Committee.(b)The application for site appraisal along with 15 copies there-of shall be submitted in the Form annexed to this rule. The committee may dispense with furnishing information of any particular item in the Application form if it considers the same to be not relevant to the application under consideration.(4)Function of the Committee:(a)The Secretary shall arrange to register the applications received for appraisal of site in a separate register and acknowledge the same within a period of 7 days.(b)The Secretary shall fix up meeting in such a manner that all the applications received and registered are referred to the committee within a period of one month from the date of their receipt.(c)The Committee may adopt a procedure for its working keeping in view the need for expeditious disposal of applications.(d)The committee shall examine the application for appraisal of a site with reference to the prohibitions and restrictions on the location of industry and the carrying on processes and operations in different areas as per the provisions of Rule 5 of the Environment (Protection) Rules 1986 framed under the Environment Protection Act, 1986.(e)The Committee may call for documents, examine expects, inspect the site if necessary and take other steps for formulating its views in regard to the suitability of the site.(f)Wherever the proposed site requires clearance by the Ministry of Industry or the Ministry of Environment and Forests of the Central Government the application for site appraisal will be considered by the Site Appraisal Committee only after such clearance has been received.Format of Application to the Site Appraisal Committee-IFor large scale factories

1. Name and address of the applicant.

2. Site ownership data.

2.1Revenue details 'of site such as survey No., Plot No....etc.2.2Whether the site is classified as forest and if so, whether approval of the Central Government under Section 5 of the Indian Forests Act, 1927 has been taken.2.3Whether the proposed site attracts the provisions of Section 3(2)(V) of the E.P.Act, 1986. If so, the nature of the restrictions.2.4Local authority under whose jurisdiction the site is located.

3. Site Plan.

3.1Site plan with clear identification of boundaries and total area proposed to be occupied and showing the following details nearby the proposed site.(a)Historical monument, if any, in the vicinity.(b)Names of neighbouring manufacturing units and human habitats, educational and training institutions, petrol installations, storage's of LPG and other hazardous substances in the vicinity and their distances from the proposed unit.(c)Water sources (rivers, streams, canals, dams water filtration plants; etc.) in the vicinity.(d)Nearest hospitals, fire-stations, civil defence stations and police stations and their distances;(e)High tension electrical transmission lines, pipe lines for water, oil, gas or sewerage, railway lines, roads, stations, jatties and other similar installations.3.2Details of soil conditions and depth at which hard starta obtained.3.3Contour map of the area showing nearby hillocks and difference in levels.3.4Plot plan of the factory showing the entry and exit points, roads within, water drains etc.

4. Project Report.

4.1A summary of the salient features of the project.4.2Status of the organisation (Govt., Semi Govt., public or private etc.)4.3Maximum number of persons likely to be working in the factory.4.4Maximum amount of power and water requirements and source of their supply.4.5Block diagram of the buildings and installations, in the proposed supply.4.6Details of housing colony, hospital, school and other infrastructural facilities proposed.

5. Organisation structure of the proposed manufacturing unit/factory.

5.1Organisation diagrams of Proposed enterprise in general. Health, Safety and Environment protection Departments and their linkage to operation and technical departments.5.2Proposed Health and Safety policy.5.3Area allocated for treatment of wastes and effluent.5.4Percentage outlay on safety, health and environment protection measures.

6. Communication Links.

6.1Availability of telephone/telex/wireless and other communication facilities for outside communication.6.2Internal communication facilities proposed.

7. Manufacturing Process Information.

7.1Process flow diagram.7.2Brief write up on process and technology.7.3Critical process parameters such as pressure build-up temperature raise and run-away reactions.7.4Other external effects critical to the process having safety implications, such as ingress of moisture or water, contact with incompatible substances, sudden power failure.7.5High lights of the build-in safety/pollution control devices or measures/incorporated in the manufacturing technology.

8. Information of Hazardous Materials.

8.1Raw materials, intermediates, products and by products and their quantities (Enclose Material Safety Data Sheet in respect of each hazardous substance).8.2Main and intermediate storage's proposed for raw materials/ intermediates products/by-products (maximum quantities to be stored at any time.)8.3Transportation methods to be used for materials inflow and outflow, their quantities and likely routes to be followed.8.4Safety measures proposed for: handling of materials; internal and external transportation; and disposal (packing & forwarding of finished products).

9. Information on dispersal/disposal of Wastes and Pollutants.

9.1Major pollutants (gas, liquid, solid), their characteristics and quantities average and at peak loads).9.2Quality and quantity of solid wastes generated, method of their treatment and disposal.9.3Air, water and soil pollution problems anticipated and the proposed measures to control the same, including treatment and disposal of effluents.

10. Process Hazards Information.

10.1Enclose a copy of the report of environmental impact assessment.10.2Enclose a copy of the report on Risk Assessment study.10.3Published (open or classified) reports, if any, on accident situations/occupational health hazards in similar plants elsewhere (within or outside the country).

11. Information of proposed safety and occupational Health Measures.

11.1Details of fire fighting facilities and minimum quantity of water, CO_2 and or other fire fighting measures needed to meet the emergencies.11.2Details or in house medical facilities proposed.

12. Information on Emergency preparedness.

12.1On site emergency plan.12.2Proposed arrangements, if any, for mutual aid scheme with the group of neighbouring factories.

13. Any other relevant information.

I certify that the information furnished above is correct to the best of my knowledge and nothing of importance has been concealed while furnishing it.Name and signature of the applicant.Format of Application to the Site Appraisal Committee-II for Other than Large Scale Factories.

1. Name and address of the applicant.

2. Site ownership data.

2.1Revenue details of site such as Survey No., Plot No. etc:2.2Whether the site is classified as forest and if so, whether approval of the Central Government under Section 5 of the Indian Forests Act, 1927 has been taken.2.3Whether the proposed site attracts the provisions of Section 3(2)(V) of the E.P.Act, 1986, if so the nature of the restrictions.2.4Local authority under whose jurisdiction the site is located.

3. Site Plan.

3.1Site plan with clear identification of boundaries and total areas proposed to be occupied and showing the following details near-by the proposed site.(a)Names of neighbouring manufacturing units and human habitats, petrol installations, storage of LPG and other hazardous substances in the vicinity and their distances from the proposed unit.(b)Nearest hospitals, fire-stations, civil defence stations, police stations and their distances.3.2Plot plan of the factory showing the entry and exit points, roads within, water drains etc.

4. Project Report.

4.1Maximum number of persons likely to be working in the factory.4.2Maximum amount of power and water requirements and source of their supply.4.3Block diagram of the buildings and installations in the proposed supply.

5. Organisation structure of the proposed manufacturing unit/factory.

5.1Proposed Health and safety policy.

6. Communication links.

6.1Availability of telephone and other communication facilities for outside communication.

7. Manufacturing process information.

7.1Process flow diagram.7.2Brief write up on process and technology.7.3Critical process parameters such as pressure build up, temperature rise and run away reactions.7.4Other external effects critical to the process having safety implications, such as ingress of moisture or water, contact with incompatible substances sudden power failure.7.5Highlights of the built-in safety/pollution control devices or measures/incorporated in the manufacturing technology.

8. Information of Hazardous materials.

8.1Raw materials, intermediates, products and by-products and their quantities (Enclose material safety Data Sheet in respect of each hazardous substance).8.2Main and intermediate storage proposed for raw materials/intermediates/products Thy-products (maximum quantities to be stored at any time).8.3Transportation methods to be used for materials inflow and outflow, their quantities and likely routes to be followed.8.4Safety measures proposed for:- handling of materials;- internal and external transportation; and- disposal (packing and forwarding of finished products).

9. Information on dispersal/disposal of wastes and pollutants.

9.1Major pollutants (gas, liquid, solid) their characteristics and quantities (average and at peak loads).9.2Quality and quantity of solid wastes generates, method of their treatment and disposal.9.3Air, water and solid pollution problems anticipated and the proposed measures to control the same, including treatment and disposal of effluents.

10. Information of proposed safety and occupational Health Measures.

10.1Details of fire fighting facilities and minimum quantity of water, CO_2 and or other fire fighting measures needed to meet the emergencies.10.2Details of in-house medical facilities proposed.

11. On site emergency plan.

12. Any other relevant information.

I certify that the information furnished above is correct to the best of my knowledge and nothing of importance has been concealed while furnishing it.Name and signature of the applicant.][Added by No. dated 8.1.1991 [25.6.1992]][65-MM. Health and Safety policy. (1) In every factory: (a)Wherein more than 100-workers are ordinarily employed.(b)Which carries on any process or operation declared to be dangerous under Section 87 of the Act and employing more than 50 workers or(c)Which carries on 'hazardous process' as defined under section 2(cb) of the Act and employing more than 50 workers.The occupier shall prepare a written statement of his policy in respect of health and safety of workers at work.(2)Notwithstanding anything contained in sub-rule (1), the Chief Inspector may require the occupiers of any of the factory 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.(3)The Health and Safety policy should contain or deal with.(a)declared intention and commitment of the top management to health, safety and environment and compliance with all the relevant statutory requirements;(b)organisational set up to carry out the declared policy clearly assigning the responsibility at different levels; and(c)arrangements for making the policy effective.(4)In particular, the policy should specify the following:(a)arrangements for involving the workers;(b)intention of taking into account the health and safety performance of individuals at different levels while considering their career advancement;(c)fixing the responsibility of the contractors, sub-contractors, transporters and other agencies entering the premises;(d)providing a resume of health and safety performance of the factory in its Annual Report;(e)relevant techniques and methods, such as safety audits and risk assessment for periodical assessment of the status on health, safety and environment and taking all the re-medical measures;(f)stating its intentions to integrate health and safety, in all decisions including those dealing with purchase of plant, equipment, machinery and material as well as selection and placement of personnel;(g)arrangements for informing, educating and training and retraining its own employees at different levels and the public wherever required;(h)obligations of worker for promoting health and safety.(5)A copy of the declared Health and Safety Policy signed by the occupier shall be made available to the Inspector having jurisdiction over the factory and to the Chief Inspector.(6)The policy shall be made widely known by (a)displaying copies of the policy at conspicuous places and making copies of the policy available to worker on demand; and(b)any other means of communication, in a language under-stood by majority of workers.(7)The occupier shall revise the safety policy as often as may be appropriate, but it shall necessary 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.][Added by No. 4 dated 8.1.1991 [25.6.1992]][65-N. Collection and development and dissemination of information. (1) The occupier of every factory carrying on a 'hazardous process' shall arrange to obtain or develop information in the form of Material Safety Data Sheet (MSDS) in respect of every hazardous substance or material handled in the manufacture, transportation and storage's in the factory. It shall be accessible upon request to a worker for reference.(a)Every such Material Safety Data Sheet shall include the following information:(i)The identity used on the

label;(ii)Hazardous ingredients of the substance;(iii)Physical and chemical characteristics of the hazardous substance;(iv)The physical hazards of the hazardous substance, including the potential for fire, explosion and reactivity;(v)The health hazards of the hazardous substance including signs symptoms of exposure, and any medical conditions which are generally recognised as being aggravated by exposure to the substance;(vi)The primary route (s) of entry;(vii)The permissible limits of exposure prescribed in the second Schedule under Section 41F of the Act, and in respect of a chemical not covered by the said Schedule, any exposure limit used or recommended by the manufacturer, importer or occupier;(viii)Any generally applicable precautions for safe handling and use of the hazardous substance, which are known, including appropriate hygienic practices, protective measures during repairs and maintenance of contaminated equipment, procedures for clean-up of spills and leaks;(ix)Any generally applicable control measures, such as appropriate engineering controls, work practices, or use of personal protective equipment;(x)Emergency and first-aid procedures;(xi)The date of preparation of the Material Safety Data Sheet, or the last change to it; and(xii)The name, address and telephone number of the manufacturer, importer, occupier or other responsible party preparing or distributing the Material Safety Data Sheet, who can provide additional information on the hazardous substance and appropriate emergency procedure if necessary.(b)The occupier while obtaining or developing a Material Safety Data Sheet in respect of a hazardous substance shall ensure that the information recorded accurately reflects the scientific evidence used in making the hazard determination. If he becomes newly aware of any significant 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)Any example of such Material Safety Data Sheet is given in the schedule to this Rule.

2. Labelling. Every container of a hazardous substance shall be clearly labelled or marked to identify;

(a)the contents of the container;(b)the name and address of the manufacturer or importer of the hazardous substance;(c)the physical and health hazards; and(d)the recommended personal protective equipment needed to work safely with the hazardous substance.][Added by No. 4 dated 8.1.1991 [25.6.1992]]

[Substituted by G.S.R. No. 49 , dated 8.8.2002 [13.8.2002].]

Format of a Safety Data Sheet

1. Identity of material

ProductionName	ChemicalDesignation	
Trade Name	Synonyms	
Formula	LabelClass	Category
RegulatedIdentification		ShippingNameCodes/Label
HazardousIngredients	C.A.SNo.:	
1.2.3.4.		

2.Physical and chemical properties		
PhysicalStateVapour(Gas,Liquid, Solid)	BoilingPoint in Degree CPressureat 35°C.....mm/Hg	
Appearance	Melting/FreezingPoint C	VapourPressure@35°C mm
OdourOthersCorrosivityetc.	VapourDensity(Air=1)SpecificGravity(Water=1)	Solubilityin Waterat 30°CpH
3.Fire and explosion hazards data		
Explosion/Flammability	FlashPoint°CFlashPoint °C	LEL%UEL%
4.Reactive Hazards		
(Products)	Impact	(Hazardous)
(Stabilityot Products)	StaticDischarge	(Hazardouscomposition
	Reactivity	(Conditionsto Avoid)
Hazardous	May/Maynot	
Polymerization	Occur	(Conditionsto avoid)
Incompatibility		Materialto avoid)
5.Health hazard data		
Routesof Entry	Inhalation,Skin,Mucous Membranesand Eye contact and Ingestion)	
Effectsof Exposure/SymptomsLD 50 (In RAT) Orally or Per cutaneousAbsorption) LC 50 (In RAT))		
(Mg/Kg.Body Weight)	(mg/1)/4Hour	
PermissibleExposure Limit (PEL)	ShortTerm ExposureLimit (STEL)	
ppmmg/cu.m.	Ppm/cu.m	
ThresholdLimit Value	ppmmg/cu.m.	Odourppm mg/cu.m
TLVof ACGIH		
EmergencyTreatment	Threshold	
6.Hazard specification		
NEPASpecial	HazardSignal	Health
KnownHazards		
Combustible	Water	Irritant
Liquid	Reactivematerial	
FlammableMaterial	Oxidizer	Senstizer
Pyrophoricmaterial	OrganicPeroxide	Carcinogen

Explosivematerial	Corrosivematerial	Mutagen
Unstablematerial	CompressedGAX	Others(Specify)
7.Safe usage data		
Ventilation	General/Mechanical	
	LocalExhaust	
ProtectiveEquipment	Eyes(Specify)	
Required	Respiratory(Specify)	
	Gloves(Specify)	
	Clothing(Specify)	
	Others(Specify)	
Precautions	Handling& Storage	
	Others(Specify)	
8.Emergency response data		
	FireExtinguishing Media	
Fire	SpecialProcedures	
	UnusualHazards	
Exposure	First	Aid
Measures		
(Inhalation,Skin and Eye Contact Ingestion)		
Spills	Stepsto be takenWest Disposal method	
9.Additional information		
10.Sources used		
Referenceto Books, Journals, etc.		
11.Manufactures/Supplier Data		
FirmsName	StandardPacking	
MailingAddress	TelephoneNo.	
Telex No.	Other	
TelegraphicAddress		
Contactperson in Emergency	Other	
EmergencyTel. In Transit Areas		

Acronymsand Glossary of Terms:

CAS –Abstract Service Registration Number

UN Numb –United Nations Number

HAZCHEM CODE Emergency Action Code (EAC), Allocated by the Joint Committee of Fire Bregade Operations, UKTOG Flammability Transport of Dangerous Goods FlammabilityClassification by United NationsNFPA National Fire Protection Association, USALD 50 and LC 50 Represent the Dose in MC/KC of Body Weight and the Concentration in (MG/1) for 4 Hours Having Lethal effect on 50% of the Animals (Rats) TreatedPEL Permissible Exposure Limit as laid down in the statutesTLV Threshold Limit Value as laid down by the American Conference of Governmental Industrial Hygienists. (ACGIH), USASTEL Short Term Exposure Limit as laid down in the statutes or by the ACGIH.Guidelines:All efforts should be made to fill in all the Columns. No Column should be left blank][65-NN. Disclosure of information to workers. (1) The occupier of a factory carrying on a hazardous process shall supply to all workers the following information in relation to handling of hazardous material or substances in the manufacture, transportation, storage and other processes;(a)Requirements of Section 41 B. 41 C and 41 H of the Act;(b)A list of 'hazardous processes' carried on in the factory;(c)Location and availability of all material safety Data Sheets as per Rule 65N;(d)Physical and health hazards arising from the exposure to or handling of substances;(e)Measures taken by the occupier to ensure safety and control of physical and health hazards;(f)Measures to be taken by the workers to ensure safe handling, storage and transportation of hazardous substances;(g)Personal protective equipment required to be used by workers employed in 'hazardous process' or 'dangerous operation';(h)Meaning. of various labels and markings used on the containers of hazardous substances as provided under Rule 65N;(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)Rule of workers vis-a-vis the emergency plan of the factory, in particular the evacuation procedures;(l)Any other information considered necessary, by the occupier to ensure safety and health of workers;(2)The information required by sub-rule (1) shall be complied and made known to workers individually through supply of booklets or leaflets and display of cautionary notices at the work places.(3)The booklets, leaflets and the cautionary notices displayed in the factory shall be in the language understood by the majority of the workers and also explain to them.(4)The Chief Inspector may direct the occupier to supply further information to the workers as deemed necessary.][Added by No.4. dated 8.1.1991 [25.6.1992].][65-O. X X X][Omitted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].][65-P. X X X][Omitted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].][65-PP. Disclosure of information to the Chief Inspector. [(1) The occupier of every factory carrying on hazardous process shall furnish, in writing to the Chief Inspector, a copy of all the information furnished to the workers.][Added by No. 4, dated 8.1.1991 [25.6.1992].](2)A copy of compilation of material safety Data Sheets in respect of hazardous substances used, produced or stored in the factory shall be furnished to the Chief Inspector, and the local Inspector.(3)The occupier shall also furnish any other information asked for by the Chief Inspector from time to time for the purpose of this Act and Rules made thereunder.][65-Q. X X X][Omitted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].][65-QQ. X X X][Omitted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].][65-R.

Information on industrial wastes. (1) The information furnished under Rule [65-NN and 65-PP] [Added by No.4. dated 8.1.1991 [25.6.1992].] shall include the quantity of the solid and liquid wastes generated per day, their characteristics and the method of treatment such as incineration of solid wastes chemical and biological treatment of liquid wastes, and arrangements for their final disposal.(2)It shall also include information on the quality and quantity of gaseous waste discharged through the stocks or other openings, and arrangements such as provision of scrubbers. cyclone separators, electrostices precipitators or similar such arrangements made for controlling pollution of the environment.(3)The occupier shall also furnish the information prescribed in the sub-rule (1) and (2) to the State Pollution Control Board.][65-RR. Review of the information furnished. (1) The occupier shall review once in every calendar year and modify, if necessary, the information furnished under rule-65-NN and 65-PP to the workers and Chief Inspector.(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.][Substituted by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].][65-S. Confidentiality of information. The occupier of a factory carrying on hazardous process shall disclose all information needed for protecting safety and health of the workers and general public in the neighbourhood to,(a)his workers; and(b)Chief Inspectoras required under rules 65-NN and 65-PP. 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 stating the reasons for withholding such information. The Chief Inspector shall give an opportunity to the occupier of being heard and pass an order on the representation.An occupier aggrieved by an order of Chief Inspector may prefer an appeal before the State Government within a period of 30 days. The State Government shall give an opportunity to the occupier of being heard and pass an order. The order of the State Government shall be final.][Substitution by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].][65-SS. Medical Examination. (1) Workers employed in a 'hazardous process' shall be medically examined by a qualified medical practitioner hereinafter referred to as Factory Medical Officer in the following manner: (a)Once before employment, to ascertain physical fitness of the person to do the particular job;(b)Once in a period of 6 months, to ascertain the health status of all the workers in respect of occupational health hazards to which they are exposed; and in cases where in the opinion of the Factory Medical Officer it is necessary to do so at a shorter interval in respect of any worker;(c)The details of pre-employment and periodical medical examinations carried out as aforesaid shall be recorded in the health Register in Form No.19.(2)No person shall be employed for the first time without a certificate of Fitness in Form 5 granted by the factory Medical Officer. If the Factory Medical Officer declares a person unfit for being employed in any process covered under sub-rule (1), such a person shall have the right to appeal to the Inspector who shall refer the matter to the Certifying Surgeon whose opinion shall be final in this regard. If the Inspector is also a Certifying Surgeon, he may dispose of the application himself.(3)Any findings of the Factory Medical Officer repealing any abnormality or unsuitability of any person employed in the process shall immediately be reported to the Certifying Surgeon who shall in turn, examine the concerned worker and communicate his findings to the occupier within 30 days. If the Certifying Surgeon is of the opinion that the workers so examined is required to be taken away from the process for health protection, he will direct the occupier accordingly, who shall not employ the said worker in the same process. However, the worker so taken away shall be provided with alternate placement unless he is in the opinion of the Certifying Surgeon, fully

incapacitated in which case the worker affected shall be compensated as per law.(4)A certifying Surgeon on his own motion or on a reference from an Inspector may conduct medical examination of a worker to ascertain the suitability of his employment in a hazardous process or for ascertaining his health status. The opinion of the Certifying Surgeon in such a case shall be final. The fee required for this Medical Examination shall be paid by the occupier.(5)The workers taken away from employment in any process under sub-rule (2) may be employed again in the same process only after obtaining the Fitness Certificate from the Certifying Surgeon and after making entries to that effect in the Health Register.(6)The workers 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.(7)The Factory Medical Officer shall have qualifications included in Schedules to the Indian Medical Degree Act. 1916 or in the Schedules to the Indian Medical Council Act, 1956 and possess a certificate of Training in Industrial Health of minimum three month duration recognised by the State Government.Provided that: (i)a person possessing a Diploma in Industrial Health or equivalent shall not he required to possess the certificate of training as aforesaid:(ii)the Chief Inspector. may subject to such conditions as he may specify, grant exemption from the requirement of this sub- rule, if in his opinion a suitable person possessing the necessary qualification is not available for appointment:(iii)in case of a person who has been working as a factory Medical Officer for a period of not less than 3 years on the date of commencement of this rule, the Chief Inspector, may subject to the condition that the said person shall obtain the aforesaid certificate of training within a period of three years relax the qualification.(8)The syllabus of the course leading to the above certificate, and the organisations conducting the course shall be approved by the Directorate General of Factory Advice Service and Labour Institutes or the State Govt. in accordance with the guidelines issued by the DGFASLI.(9)Within one month of the appointment of a Factory Medical Officer, the occupier of the factory shall furnish to the Chief Inspector the following particulars: (a)Name and address of the Factory Medical Officer(b)Qualifications(c)Experience, if any, and(d)the sub-rule under which appointed.][Added by No.4. dated 8.1.1991 125.6.1992].][65-T. Occupational Health Centres. (1) In respect of any factory carrying on hazardous process or dangerous operations and employing more than 500 workers, there shall be provided and maintained in good order an Occupational Health Centre with the Services and facilities as laid down hereunder:For Factories employing above 500 workers:-(i)One full-time Factory Medical Officer having qualification prescribed under rule 65 (SS).(ii)An Occupational Health Centre having at least 2 rooms each with a minimum floor area of 15 Sq.Mt. with floors and walls made of smooth and impervious surface arid adequate illuminations and ventilation as well as equipment as per the schedule annexed to this rule.(iii)there shall be one nurse, one dresser-cum-compounder and one sweeper-cum-ward boy throughout the working period.(iv)the Occupational Health Centre shall be suitably equipped to manage medical emergencies.

Schedule 15

Equipment for occupational Health Centre in Factories.

1. A glazed sink with hot and cold water always available.

2. A table with a smooth top of size at least 180 cm x 105 cm.

3. Means for sterlizing instruments.

4. A couch.

5. Two buckets or containers with close fitting lids.

6. A kettle and spirit stove or other suitable means of boiling water.

7. One bottle of spritus ammoniac aronatious (120 ml.).

8. Two medium size sponges.

9. Two 'Kidney' trays.

10. Four cakes of toilet, preferably antiseptic soap.

11. Two glass tumblers and two wine glasses.

12. Two clinical thermometers.

13. Two tea spoons.

14. Two graduated (120 ml.) measuring glasses.

15. One wash bottle (1000 cc) for washing eyes.

16. One bottle (one liter) carbolic lotion 1 in 20.

17. Three Chairs.

18. One Screen.

19. One Electric Hand Torch.

20. An adequate supply of tetanus toxied.

21. Coramine liquid (60 ml.)

22. Tablets-antihistaminic, antispasmodic (25 each).

23. Syringes with needles-2 cc, 5 cc and 10 cc.

24. Two needle holders, big and small.

25. Suturing needles and materials.

26. One dissecting forceps.

27. One dressing forceps.

28. One scapels.

29. One stethoscope.

30. Rubber bandage, Pressure bandage.

31. Oxygen Cylinder with necessary attachment.

32. One Blood Pressure apparatus.

33. One Patellar Hammer.

34. One stomach wash set.

35. Any other equipment recommended by the Factory Medical Officer according to specific need relating to manufacturing process.

36. One peak flow meter for lung function measurement.

37. In addition :

(1)For Factories employing 501 to 1000 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 morphia, pethidine, atropine,

adrenalin, caramine novacan (2 each).(vi)one pair surgical scissors.(2)For Factories employing above 1000 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 artery forceps.(v)Injections morphia, pethidine, atropine, adrenaline, carmine novacan (4 each).(vi)Two pair surgical scissors.][65-TT. Ambulance Van. (1) In any factory carrying on 'hazardous process', there shall be provided and maintained in good condition, a suitably constructed ambulance van equipped with items as per sub-rule (2) and manned by a full time Driver-cum- Mechanic and a Helper trained in first-aid, for the purposes of transportation of serious cases of accidents or sickness. The ambulance van shall not be used for any purpose other than the purpose stipulated herein and will normally be stationed at or near to the occupational Health Centre:Provided that a factory employing up to 500 workers, may make arrangements for procuring such facility at short notice from a nearby hospital or other places, to meet any emergency.(2)The Ambulance should have the following equipments: (a)General : A wheeled stretcher with folding and adjusting devices with the head of the stretcher capable of being titled upward; Fixed suction unit with equipment; Fixed Oxygen supply with equipment; Pillow with case, sheets, blankets, towels; Emesis bag, Bed pan, Urinals, Glass.(b)Safety equipments: Flares with life of 30 minutes: flood lights; Flash lights, fire extinguisher dry powder type: Insulated gauntlets.(c)Emergency Care equipments :(i)Resuscitation : Portable suction units, portable Oxygen units; Bag-valve-mask, hand operated articles/ventilation unit; Airways, mouth gages, Tracheostomy adopters, Short spine board, I.V.Fluids with administration unit; B.P.Manometer, Cugg, Stethoscope.(ii)Immobilization : Long & short padded boards-wire ladder splints; Triangular bandage, Long and short spine boards.(iii)Dressings : Cause pads 4" X 4", -Universal dressing 10" X 36": Roll of aluminium foils, soft roller-bandages 6" X 5" yards: adhesive tape in 3" roll, safety pin, Bandage sheets, Burn sheet.(iv)Poisoning : Syrup of Ipecac-Activated Charcoal pre packeted in doses, snake bite kit: Drinking water.(v)Emergency Medicines : As per requirement (under the advice of medical officer only).][Added by No.4. dated 8.1.1991 [25.6.1992.]][65-U. Decontamination facilities. In every factory carrying out the 'hazardous process', the following provisions shall be made to meet any emergency: (a)Fully equipped first aid box;(b)readily accessible means of water for washing by workers as well as for drenching the clothing of workers who have been contaminated with hazardous and corrosive substance: and such means shall be as per the scale shown in the Table below: Table

No. of persons employed at any time	No. of drenching Showers
(i) Up to 50 workers	2
(ii) Between 51 to 200 workers	2 + 1 for every additional 50 or part thereof
(iii) Between 201 to 500 workers	5 + 1 for every additional 100 or part thereof
(iv) 501 workers and above	8 + 1 for every additional 200 or part thereof.

(c)A sufficient number of eye wash bottle filled with distilled water or suitable liquid, kept in boxes or cupboards conveniently situated and clearly indicated by a distinctive sign which shall be visible at all times.][Added by No.4. dated 8.1.1991[25.6.1992.]][65-UU. Making available Health records to

workers. (1) The occupier of every factory carrying out a 'hazardous process' shall make accessible the health records including the record of workers exposure to hazardous process or. as the case may be, the medical records of any workers or his perusal under the following conditions. (a)Once in every six months or immediately after the medical examination which ever is earlier:(b)If the factory Medical Officer or the Certifying surgeon as the case may be. is of the opinion that the worker has manifested signs and symptoms of any notificable diseases as specified in the third schedule of the Act:(c)If the worker leaves the employment:(d)If any one of the following authorities so direct: The Chief Inspector of Factories: The Health Authority of the Central or State Government: Commissioner of Workers 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 up-to-date health records including the record of workers exposure to hazardous process or, as the case may be, the medical records shall be supplied to the worker on receipt of an application from him, X-Ray plates and other medical diagonistic reports may also be made available for reference to his medical practitioner.][Added by No. 4 dated 8.1.1992]][65-V. Qualifications, etc. of Supervisors. (1) In every factory covered under rule 65 QQ the persons who are required to supervise the handling of hazardous substances shall possess the following qualifications and experience:(a)(1) A degree in Chemistry or Diploma in Chemical Engineering or Technology with 5 years experience: or(ii)A Master's degree in Chemistry or a Degree in Chemical Engineering or Technology with 2 years experience.The experience stipulated above shall be in process operation and maintenance in the Chemical Industry.(b)The Chief Inspector may require the supervisor to undergo training in Health and Safety.(2)The syllabus and duration of the above training and the organisations conducting the training shall be approved by the D.G. FASLI or the State Government in accordance with guidelines issued by the D.G. FASLI.][Added by No.4. dated 8.1.1991 [25.6.1992.]][65-VV. Issue of guidelines. For the purpose of compliance with the requirements of Sub-sections (1). (4) and (7) of Section 41-B or 41-C the Chief Inspector may, if deemed necessary, issue guidelines from time to time to the occupiers of factories carrying on "hazardous process": Such guidelines may be based on National Standards, Codes of Practice, or recommendations of International Bodies such as ILO and WHO.][Added by No.4. dated 8.1.1991 [25.6.1992.]]

Chapter V
Welfare

66. Washing facilities. (1) [x x x]

[Sub-rule (1). deleted by No. 1. dated 24.3.1979.](2)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.(3)Without prejudice to the generality of the foregoing provisions the washing facilities shall include (a)a trough with taps or jets at intervals of not less than [60 cms.] [Substituted by No. 1, dated 24.3.1979]], or(b)wash-basins with taps attached thereto, or(c)taps on stand-pipes, or(d)showers controlled by taps, or(e)circular troughs of the fountain type, provided that the Inspector may, having regard to

the needs and habits of the workers, fix the proportion in which the afore-mentioned types of facilities shall be installed.(4)(a)Every trough and basin shall have a smooth, impervious surface and shall be fitted with a waste-pipe and plug.(b)The floor or ground under and in the immediate vicinity of every trough, tap, jet, wash-basin, stand-pipe and shower shall be so laid or finished as to provide a smooth impervious surface and shall be adequately drained.(5)For person whose work involves contact with any injurious or noxious substance there shall be at least one tap for every fifteen persons: and for persons whose work does to involve such contact the number of taps shall be as follows:

No. of workers	No. of taps
up to 20	1
21 to 35	2
36 to 50	3
51 to 150	4
151 to 200	5
Exceeding 200 but not exceeding 500	5 plus one tap for every 50 or fraction of 50.
Exceeding 500	11 plus one tap for every 100

(6)If female workers are employed, separate washing facilities shall be provided and so enclosed or screened that the interiors are not visible from any place where persons of the other sex work or pass. The entrance to such facilities shall bear conspicuous notice in the language understood by the majority of the workers "For Women Only" and shall also be indicated pictorially.(7)The water supply to the washing facilities shall be capable of yielding at least 30 litres] a day for each person employed in the factory and shall be from a source approved in writing by the Health Officer: Provided that where the Chief Inspector is satisfied that such an yield is not practicable he may by certificate in writing permit the supply of a smaller quantity not being less than [5 litres] [Substituted by No. 1, dated 24.3.1979.] per day for every person employed in the factory.

66A. All classes of Factories mentioned in the schedule annexed hereto shall provide facilities for keeping clothing not worn during working hours and for the drying of wet clothing. Such facilities shall include the provisions of arrangements approved by the Chief Inspector of Factories.

Schedule 16

1. Glass Works

2. Engineering Workshops

3. Iron and Steel Works

4. Oil Mills

5. Chemical Works

6. Automobile Workshops

7. Dyeing Works.

67. [First-aid appliance. The first-aid boxes or cupboards shall be distinctively marked with a red cross on a white ground and shall contain the following equipments:

A. For factories in which the number of persons employed does not exceed ten, or (in the case of factories in which mechanical power is not used) does not exceed fifty persons. Each first-aid box or cupboard shall contain the following equipments: (i)6 small sterilized dressings.(ii)3 medium size sterilized dressings.(iii)3 large size sterilized dressings.(iv)3 large size sterilized burn dressings.(v)1 (30 ml) bottle containing a two per cent alcoholic solution of iodine.(vi)1 (30 ml) bottle containing sal-volatile having the dose and mode of administration indicated on the label.(vii)A snake-bite lancet.(viii)1 (30 mgs) bottle of potassium permanganate crystals.(ix)one pair of scissors.(x)1 copy of the first-aid leaflet issued by the Director General Factories Advice Service and Central Labour Institute, Government of India.(xi)A bottle containing 1 10 tablets (each of 5 grains) of Aspirin.(xii)Ointment for burns.(xiii)A bottle of suitable surgical Antiseptic solution.B. For factories in which mechanical power is used and in which the number of persons employed exceeds ten but does not exceed fifty-Each first-aid box or cupboard shall contain the following equipments: (i)12 small sterilized dressings.(ii)6 medium size sterilized dressings.(iii)6 large size sterilized dressings.(iv)6 large size sterilized burn dressings.(v)6 (15 mgs) packets of sterilized cotton wool.(vi)1 (60 ml) bottle containing a two per cent alcoholic solution of iodine.(vii)1 (60 ml) bottle containing sal-volatile having the dose and mode of administration indicated on the label.(viii)1 roll of adhesive plaster.(ix)A snake bite lancet.(x)1 (30 mgs) bottle of potassium permanganate crystals.(xi)1 pair of scissors.(xii)1 copy of first-aid leaflet issued by the Director General Factories Advice Service and Central Labour Institute, Government of India.(xiii)A bottle containing 110 tablets (each of 5 grains) of Aspirin.(xiv)Ointment for burns.(xv)A bottle of a suitable surgical antiseptic solution.C. For factories employing more than fifty persons-Each first-aid box or cupboard shall contain the following equipments:-(i)24 small sterilized dressings.(ii)12 medium size sterilized dressings.(iii)12 large size sterilized dressings.(iv)12 large size sterilized burn dressings.(v)12 (15 mgs) packets of sterilized cotton wool.(vi)1 snake bite lancet.(vii)1 pair of scissors.(viii)2 (30 mgs) bottles of potassium permanganate crystals.(ix)1 (120 ml) bottle containing a two per cent alcoholic solution of iodine.(x)1 (120 mi) bottle of sal-volatile having the dose and mode of administration indicated on the label.(xi)I copy of the first-aid leaflet issued by the Director General Factories Advice Service, Government of India.(xii)(a)A bottle containing 100 tablets (each of 5 grs) of aspirin,(b)Ointment for burns,(c)A bottle of a suitable surgical antiseptic solution.(xiii)12

roller bandages 10 ems. wide.(xiv)12 roller bandages 5 ems. wide.(xv)2 rolls of adhesive plaster(xvi)6 triangular bandages.(xvii)2 packets of safety pins.(xviii)A supply of suitable splints.(xix)1 tourniquet.Provided that items (xii) and (xviii) inclusive need not be included in the standard first-aid box or cupboard (a) where there is a properly equipped ambulance room or (b) if at least one box containing such items and placed and maintained in accordance with the requirements of section 45 is separately provided.D. In lieu of the dressings required under items (1) and (ii), there may be substituted adhesive dressings approved by the Chief Inspector of Factories].[Substituted by No. 1, dated 24.3.1979.]Rule prescribed under sub-section (3) of section 45

68. Ambulance room. (1) [x x x]

[Sub-rule (1) deleted by No.1, dated 24.3.1979.](2)[Every ambulance room shall be under the charge of at least one whole time qualified medical practitioner (hereinafter referred to as medical officer) assisted by at least one qualified nurse or dresser-cum-compounder and one nursing attendant in each shift:Provided that where a factory works in more than one shift the Chief Inspector, if he is satisfied that on account of the size of the factory, nature of hazards or frequency of the accidents.it is not necessary to employ a whole-time medical officer for each shift separately. may, with the previous approval of the State Government, grant exemption from the provisions of this sub-rule and permit employment of only one whole-time medical officer for more than one or all shifts, subjects to the conditions that:(a)there shall be no relaxation in respect of nursing staff: and(b)the medical officer is readily available on call during the working hours of the factory.][Substituted by No. 4. dated 8.1.1991[25-6-1992]](2A)[No medical officer shall be required or permitted to do any work which is inconsistent with or detrimental to his responsibilities under this rule.][Added by No.4, dated 8.1.1991 [25-6-1992]](2B)[There shall be displayed in the ambulance room a notice giving the name, address and telephone number of the medical practitioner in-charge. The name of the nearest hospital and its telephone number shall also be mentioned prominently in the said notice.][Added by No. 4. dated 8.1.1991 [25.6.1992].](3)The ambulance room [x x x] [Omitted by No. 4, dated 8.1.1991 [25-6-92].] shall be separate from the rest of the factory and shall be used only for the purpose of first- aid treatment and rest. It shall have a floor area of at least [24 Sq. Metres] [Substituted by No. 1, dated 24.3.1979.] and smooth, hard and impervious walls and floor and shall be adequately ventilated and lighted by both natural and artificial means. [There shall be attached to it least one latrine and urinal of sanitary type.] [Inserted by No. 4, dated 8.1.1991 [25.6.1992].] An adequate supply of wholesome drinking water shall be laid on and the room shall contain at least:-(i)a glazed sink with hot and cold water always available.(ii)A table with a smooth top at least [180cms x 105 cms.] [Substituted by No. 1. dated 24.3.1979.][Added by No.4. dated 8.1.1991[25.6.1992].](iii)Means for sterilizing instruments.(iv)A couch.(v)Two stretchers.(vi)Two buckets or containers with close fitting lids.(vii)Two rubber hot water bags.(viii)A kettle and spirit stove or other suitable means of boiling water.(ix)Twelve plain wooden splints [900 mms x 100 mms x 6 mms]. [Substituted by No. 1, dated 24.3.1979.](x)Twelve plain wooden splints [350 aims x 75 mms x 6 mms. [Substituted by No. 1, dated 24.3.1979.](xi)Six plain wooden splints [250 mms x 50 mms x 12 mms). [Substituted by No.1. dated 24.3.1979.](xii)Six woolen blankets.(xiii)One pair artery forceps.(xiv)One bottle of brandy.(xv)Two medium size sponges.(xvi)Six hand towels.(xvii)Four "Kidney" trays.(xviii)Four cakes carbolic soap.(xix)Two glass tumblers and two

wine glasses.(xx)Two clinical thermometers.(xxi)Graduated measuring glass with teaspoon.(xxii)One eye bath.(xxiii)One bottle [one litre] [Substituted by No. 1. dated 24.3.1979.] carbolic lotion 1 in 20.(xxiv)Three chairs.(xxv)One screen.(xxvi)One electric hand torch.(xxvii)Four first-aid boxes or cupboards stocked to the standards prescribed under item C of rule 63.(xxviii)An adequate supply of anti-tetanus serum.(4)The occupier of every factory to which these rules apply shall, for the purpose of removing serious cases of accident or sickness, provide in the premises and maintain in good condition a suitable conveyance. [x x x][Omitted by No.1. dated 24.3.1979.](5)A record of all cases of accident and sickness treated at the room shall be kept and produced to the Inspector or Certifying Surgeon when required.(6)Where a hospital. ambulance room or dispensary is maintained at or within 200 metres of the precincts of the factory and arrangements are made as to ensure immediate treatment of all injuries sustained by workers within the factory and for providing rest to the workers so injured, the Chief Inspector of Factories may by an order in writing exempt any factory from the requirements of this rule, subject to such conditions as he may specify in that order.Rules 69 to 75 prescribed under section 46

69. Canteens. (1) [x x x]

[Omitted by No. 1, dated 24.3.1979.](2)The occupier of every factory notified by the State Government, and wherein more than two hundred and fifty workers are ordinarily employed shall provide in or near the factory an adequate canteen according to the standards prescribed in these rules.(3)The Manager of a Factory shall submit for the approval of the Chief Inspector, plans and site plan, in duplicate, of the building to be constructed or adapted for use as a canteen.(4)The canteen building shall be situated not less than fifty feet from any latrine, urinal. boiler house, coal stacks, ash dumps and any other source of dust, smoke or obnoxious fumes:Provided that the Chief Inspector may in any particular factory relax the provisions of this sub-rule to such extent as may be responsible in the circumstances and may require measures to be adopted to secure the essential purpose of this sub-rule.(5)The canteen building shall be constructed in accordance with plans approved by the Chief Inspector and shall accommodate at least a dining hall. kitchen, store room, pantry and washing places separately for workers and for utensils.(6)In a canteen the floor and inside walls up to a height of 4 feet from the floor shall be made of smooth and impervious materials: the remaining portion of the inside walls shall be made smooth by cement plaster or in any other manner approved by the Chief Inspector.(7)The doors and windows of a canteen building shall be fly proof construction and shall allow adequate ventilation.(8)the canteen shall be sufficiently lighted at all times when any person have access to it.(9)(a)In every canteen(i)all inside walls of rooms and all ceilings and passages and staircases shall be lime-washed or colour-washed at least once in each year or painted once in three years dating from the period when last time washed, or painted, as the case may be:(ii)all wood work shall be varnished or painted once in three years dating from the period when last varnished or painted:(iii)all internal structural iron or steel work shall be varnished or painted once in three years dating from the period when last varnished or painted: provided that inside walls of the kitchen shall be lime-washed once every four months.(b)Records of dates on which lime-washing, colour-washing varnishing or painting is carried out shall be maintained in the prescribed register (Form No. 7).(10)The precincts of the canteen shall be maintained in a clean and sanitary condition. Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance. Suitable

arrangement shall be made for the collection and disposal of garbage.

70. Dining Hall. (1) The dining hall shall accommodate at a time at least 30 per cent of the workers working at a time:

Provided that in any particular factory or in any particular class of factories, the State Government may, by a notification in this behalf, alter the percentage of workers to be accommodated.(2)The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs, shall be not less than [one square metre] [Substituted by No. 1-A, dated 14.7.1979 [2-8-1979]] per diner to be accommodated as prescribed in sub-rule (1).(3)A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number. Washing places for women shall be separate and screened to secure privacy.(4)Sufficient tables, chairs or benches shall be available for the number of diners to be accommodated as prescribed in sub-rule (1).

71. Equipment. (1) there shall be provided and maintained sufficient utensils, crockery, cutlery furniture and any other equipment necessary for the efficient running of the canteen. Suitable clean clothes for the employees serving in the canteen shall also be provided and maintained.

(2)The furniture, utensils and other equipment shall be maintained in a clean and hygienic condition. A service counter, if provided, shall have a top of smooth and impervious material.Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment.(3)Where the canteen is managed by a Co-operative Society registered under the Rajasthan Co-operative Societies Act. 1953 the occupier shall provide the initial equipment for "such canteen and shall undertake that any equipment required" thereafter for the maintenance of such canteen shall be provided by such Co-operative Society.

72. [Prices to be charged: (i) Food stuff, beverages and other items served in the canteen shall be sold on non-profit basis;

(ii)In computing the prices referred to in sub-rule (i) the following items of expenditure shall not be taken into consideration but will be borne by the Occupier(a)the rent for the land and building;(b)the depreciation and maintenance charges of the building and equipment provided for the canteen:(c)the cost of purchase, repairs and replacement of equipment including furniture, crockery, cutlery and utensils;(d)the water charges and expenses for providing lighting and ventilation;(e)the interest on the amount spent on the provisions and maintenance of the building, furniture and equipment provided for the canteen:(f)the cost of fuel required for cooking or heating foodstuffs or water; and(g)the wages of the employees serving in the canteen and the cost of uniforms, if any, provided to them.(iii)the charges per portion of foodstuff, beverages and any other items served in the canteen shall be conspicuously displayed in the canteen.][Substituted by No. 1-A, dated 14.7.1979 [2-8-1979]]

73. Accounts. (1) All books of accounts, registers and any other documents used in connection with the running of the canteen shall be produced on demand to an Inspector.

(2)The accounts pertaining to the canteen shall be audited, once every twelve months, by registered accountants and auditors. The balance sheet prepared by the said auditors shall be submitted to the Canteen Managing Committee not later than two months after the closing of the audited accounts:Provided that the accounts pertaining to the canteen in a Government factory having its own accounts department may be audited in such department:Provided further that where the canteen is managed by a Cooperative Society, registered under the Rajasthan Co-operative Societies Act, 1953 the accounts pertaining to such canteen may be audited in accordance with the provisions of the Rajasthan Co- operative Societies Act, 1953.

74. Managing committee. (1) The Manager shall appoint a Canteen Managing Committee which shall be consulted from time to time as to:

(a)the quality and quantity of food stuffs to be served in the canteen:(b)the arrangement of the menus;(c)times of meals in the canteen; and(d)any other matter as may be directed by the Committee:Provided that where the canteen is managed by a Co-operative Society registered under the Rajasthan Co-operative Societies Act, 1953, it shall not be necessary to appoint a canteen Managing Committee.(2)The Canteen Managing Committee shall consist of even number of persons nominated by the occupier and elected by the workers. The number of elected workers shall be in the proportion of 1 for every 1000 workers employed in the factory, provided that in no case shall there be more than 5 or less than 2 workers on the Committee.(3)The Manager shall determine and supervise the procedure for election to the Canteen Managing Committee.(4)The Canteen Managing Committee shall be reconstituted every two years, the previous managing committee holding office till such time as the new committee takes charge.

75. Foodstuffs to be served and prices to be charged. (1) The Inspector of Factories may, by an order in writing direct the Manager to provide in the canteen any item of foodstuff if he is satisfied that such item is in general demand. Such order shall specify the size of each portion to be served, the number of portion which shall be available and the frequency of serving the particular item per week. Such order shall also specify the time limit within which the order shall be complied with.

(2)Food, drink and other items served in the canteen shall be sold on non-profit basis and in computing the charges to be made for such food, drink or other items the following items shall not be taken into consideration, namely: (a)the rent for the land and building;(b)the depreciation and maintenance charges of the building and equipment provided for the canteen;(c)the cost of purchase, repairs and replacement of equipment including furniture, crockery, cutlery and utensils;(d)the water charges and other charges incurred for lighting and ventilation;(e)the interest

on the amounts spent on the provision and maintenance of furniture and equipment provided for the canteen;(f)[suitable provisions shall be made in every room for supply of drinking water and facilities for washing] [Added by No.4, dated 8.1.1991 [25-6-1992]]; andProvided that where the canteen is managed by a Co-operative Society registered under the Rajasthan Co-operative Societies Act, 1953 such society may include in the charges to be made for any such food, drink or other item served, a profit up to 5 per cent on its working capita] employed in running the canteen.(3)[the lunch room shall (a)comply with the requirements laid down in clause (a) to (f) of sub-rule (2), and(b)be provided with adequate number of tables with impervious tops for the use of workers for taking food.][Added by No.4, dated 8.1.1991 [25-6-1992]]Rules prescribed under section 47

76. Shelters, rest rooms and lunch rooms. (1) [x x x]

[Omitted by No.1, dated 24.3.1979.](2)The shelters, or rest rooms and lunch rooms shall conform to the following standards and the manager of a factory shall submit for the approval of the Chief Inspector a site plan in duplicate of the building to be constructed or adapted: (a)The building shall be soundly constructed and all the walls and roof shall be of suitable heat resisting materials and shall be water-proof. The floor and walls to a height of [one metre] [Substituted by No. 1. dated 24.3.1979.] shall be so laid or finished as to provide a smooth, hard and impervious surface.(b)The height of every room in the building shall be not less than [3.75 metres] [Substituted by No. 1, dated 24.3.1979.] from floor level to the lowest part of the roof and there shall be at least [1.1 sq. metres] [Substituted by No.1, dated 24.3.1979.] of floor area for every person employed: Provided that (i) workers who habitually go home for their meals during the rest periods may be excluded in calculating the number of workers to be accommodated, and (ii) in the case of factories in existence at the date of commencement of the Act, where it is impracticable, owing to lack of space to provide 12 square feet of floor area for each person, such reduce floor area per person shall be provided as may be approved in writing by the Chief Inspector.(c)Effective and suitable provision shall be made in every room for securing and maintaining adequate ventilation by the circulation of fresh air and there shall also be provided and maintained sufficient and suitable natural or artificial lighting.(d)Every room shall be adequately furnished with chairs and benches with back-rests.(dd)Where in any factory washing facilities are not located near the rest or lunch room, a sufficient number of wash basins shall be provided in the lunch room.(e)Sweepers shall be employed whose primary duty is to keep the rooms, building and precincts there of in a clean and tidy condition.Rules 77 to 80 prescribed under sub-section (3) of section 48

77. Creches. (1) [x x x]

[Omitted by No. 1, dated 24.3.1979.](2)The creche shall be conveniently accessible to the mothers of the children accommodated therein and so for as is reasonably practicable it shall not be suitable in close proximity to any part of the factory where obnoxious fumes, dust or odours are given of or in which excessively noisy processes are carried on.(3)The building in which the creche is situated shall be soundly constructed and all the walls and roof shall be of suitable heat-resisting materials and shall be water-proof. The floor and internal walls of the creche shall be so laid or finished as to provide a smooth impervious surface.(4)The height of the rooms in the building shall be not less than [3.75 metres] [Substituted by No.1, dated 24.3.1979.] from the floor to the lowest part of the

roof and there shall be not less than [2 sq. metres] [Substituted by No. 1, dated 24.3.1979.] of floor area for each child to be accommodated.(5)Effective and suitable provision shall be made in every part of the creche for securing and maintaining adequate ventilation by the circulation of fresh air.(6)The creche shall be adequately furnished and equipped and in particular there shall be one suitable cot or cradle with the necessary bedding for each child (provided that for children over two years of age, it will be sufficient if suitable bedding is made available), at least one chair or equivalent seating accommodation for the use of each mother while she is feeding or attending to her child, and a sufficient supply of suitable toys for the older children.(7)A suitable fenced and shady open air play ground shall be provided for the older children : Provided that the Chief Inspector may by order in writing exempt any factory from compliance with this sub-rule, if he is satisfied that there is not sufficient space available for the provision of such a play ground.

78. Wash-room. (1) There shall be in or adjoining the creche a suitable wash-room for the washing of the children and their clothing. The wash-room shall conform to the following standards:

(a)The floor and internal walls of the room to a height of [1 metre] [Substituted by No. 1. dated 24.3.1979.] shall be so laid or finished as to provide a smooth impervious surface. The room shall be adequately lighted and ventilated and the floor shall be effectively drained and maintained in a clean and tidy condition.(b)There shall be at least one basin or similar vessel for every four children accommodated in the creche at any one time together with a supply of water provided, if practicable, through taps from a source approved by the Health Officer. Such source shall be capable of yielding for each child a supply of at least five gallons of water a day.(c)An adequate supply of clean clothes, soap and clean towels shall be made available for each child while it is in the creche.(2)Adjoining the washing room referred to above, a latrine shall be provided for sole use of the children in the creche. The design of the latrine and the scale of accommodation to be provided shall either be approved by the Public Health Authorities or where there is no such Public Health Authority, by the Chief Inspector of Factories.

79. Supply of milk and refreshment. At least half a pint of clean pure milk shall be available for each child on every day. it is accommodated in the creche and the mother of such a child shall be allowed in the course of her daily work for intervals of at least 15 minutes each (other than those allowed under section 55) to feed the child. For children above two years of age, there shall be provided in addition an adequate supply of wholesome refreshment.

80. Creche Staff. For each creche, there shall be appointed a woman in-charge and an adequate number of female attendants to help the woman in-charge. The chreche staff shall be provided with suitable clean clothes for use while on duty.

80A. Qualification of a woman in-charge. (1) Except as provided in sub-rule (2). no woman shall be appointed under rule 80 as a woman in-charge of a creche after the 1st of June, 1965 unless she produces a certificate that she has undergone training for a period of not less than 18 months in a hospital maternity home or nursing house approved in this behalf by the Chief Inspector of Factories, or produce a certificate that she has received training for a pre-primary teacher in an institution approved by the State Government.

(2)The provisions of sub-rule (1) shall not apply in case of a woman who is in-charge of a creche in a factory on the 1st June, 1965.

Chapter VI
Working Hours of Adults

Rule prescribed under sub-section (2) of section 52

81. Compensatory holidays. (1) Except in the case of workers engaged in any work which for technical reasons must be carried on continuously throughout the day, the compensatory holidays to be allowed under sub-section (1) of section 52 of the Act shall be so spaced that not mere than two holidays are given in one week.

(2)The Manager 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 prescribed under section 61 is displayed. Any subsequent change in the notice in respect of any compensatory holiday shall be made not less than three days in advance of the date of that holiday.(3)Any compensatory holiday or holidays to which a worker is entitled shall be given to him before he is discharged or dismissed and shall not be reckoned as part of any period of notice required to be given before discharge or dismissal.(4)(a)The Manager shall maintain a Register in Form No. 10:Provided that, if the Chief Inspector of Factories is of the opinion that any muster-roll or register maintained as part of the routine of the factory, or return made by the Manager. gives in respect of any or all of the workers in the factory, the particulars required for the enforcement of section 52, 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 on demand.Muster-roll prescribed under sub-section (4) of section 59

82. Muster-roll for exempted factories. The Manager of every Factory in which workers are exempted under section 64 or 65 from the provisions of section 51 or 54. shall keep a muster-roll in Form No. 11 showing the normal piece-work rate of pay, or the rate of pay-per hour, of all exempted employees. In this muster- roll shall be correctly entered the over-time hours of work and payments therefor of all exempted workers. The muster-roll in Form No. 11 shall always be available for inspection.

82A. Cash equivalent of concessional food supplies, etc. The cash equivalent of the advantage occurring through the concessional sale to a worker of food grains and other articles shall he computed at the end of every wage period fixed under the provisions of the Payment of Wages Act, 1936.

82B. Method of computing cash equivalent. For the purpose of computing cash equivalent of the advantage occurring through the concessional sale to a worker of food grains and other articles, the difference between the value of food grains and other articles at the average rates in the nearest market prevailing during the wage period in which over-time was worked and value of food grains and other articles supplied at concessional rates shall be calculated and allowed for the number of over-time hours worked.

This rule shall not apply to any Federal Railway Factory whose alternative method of computation has been approved by the State Government.

82C. Over-time slips. The period of over-time worked shall be entered in over-time slips in duplicate, a copy of which duly signed by the Manager or by a person duly authorised by him shall be given to the worker immediately after completion of the over-time work.

Rules prescribed under section 60

83. Double employment of workers. (a) The Inspector of Factories may sanction the employment of adult workers in more than one factory on the same day, if he is satisfied that such adult worker is allowed to work not more than 48 hours in a week and is allowed weekly Holidays as per section 52.

(b)A note under the initials of the Inspector shall be made in the remarks column of register of such workers, permitted to work in more than one factory.Notice prescribed under sub-section (8) of section 61

84. The notice of periods of work for adults. The notice of periods of work for adult workers shall be in Form No. 12.

Register prescribed under sub-section (2) of section 62

85. Register of adult workers. The register of adult workers shall be in Form No. 13.

This register shall be written up afresh each year and shall be preserved for a period of 12 months from the date of last entry in it.

86. [Persons to hold position of Supervision or Management] [Rules 86 to 89 substituted by Notification No. 2. dated 27.2.1985 [1-4-1985]]. The following persons shall be deemed to hold position of supervision or management .

(a)All persons specified in the Schedule annexed thereto.(b)Any other person who in the opinion of the Chief Inspector holds a position of supervision or Management in a factory and is declared so in writing by him or application by the Manager of the Factory under such condition as may be imposed by the Chief Inspector:Provided that the persons so declared shall be drawing a salary of not less than Rs.500/- per month inclusive of all allowances.

Schedule 17

List of persons to hold positions of supervision or management in Factories: I-All Factories

1. Manager.

2. Assistant Manager.

3. Labour Officer.

4. Welfare Officer.

5. Departmental Heads and Assistant.

6. Engineers (including Assistant Engineers).

7. Head Store-Keepers.

Such boiler attendants who are in charge of battery of boilers and are only required to do the supervisory work.

8. Technical experts.

9. Head Electrician.

II-Engineering workshop

1. Foremen.

2. Inspectors.

3. Chargeman.

4. Workshop overseers.

(In addition to persons in the list "1. All Factories" above)III Spinning and Weaving Mills, Engineering Department.

1. Foremen Mechanics.

Spinning Department

1. Jobbers of Muccadams.

Note:- Spinning Department shall, for the purpose of this rule, be deemed to include also the blowing, carding, drawing and frame department.Weaving Department

1. Jobbers, Overseers of Muccadams.

(Weaving Department shall, for the purpose of this rule be deemed to include preparatory departments of winding, warping and sizing).Dyeing, Bleaching. Folding, Calendering, Finishing and Cloth Printing Departments.Jobbers, overseers or Muccadams.(In addition to Persons in the list "I. All Factories" above).

87. Persons to hold confidential positions. (1) Head time keeper employed in a factory shall be deemed to be employed in a Confidential position in the factory.

(2)Any other person who in the opinion of the Chief Inspector holds confidential position in the Factory and is declared so in writing by him, on application by the manager of the factory under such conditions as may be imposed by the Chief Inspector:Provided that the persons so declared shall be drawing a salary of not less then Rs.500/- per month inclusive of all allowances.

88. List to be maintained of persons holding confidential position or supervision or management. A list showing the names, designation and nature of work of all such persons to whom the provisions of sub-section (1) of section 64 have been applied shall be maintained in every factory and a copy thereof shall be sent to the Inspector.

89. Exemption of certain adult workers. Adult workers engaged in factories specified in column 3 of schedule hereto annexed on the work specified in column 4 of the said schedule shall be exempted from the provisions of the sections specified in column 5 of the said schedule subject to the conditions, if any specified in column 6 of the said schedule.

Provided that : (1)No female adult worker shall be required or allowed to work for more than nine hours on any day except in the case of urgent repairs covered by item (i) of the said schedule and no male adult worker shall be required to allowed to work for more than ten hours on any day.(2)No male adult worker shall be required or allowed to work in any quarter for more than fifty hours over time on weekly limits.(3)Period of work for each male adult worker shall be so arranged that inclusive or his interval rest they shall not spread over more than twelve hours in any day :Provided further that the restrictions imposed by sub-clause (2) & (3) shall not apply in the case of a shift worker engaged in factories specified against serial Nos. 9, 11 to 21, 23 to 34{i), 35(i), 43, 45 and 57(i) of the schedule and allowed to work in the whole or part of the subsequent shift in place of a worker who has failed to report for duty.

Sl. No.	Section of The Act empowering grantof exemption	Class of a factory	Nature of exempted work Extent	Extennt of expmption	conditions
1	2	3	4	5	6
1.	64(2)(a) and 64(3)	All factories	Urgent repairs (Urgent repairs shallmean work to be done to machinery	Sections 51, 52, 54, 56, &61	(a) Unless the Inspector gives permission

or plant but only so far as maybe necessary to avoid serious in-interference with the ordinaryworking of the undertaking)

inwriting for reporting otherwise than as herein laid down theemployment of persons on urgent repairs, the manager :—(i)Shall send within twenty four hours of the commencement of workon urgent repairs, a written notice to the Inspector describingbriefly the nature of the urgent repairs and the probable periodof their duration, and(ii) Shall send weekly during thecontinuance of the work on urgent repairs, a statement giving thenames of all the persons, who have worked for more than ninehours in any one day or for more than forty-eight hours of thepreceding week in a factory. Such statement shall also show

					totalnumber o hours worked each day of the week.(b)If the Inspector is of opinion that a work being carried on orlikely to be carried on in factory as "urgent repairs"is not "urgent repair the Inspector shall serve theManager o order to that effect and the manager shall respectof such work not allow any worker to work in contravention theprovisions sections 51, 52 54, 55, 56 and shall comply withthe provision of section 61.
2.	64(2)(b) 64(2)(h) 64(3)	All factories other than those oncontinuous process	Works performed by:(i) All workers attendingto engines & boilers or generators of gas preparatory to thecommencement of regular work(ii) Workers at-tending to millgearings, starting stopping and maintaining electric motors &connected	Sections 51, 52, 55, 56 and 61.	(a) Such workers shall b allowed not les thantwo holidays in eac period covered by four consecutive statutoryfacto holidays and shall not be allowed to wo

switch gear.(iii Department boilers.(iv)Workers attending to mechanical or electric lifts

for more thans hours on any o the other two weekly holidays.(b) Thenotice required by section 52 shal be delivered to the office ofthe Inspector showing on which days holidays will b allowed;(c)Int for food and re shall be given t all workers allowedto worl on such work.(d) No workers be allowed to wor formore than fifty four hours in any one wee and(e) Registeror muster roll required to be maintained under section shallshow correctly full particulars of periods within which each suchworker ma be 'required to work. The entries in the register ormuster roll shall be up-to

					date.
3.	64(2) and 64(3)	All Factories	Work performed by drivers on lighting ventilatingand humidifying apparatus.	Section 51, 54, 55, 56 and 61	(a) intervals fo food and rest shall be given toall such workers.(b) Register or muster roll required to bemaintained under Section 62 shall show correctly full Particularsof periods within which each suc workers may b required towork. The entries in the register or muster roll sha beup-to-date.
4.	64(2)(b) and 64(3)	(i) all factories	Work performed on the steam of water pipes orpumps of a factory	Section 51, 54, 55, 56 and 61	Register or muster roll required to be maintainedun section 62 shal show correctly full particulars of periodswith which each suc worker may be required to work. Theentries in the register or muster roll sha be up-to-date.
	(ii) Cotton Spinning and Weaving Mills	Work involved in cleaning blow room flues.	Section 51, 54, and 56.	(a) No worker shall be allowed to	

				work for morethan fifty one hours in one week.(b) No workers shall beallowed to worked in such manner that the spread over exceeds tenand a half hours except on one day in a week previously notifiedto the Inspector when it shall not exceed twelve hours.	
5.	64(2)(b)	Dying and bleaching factories ordepartments	Work performed by kiermen	Section 51, 54, and 56	The intervals f food and rest totaling onehours, if working hours exceeds eight and a half in a day or halfan hour, in worki hours do not exceed eight a half hour shallbe given t each worker

					every day and the register of muster rollmaintained in accordance with Section 6 small show correctly theperiod of work of each worker.
6.	64(2)(b)	Cloth printing factories or departmentof factories carrying on printing sanforizing and mercerizing ofcloth.	Work in the nature of preparatory orcomplementary to main operations.	Section 51, 54, and 56.	-do-
7.	64(2) (b)	Cloth printing factories ordepartments of factories and bleaching, raising, finishing,mercerizing, dyeing, sizing and sanforizing deptt, of thefactories.	All work	Section 55.	Workers shall be allowed to work on shift o nolonger than eight hours duration.
8.	64(2)(b)	All factories other cotton—spinningand weaving mills	(a) Work-performed by oilers and(b) Work inmechanic shops, smithies or foundries so far as such work iscomplementary to the main operations.	Section 51, 54 and 56	This exemptio shall not apply:-(I) in thecase of wor performed by oilers, where there workers thefactories in which the wor have been exempted from theprovisions section 52 or 5 and(ii) to the work in themechanic shop, smithy o foundry portio of Engineering

					Workshopor to a smithy or foundry used solely as such.
9.	64(2)(d) 64(3) and 64(4)	Oil Tank Installation	Work performed by workers in connection withpumping operations.	Section 51,52, 54, 55, 56 and 61	(a) Intervals fo food and rest shall be given toall workers allowed to wor on such work .(b) A compensatory period of at lea twenty four consecutive hours shall begiven to each worker after th cessation of th pumpingopera continuing afte 10. p.m.(c) Notice of suchpumping operations wit the number of workers allowe to workshall be sent to the Inspector as soon as possib aftercommenc of such work.
10.	64(2)(d) and 64(4)	Public electricity supply factoriesgenerating electricity in any manner and those engine rooms andboilers departments generating electricity in any manner fortheir own use employing worker on shifts of not more than eighthours each.	Operations and Maintenance of -(i) Primemovers and auxiliaries generators transformers and switchgear;(ii) Boilers and auxiliaries	Section 51m 52m 54m 55 and 56	(a) The worker shall be allowe to work on shiftof no long than eight hou duration.(b) In the absence of workers who has failed to report for duty a shift worker

manybe allowe
to work the
whole or part o
a subsequent
shiftprovided
that the next
shift of the shi
provided that
the nextshift o
the workers
shall not
commence
before a period
of 16hours has
elapsed after th
(Specified)
stopping time
theshift to
which the
worker
belongs.(c) No
worker shall
beallowed to
work for more
than fifty six
hours in any
week exceptth
when employe
as in
condition;(d)
Above, he shal
not beallowed
work for more
than sixty four
hours.(e)
suchworkers
shall be allowe
not less than
two holidays in
eachperiod
covered by fou
consecutive
statutory facto
holidays

11.	64(2)(d)&64(4)	Electrical receiving stations andsubsection or in any factory, the departments of the factoryreceiving and distributing electrical energy for the use of thefactory.	Operations and maintenance of transformers andtheir auxiliaries including receiving and distributing switchgear lighting, arresting, synchronous and other condensers androtary and static condensers.	Section 51, 52, 54, 55 and 56.	As in exemptio No. 10
12	-do-	Factories or department of factoriescharging electrical accumulators.	Operations in connection with charging electricalaccumulators.	Section 51, 52, 53, 54, 55 and 56.	As in exemptio No. 10.
13.	-do-	Distilleries	Work on the extraction of sugar from variousbasis fermentation of sugar juice and distillation of fermentedwash	-do-	-do-
14.	64(2)(d) & 64(4)	Sugar factor.	Operations beginning with receiving andweightment of cane and ending with bagging of sugar	As in exemption No. 13	As in exemptio No. 13
15.	-do-	Chemical factories.	All continuous process work.	Sections 51, 52, 54, 55 and 56.	-do-
15A.	-do-	Chemical factories.	All continuous process work.	Section 51, 52, 54, 55 and 56.	-do-
16.	-do-	Rayon and Synthetic Fibre factories	The Work viz. Refining, bleaching filteringgeneration of hydrogen, hydrogenating and deorishing procesesalso compression of oxygen and the cylinder filling.	-do-	-do-
17.	64(2)(d) &64(4)	Magnesium chloride factories.	The work on cent rating process	As in exemption No. 16.	As in exemptio No. 16.
18.	-do-	Public pumping and compressorstations.	All work.	-do-	-do-

19.	-do-	Water supply pumping factories ofrailway workshops.	All works..	-do-	-do-
20.	-do-	Ice Factories.	Work of the engine and compressor drivers andassistants and oilersi	-do-	-do-
21.	-do-	Carbonic acid gas work.	Work of firemen, pump men, plant drivers, oilersand the filing of cylinders.	-do-	-do-
22.	64(2)(b)	Carbonic acid gas work.	Work firemen to light lye boiler	Section 51, 54 and 55	These exemptions shall be availed ofonly one day when plant is restarted after closure.
23.	64(2)(d) & 64(4)	Carbonic acid gas solidificationworks.	All work except packing blocks.	Section 51, 52, 54, 55 and 56	As in exemptio 10.
24.	-do-	Oxygen factories	Engine and plant drivers, oilers and filling ofcylinders.	-do-	-do-
25.	-do-	Coal gas factories and departments.	All work in the retorate house an on the watergas plant, work of the male yard labour feeding hoppers andremoving coke, work on the syphnoes, boilers station meters andgovernors.	Section 51, 52, 54, 55 and 56.	As in examination N 10.
26.	-do-	Hydraulic pumping stations.	All work.	-do-	-do-
27.	-do-	Paper Cardboard and straw boardfactories working on there hours shift system	Work performed by male adults workers onchoppers, strainers and washers, reaters. Paper making machinespulping plants, reellers and cutters, kheeders and dig-esters	-do-	-do-
28.	64(2) & 64(4)	Cement factories and	All work on continuous	Section 51,	As in

		asbestos cementfactories.	process units	52, 54, 55 and 56.	exemptions No 10
29	-do-	Glycerin factories.	All continuous process work.	-do-	-do-
30.	-do-	Dextrine manufacturing factories.	All continuous process work.	-do-	-do-
31.	-do-	Acetylene factories.	Generation of gas and filling of cylinders	-do-	-do-
32.	-do-	Starch factories working in 8 hoursshifts.	All work except the engineering department andworkshops.	-do-	-do-
33.	-do-	Potassium chloride factories.	Work in the cell room.	-do-	-do-
34.	64(2)(d) & 64(4)	(I) Ferrous & non Ferrous metalfactories.	All work in furnace	Section 51, 52, 54, 55 and 56.	As in exemptio No. 10.
(ii) -do-	Hot rolling	Section 55	Workers small be allowed to work onshifts not longer than eight hours duration		
35.	-do-	Sodium Potassium bicromate factories.	Work on furnace and crystallisers	Section 51, 52, 54, 55 and 56.	As in exemptio No. 10
36.	-do-	Oil Mills..	All continuous process work.	-do-	-do-
37	-do-	Flours Mills.	All work.	-do-	-do-
38.	64(2)(b)	(i) Gur Factories	The work performed by workers in crushing Sugarcane	Section 51, 52, 54, 55 and 56	As in exemptio No. 10
64(2)(b) and 64(3)	(ii) Gur Factories	All other work except crushing sugar cane.	Section 51, 54, 55 and 61.	A notice showing the periods of workof the crusher shall be exhibited in the factory and a copy shallbe sent to the Inspector.	

39.	64(2)(d)	Cement Tiles Factories	Work on the “curing” tiles	Section 51, & 52	(a) No worker shall be allowe to workfor mo than four hour or any of the weekly holidays.(b) Noworker shal be allowed to work on consecutive weeklyholiday No workers shall be allowe to work in excess oflimits of weekly hour of work as laid down in Sectio 51 exceptdurin the week when the worker wo on a weekly holidays as in(above and whe his total hours of work may b allowed toexceed the weekly limit la down in sectio 51 by the number ofhou not exceeding worked on the weekly holiday
40.	64(2)(c) and 64(3)	Salt factories.	Work performed by “Baramasees” onSalt Kyars	Section 51, 54, 55, 56 and 61	(a) Intervals fo food and rest shallbe given t all workers allowed to wor on such work.(b)Regist on muster roll

					required to be maintained under section6 shall show correctly full particulars of period withing whicheach suc worker may be required to work; entries i register ormuster roll shall be up to date.
41.	64(2)(g) and 64(3)	Salt factories	All workers	Section 52 and 55	No worker sha be allowed to work onconsecutive weekly holiday
42.	64(2) (g) and 64(3)	Rice Mills	All persons employed in drying, lifting andstoring of paddy.	Section 52 and 55	No worker sha be allowed to work onconsecutive weekly holiday
43.	64(2)(d) and 64(4)	Glass Factories	All work except packing work in EngineeringDepartment	Section 51, 52, 54, 55 and 56.	As in Exemptio No. 10
44.	64(2) (g) and 64(4)	Smelting & Refining factories	(I) Work on the reducing furnace	Section 55	(a) the workers shall be allowe towork on shif of not longer than eight hou duration.
(ii) All continuous process work in Electrolyticrefining factories.			(b) Intervals for food and rest shall be given toall workers allowed to work on such work		
45.	64(2) (d) and 64(4)	Rubber Tyre factories	All work on curing process	Section 51, 54, 55 and 56	(a) The worker shall be allowe towork on shif

					of not longer than eight hou duration.
		(b) in the absence of a worker who hasfailed to report for duty, a shift worker may be allowed to workthe whole or part of a subsequent shift worker shall not commencebefore period of 16 hours has elapsed after the (specified)stopping time of the shift to which the worker belongs.			
46.	64(2)(d)	Soap factories	Work on soap boiling pans and soapdying pans	Section 55	Workers shall be allowed to work onshift o not longer tha eight hours duration.
47.	64(2)(d)	Pottery work	(I) Work of fireman on Kilns	Section 55	(a) Workers shall be allowe to workon shif of not longer than eight hou duration.
(ii) Work on tunnel Kilns	Section 52 & 55	(b) No worker shall be allowed to workon consecutive weekly			

		holidays.			
48.	64(2)(d)	Brick Factories	Work of fireman Kilns.	Section 55	As in exemptions No 46
49.	64(2)(d)	Plastic Factories	Work of Plastic injection machines & Plasticextruding machines	Section 55	-do-
50.	64(2)(d)	Pharmaceutical Factories	All continuance process work.	Section 55	-do-
51.	-do-	All factories	Telephone operators.	Section 55	The intervals f food and resttotaling on hour if workin hours exceed eight and a hal in aday or half an hour if working hours does not excee eight andhalf hours shall be given to each worker every day and the samenoted in the register or muster roll maintained in accordancewit section 62.
52.	64(2)(c)	News paper printing press	(a) All work on daily news paper.	Section 51, 54, 55 & 56	(a) No worker shall be allowe to workfrom more than 56 hours in any week.
(b) All work on weekly news paper			(b) No overtimes shall be carries onexcept for two days prior to the		
53.	64(2)(I)&64(3)	All factories.	Loading and unloading of Railway Wagons Lorriesand Trucks.	Section 51, 52, 54, 55 , 56 &61.	Exemption fro section 61 may beavailed of

					provided that every worker a the end of the day'swork is supplied with a note showing the total No. of hours ofwork put in by such worker.
55.	64(2)(d)	Cycle manufacturing factories	Work in coloring and enamelings section and Semiautomatic plating plant	Section 55	As in exemptions No 46
56.	64(2)(d)	Chemical product factories	Process of manufacturing activated carbon.	Section 51, 52, 54, 55 and 56.	(a) the Worker shall be allowe towork on Shif of not longer than eight hou duration.(b) Noworker shal be allowed to work in such a manner that th spreadover exceeds twelve hours in any da and this shall bepermissible only in cases when a shift reliever workin oncontinuous process does n attend at the correct time andalternative relief can not b arranged.(c) N worker shall beallowed to work more tha fifty six hours i any week excep

					thatwhen employed as in condition (b) above he shall mot b e allowedto work for more than sixty four hours in any week.(d) Suchworker shall be allowed not less than two holidays in each periodcovered by four consecutive statutory holidays.
57.	64(2)(d) & 64(4)	Power Cables factories	Work on impregnation of paper insulated laid upcables	Section 51, 52, 54, 55 & 56.	As in exemption No. 10.
	-do-	Work on wire annealing furnace, lead sheating andarmoring.		Workers shall be allowed to work oneshift not longer than eight hours duration.	
58.	64(2)(d)	Cotton spinning & Weaving Mills	Work n hot air sizing machines.	Section 55	(i) Workers Shall be allowed to workone shift of not longer than eight hours duration.(ii)Workers shall be given specified rest intervals for food andrest.
59.	64(2)(d)&64(3)	All factories	Work of automatic equipment engaged	Section 51, 52, 54, 55,	The limits of work inclusive

			ingalvanizing anodizing and enameling wire platening packing, hotdrop galvanizing and stores relating.	56, 56, 58,& 61	ofovertime sha not exceed tho mentioned in subsection (4) ofsection 64.
60.	64(2)(k)	Any factory, class or description offactories as may be notified by the State Government in theGovernment in the official Gazette.	Work of national importance as may be notified bythe State Government in the official Gazette.	Section 51, 52, 54, 55 & 56.	The limits of work inclusive ofovertime sha not exceed tho mentioned in subsection (4) ofsection 64.
61.	64(2)(d)	Enameling wire manufacturing factory.	Work Enameling wires.	Section 51, 54, 55 & 56	(a) The worker shall be allowe towork one shi of not longer than eight hou duration.(b) Inthe absence a worker who has failed to report for duty ashift worker may be allowed to work the whole or part o asubsequent shift provided that the next shift of the shi workershall no be commence before a period of 16 hours has elapsedafter th (specified) stopping time the shift to which theworker belongs.(c) No worker shall be allowed to wor formore than

					fifty six hours i any one week except that whenemployed in condition (b above he shall not be allowed to workfor mo than sixty four hours in any o week.
62.	64(2)(d)	Dairy Plants manufacturing Dairyproducts like skimmed milk powder, whole milk Powder, baby food,Ghee & butter etc.	The work of adult male workers employed in dairyfactories other than those engaged in printing and in themanufacturing of containers for milk, cream Ghee's and buttershould be deemed to be the nature of referred to in clause (e) ofsub-section (2) of section 65 of the Act.	Section 51, 52, 54, 55 & 56.	1. No such workers shall b allowedfor mo than 8 hours o Sunday .2. No such worker shall beemployed fo more than 14 consecutive da without holida of 24days of 24 consecutive hours.3. Every such worker shall begiven a compensatory holiday in accordance wit section 53 of theAct.4. No exemptions shall be given from the provisions ofse3ction 59 t the workers wh are exempted from the provisionsof section 51, 54, 55 & 56.
63.	64(2) & 64(4)		All continuous process.	Section 55	

	Aluminium and Copper foil manufacturingfactories.	As in exemptions No 10.

The following shall be considered to be urgent repairs: (a)Repairs to any part of the machinery, plant or structure or a factory which are of such a nature that delay in their execution would involve danger to human life or safety or the stoppage of manufacturing processes.(b)Break down repairs to the motive power, transmission or other essential plant of other factories, collieries, railways, dockyards, harbours, tramways, transport, gas, electrical generating and transmission pumping or similar essential or public utility services carried out in general engineering works and foundries and which are necessary to enable such concerns to maintain their main manufacturing processes production or services during normal working hours.(c)Repairs to deep sea ships and repairs to commercial air crafts done in a factory which are essential to enable such ships, air crafts to leave post at proper time or continue their normal operations in a sea or air worthy condition as the case may be.(d)Repairs in connection with a change of active power from steam to electricity or vice versa, when such work cannot possibly be done without stoppage of the normal manufacturing process.

2. Periodical cleaning not included in the terms "examining" or "repairing".

Chapter VII
Employment of Young Persons

Notice prescribed under sub-section (3) of section 72

90. Notice of periods of work for children. The notice of periods of for child workers shall be in Form No. 14.

Register prescribed under sub-section (2) of section 73

91. Register of child workers. The Register of child workers shall be in Form No. 15.

This Register shall be written up afresh each year and shall be preserved for a period of 12 months from the date of last entry in it.

Chapter VIII
Leave With Wages

Rules 92 to 99 prescribed under Sections 83 and 112

92. Leave with Wages Register. (1) The Manager shall keep a Register in Form No. 16 hereinafter called the Leave with Wages Register:

Provided that if the Chief Inspector is of the opinion that any muster-roll or register maintained as part of the routine of the factory, or return made by the Manager, gives, in respect of any or all of the workers in the factory, the particulars required for the enforcement of Chapter VIII of the Act, 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 Leave with Wages Register shall be preserved for a period of three years after the last entry in it and shall be produced before the Inspector on demand.

93. Leave book. (1) The Manager shall provide each worker who has become entitled to leave during a calendar year with a book in Form No. 17 (hereinafter called the Leave Book) not later than 31st January of the following calendar year. The Leave Book shall be the property of the workers, and the Manager or his agent will not demand it except to make entries of the date, holidays, or interruptions in service, and shall not keep it for more than a week at a time:

Provided that in case of a worker who is discharged or dismissed form Service during the Course of the year i.e. who is covered under sub-section (3) of section 79 of the Factories Act, 1948, the Manager shall issue an abstract from the 'Register of leave with Wages" in (Form No. 16) within a week from the date of discharge or dismissal, as the case may be.(2)If a worker loses his Leave Book, the Manager shall provide him with another copy on the payment of 15 naya paise and shall complete it from his record.

94. Medical Certificate. If a worker is absent from work due to his illness and he wants to avail himself of the leave with wages due to him to cover the whole or part of the period of his illness under the provisions of clause (7) of section 79 of Chapter VIII, as revised by the Factories (Amendment) Act, 1954, he shall, if required by the Manager, produce a Medical Certificate signed by a registered Medical Practitioner or by a registered or recognised Vaid or Hakeem stating the cause of absence and the period for which the worker is in the opinion of such Medical Practitioner, Vaid or Hakeem, unable to attend to his work, or other reliable evidence to prove that he was actually sick during the period for which the leave is to be availed of.

95. Notice to Inspector of involuntary unemployment. The Manager shall give, as soon as possible, a notice to the Inspector of every case of involuntary unemployment of workers, giving numbers of unemployed and the reason for their unemployment. Entries to this effect shall be made in the Leave with Wages Register and Leave Book in respect of each worker concerned.

96. Notice by workers. Before or at the end of every Calendar year, a worker, who may be required to avail of leave in accordance with sub-section (8) of section 79 of the Factories Act, 1948, may give notice to the Manager of his intention not to avail himself of the leave with wages, failing during the following calendar year. The Manager shall make an entry to that effect in the Leave with Wages Register and in the Leave Book of the worker concerned.

97. Notice of leave with wages. (1) Except in regard to a worker who has given notice of his intention not to avail himself of leave with wages in the calendar year in which these fall due, the Manager shall by a notice displayed at the place at which the notice of the periods of work required by section 61 is displayed, fix the dates on which leave with wages shall be allowed to each worker or group of workers including any worker who has accumulated his leave. This date shall not, in an individual case, be earlier than four weeks from the date of notice unless the worker agrees to take the leave earlier. The necessary entries shall be made in the Leave with Wages Register and the Leave Book of the worker concerned.

(2)As far as circumstances permit, members of the same family, comprising husband, wife and children shall be allowed leave on the same date.(3)The Manager may alter the dates fixed for leave only after giving a notice of four weeks to the worker.(4)a worker may exchange the period of his leave with another worker subject to the approval of the Manager.

97A. Cash equivalents of concession earned during leave. The cash equivalent of the advantage occurring through the concessional sale of food grains and other articles payable to workers proceeding on leave shall be the difference between the value at the average rates in the nearest market prevailing during the month immediately preceding his leave and the value at, the concessional rates allowed of food grains and other articles he is entitled to.

For the purpose of the cash equivalent monthly average market rate of food grains and other articles shall be computed at the end of every month.

98. Payment of wages, if the worker dies.

If a worker dies before he resumes work, the balance of his pay, due for the period of leave with wages not availed of shall be paid to his nominee within one week of the receipt of intimation of death of the worker. For this purpose, each worker shall submit a nomination in the Form No.18 duly signed by himself and attested by two witnesses. The nomination shall remain in force until it is cancelled or revised by another nomination.

99. Register to be maintained in case of exemption under section 84.

(1) Where an exemption is granted under section 84, the Manager shall maintain a register showing the position of each worker as regards leave due, leave taken and wages granted.

(2)He shall display at the main entrance of the factory, a notice giving full details of the system established in the factory for leave with wages and shall send a copy of it to the Inspector.(3)No alteration shall be made in the scheme approved by the State Government at the time of granting exemption under section 84 without its previous section.

Chapter IX
Special Provisions

Rule prescribed under Section 87

100. Dangerous [manufacturing process or operation]. [Substituted by No. I-A. dated 14.7.1979 [2-8-79].] -

(1)The following [manufacturing process or operation] [Substituted by No. I-A. dated 14.7.1979 [2-8-79].] when carried on in factory are declared to be dangerous [manufacturing process or operation] [Substituted by No. I-A. dated 14.7.1979 [2-8-79].] under section 87 :

1. Manufacture of aerated water and processes incidental thereto.

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

3. Manufacture and repair of electric accumulators.

4. Glass manufacture.

5. Grinding or glazing of metals.

6. Manufacture and treatment of lead and certain compounds of lead.

7. Generation of gas from dangerous petroleum, as defined in Petroleum Act, 1934 (Central Act 30 of 1934).

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

9. Lining and tanning of raw hides and skins and processes incidental thereto.

10. Manufacture of chemical and processes incidental thereto.

11. Manufacture of pottery and processes incidental thereto.

12. Printing presses and type foundries-certain lead processes carried therein.

13. Manufacture of bangles and other articles from cinematograph film and toxic and inflammable solvents.

14. Compression of oxygen and hydrogen produced by the Electrolysis of water.

15. Handling and processing of Asbestos, manufacture of any article of Asbestos and any other process of manufacture or otherwise in which Asbestos is used in any form.

16. Manufacture of articles from refractory materials including manufactures of refractory brick.

17. Handling and Manipulation of corrosive (liquids and substances).

18. Manufacture of Manipulation of Carcinogenic Dye Intermediates.

19. Process of extracting vegetable oils from oils from oil cakes insolvent Extraction Plant.

20. Manufacture or Manipulation of manganese and its compounds.

21. Manufacture, handling and use of Benzene.

22. Carbon Disulfide Plants.

23. Manufacture and Manipulation of Dangerous Pesticides.

24. [Operations involving high Noise levels. [Inserted by No.4. dated 8.1.1991 [25-6-1992].]

25. Manufacture of Rayon by Viscose Process.

26. Highly Flammable Liquid and Flammable Compressed Gases.

27. Operation in Foundries.]

28. [Fire Works Manufactories and Match Factories.] [Inserted by G.S.R. No.49, dated 8.8.2002.]

(2)The provisions specified in the Schedules annexed hereto shall apply to any class or description of factories wherein dangerous [manufacturing process or operation] [Substituted by No.1-A. dated 14.7.1979 [2.8.1979].] specified in each Schedule are carried out.(2A)[(a) for the medical examination of workers to be carried out by the certifying surgeon as required by the schedule annexed to this rule, the occupier of the factory shall pay fees at the rate of Rs.10/per examination of each worker every time he is examined;(b)the fees prescribed in sub-rule (2A) 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 payable by the occupier.(c)the fees to be paid for medical examination shall be paid into the local treasury under the head of account "087 -Labour & Employment, Fees realised under the Factories Act.][Inserted by No.1-A, dated 14.7.1979 [2-8-1979].](3)[x x x][Omitted by No.1. dated 24.3.1979.](4)[Notwithstanding the provision specified in the schedules annexed to this Rule, the Inspector 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 removing conditions dangerous to the health of the

workers, or to suspend any process, where such process constitutes, in the opinion of the Inspector, imminent, danger of poisoning of toxicity."(5)Any register or record of medical examination and tests connection 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 & shell be preserved till the expiry of one year after the workers ceases to be in employment of the factory.][Added by No.3. dated 27.7.1987.]

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 siphons from striking any person employed in the factory,

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

(a)suitable face-guards to protect the face, neck and throat; and(b)suitable gauntlets for both arms to protect the whole hand and arms:Provided that (i)paragraph 2(1) shall not apply where bottles are filled by means of an automatic machine so constructed that no fragment of a bursting bottle can escape, and(ii)Where a machine is so constructed that only one arm of the bottle at work upon it is exposed to danger, a gauntlet need not be provided for the arm which is not exposed to danger.(2)The occupier shall provide and maintain in good condition for the use of all persons engaged in corking, crowning, screwing, wiring, foiling, capsuling, sighting or levelling bottles of 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 shall, while at work in such processes, wear the face guards and gauntlets provided under the provisions of the said paragraph.

II

(Electrolytic plating or Oxidation of Metal articles by use of an Electrolytes containing chromic acid or other chromium compounds)

1. Definitions. For the purposes of this Schedule

(a)"Electrolytic chromium process" means the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing chromic acid or other chromium compounds.(b)"Bath" means any vessel used for an electrolytic chromium process or for any subsequent process.(c)"Employed" means in paragraphs 5, 7, 8 and 9 of this Schedule, employed in any process involving contact with liquid from a bath.(d)[x x x] [Omitted by No. 4, dated 8.1.1991[25-6-92].]

2. Exhaust draught. 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. The exhaust draught appliance shall be so constructed, arranged and maintained as to prevent the vapour or spray entering into any room or place in which work is carried on.

3. Prohibition relating to women and young persons. No woman, adolescent or child shall be employed or permitted to work at a bath.

4. Floor of work-rooms. The floor of every room containing a bath shall be impervious to water. The floor shall be maintained in good and level condition and shall be washed down at least once a day.

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

(a)water-proof a prons and bibs, and(b)for persons actually working at a bath loose-fitting rubber gloves and rubber boots or other water-proof 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. Medical facilities and records of examination and test. (1) The occupier of every factory in which electrolytic chrome processes are carried on shall(a)employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical check up against the hazards involved and to diagnosis and treat the industrial disease which are likely to creep in such type of process.(b)provided to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a); and(c)maintain a sufficient supply of suitable ointment and impermeable water proof plaster in a separate box readily accessible to the workers and used solely for the purpose of keeping the ointment and the plaster.(2)The medical

practitioner shall examine all workers before they are employed in electrolytic chromo processes-Such examination shall include inspection of hands, fore arms and nose will be carried out a intervals of not more than one week.(3)The record of the examination referred to in sub-paragraph (2) shall be maintained in a separate resisters approved by the Chief Inspector of Factories which shall be kept readily available for inspection by the inspector.

7. Medical examination by the certifying Surgeon. (1) Every worker employed in the electrolytic chrome process shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for Chromium in urine and nasal septum perforation. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every three calendar months. Such re-examination shall, whenever the Certifying Surgeon considers appropriate, include tests as specified under sub-paragraphs (1).(3)The Certifying Surgeon after examining a worker shall issue a certificate of Fitness in Form 30. The record of examination and re-examinations carried out shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in health register in Form No.19A.(4)The certificate of fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground the 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 this findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.(6)No person who has been found unfit to work as said in subparagraph (5) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes].[Paras 6 & 7 substituted by No.4, dated 8.1.1991 [25-6-1992]]

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

9. [x x x]

[Omitted by No. 4 dated 8.1.1991 [25-6-92]]

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 leads or to the repair on the premises, of any accumulator forming part of a stationery battery.

2. Definitions. For the purposes of this Schedule

(a)"Lead process" means the melting of lead or any material containing lead, casting, pasting, lead burning, or any other work, including trimming, or any other abrading or cutting of pasted plates involving the use, movement or manipulation of, or contact with, any oxide of lead.(b)"Manipulation of raw oxide of lead" means any lead process involving any manipulation or movement of raw oxides of lead other than its conveyance in a receptacle or by means of an implement from one operation to another.(c)[x x x] [Omitted by No. 4, dated 8.1.1991[25-6-92]]

3. Prohibition relating to women and young persons. No women or young 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 effectual separation from one another, and from any other process:

(a)Manipulation of raw oxide of lead:(b)Pasting:(c)Drying of pasted plates:(d)Formation with lead burning ("tacking") necessarily carried on in connection therewith;(e)Melting down of pasted plates.

5. Air space. In every room in which a lead process is carried on, there shall be at least [14 cubic metres] [Substituted by No.1, dated 24.3.1979.] of air space, for each person employed therein, and in computing this air space, no height over [3.5 metres] [Substituted by No.1. dated 24.3.1979.] shall be taken into account.

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

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

[Substituted by No.1, dated 24.3.1979.]

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

(a)of cement or similar material so as to be smooth and impervious to water:(b)maintained in sound condition;(c)kept free from materials, plant, or other obstruction not required for, or produced in, the process carried on in the room.(2)In all such rooms other than grid casting shops, the floor shall be cleaned 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 cleaned 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:(c)thoroughly washed daily by means of a hose pipe.

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

(a)have a smooth surface and be maintained in sound condition:(b)be kept free from all materials or plant not required for, or produced in, the process carried on threat: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 ousting shops, shall (d)be cleansed daily:and every work-bench used for pasting shall (e)be covered throughout with sheet lead or other impervious material;(f)be provided with raised edges:(g)be kept constantly moist while pasting is being carried on.

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

(a)Melting of lead or materials containing lead;(b)Manipulation of raw oxide of lead, unless done in an enclosed apparatus so as to prevent the escape of dust into the work-room;(c)Pasting;(d)Trimming, brushing, filing or any other abrading or cutting of pasted plates giving rise to dust;(e)Lead burning, other than(i)'tacking' in the formation room;(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.Such exhaust draught shall be effected by mechanical means and shall operate on the dust or fume given off as nearly as may be at its point of origin, so as to prevent it entering the air of any room in which persons work.

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

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

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

14. Racks and Shelves in drying room. The racks or shelves provided in any drying room shall not be more than [240 cms.] [Substituted by No.1, dated 24.3.1979.] from the floor not more than [60 cms.] [Substituted by No. 1. dated 24.3.1979.] in width: Provided that as regards racks or shelves set or drawn from both sides the total width shall not exceed [120 cms.].

[Substituted by No.1, dated 24.3.1979.]Such racks or shelves shall be cleaned only after being thoroughly damped unless an efficient suction cleaning apparatus is used for this purpose.

15. [Medical facilities and records of examinations and tests. The occupier of every factory in which manufacture and repair of electric accumulators is carried on shall

(a)employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough Medical check up against the hazards likely to creep in such type of process; and(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in separate registers approved by the Chief Inspector of Factories, which shall he kept readily available for Inspection by the Inspector.][Substituted by No.4, dated 8.1.1991 [25-6-1992]]

15A. [Medical examination by Certifying Surgeons. (1) Every worker employed in lead processes shall be examined by the Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for lead in urine and blood, ALA in urine, haemoglobin content, stippling of cells and steadiness test. No worker shall be allowed to work after 15 days of

his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every three calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests specified in sub-paragraph-(l).(3)The Certifying Surgeon after examining a worker, shall issue a certificate of fitness in Form No.30. The record of examination and re-examinations carried out shall be entered in the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in the Form 19.(4)The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.(6)No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those process.][Substituted by No.4, dated 8.1.1991 [25-6-1992]]

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

(a)manipulation of raw oxide of lead:(b)pasting:(c)the formation room;and such clothing shall be worn by the persons concerned. The protective clothing shall consist of a water-proof apron and water-proof footwear, and, also, as regards persons employed in the manipulation of raw oxide of lead or in pasting, head coverings. The head coverings shall be washed daily.

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

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

18. Cloak-room. There shall be provided and maintained for the use of all persons employed in a lead process

(a)a cloak-room for clothing put off during working hours with adequate arrangements for drying the clothing if wet. Such accommodation shall be separate from any mess-room:(b)separate and suitable arrangements for the storage of protective clothing provided under paragraph 16.

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

(a)a wash place under cover, with either(i)a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow of at least [60 cms.] [Substituted by No. 1, dated 24.3.1979.] for every five such persons employed at any one time, and having a constant supply of water taps of jets above the trough at intervals of not more than [60 cms.] [Substituted by No.1. dated 24.3.1979.] ; or(ii)at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water laid on:(iii)a sufficient supply of clean towels made of suitable materials renewed daily, which supply, in the case of pasters and persons employed in the manipulation of raw oxide of lead, shall include a separate marked towel for each such worker: and(iv)a sufficient supply of soap or other suitable cleansing materials and of nail brushes.(b)There shall in addition be provided means of washing in proximity to the rooms in which manipulation of raw material of lead or pasting is carried on if required by notice in writing from the Chief Inspector.

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

Provided that if there be one basin or [60 cms.] [Substituted by No. 1, dated 24.3.1979.] of trough for each such person this paragraph shall not apply.

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

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

IV

(Glass Manufacture)

1. Exemption. If the Chief Inspector is satisfied in respect of any factory or any class of process that, owing to the special methods of work or the special conditions in a factory or otherwise, any of the requirements of this

Schedule can be suspended or relaxed without danger to the persons employed therein, or that the application of this Schedule or any part thereof is for any reason impracticable, he may by certificate in writing authorise such suspension or relaxation as may be indicated in the certificate for such period and on such conditions as he may think fit.

2. Definitions. For the purposes of this Schedule

(a)"Efficient exhaust draught" means localised ventilation effected by mechanical means for the removal of gas, vapour, dust or fumed 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 weight 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 sulfide and weighted as lead sulfate.(c)[x x x] [Delelted by No. 4 dated, 8.1.1991[25-6-92]]

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

(a)The mixing of raw materials to form a "batch".(b)The dry grinding, glazing and polishing of glass or any article of glass.(c)All processes in which hydrofluoric acid fumes or ammoniacal vapours are given off.(d)All processes in the making of furnace molds or 'pots' including the grinding or crushing of used 'pots'.(e)All processes involving the use of a dry lead compound.

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

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

The floors shall be (a)of cement or similar material so as to be smooth and impervious to water;(b)maintained in sound condition; and(c)cleansed daily after being thoroughly spread with water at a time when no other work is being carried on in the room.The work-benches shall (a)have a smooth surface and be maintained in sound condition, and(b)be cleansed daily either after being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on thereat.

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

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

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

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

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

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

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

(a)a wash place with either(i)a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow of at least [60 cms.] [Substituted by No. 1. dated 24.3.1979.] for every five such persons employed at any one time and having a constant supply of water from tapes or jets above the trough at intervals of to more than 2 feet; or(ii)at least one wash-basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having an adequate supply of water laid on or always readily available: and(b)a sufficient supply of clean towels made of suitable material renewed daily with a sufficient supply of soap or other suitable cleansing material and of nail brushes, and(c)a sufficient number of stand pipes with taps-the number and location of such stand pipes shall be to the satisfaction of the Chief Inspector.

12. [Medical facilities and record of examination and tests. (1) The occupier of every factory in which glass manufacturing processes are carried out, shall

(a)employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable for virtue of his qualification, training and experience, conducting a thorough medical check up against the hazards involved and to diagnose and treat the industrial diseases which are likely to creep in such type of processes; and(b)provided to the said medical practitioner the necessary facilities for the purpose referred to in clause (a).(2)The records of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector."][Substituted by No.4. dated 8.1.1991 [25-6-199]]

12A. [Medical examination by Certifying Surgeon. (1) Every worker employed in processes specified in paragraph 2 shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include pulmonary function test and in suspected cases chest X-rays as well as test for lead in urine. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said processes shall be reexamined by a Certifying Surgeon at least once in every twelve calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include test as specified in sub-paragraph (1).(3)The Certifying Surgeon after examining a worker shall issue a Certificate of Fitness in Form No.30. The record of Examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the Factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in Form 19.(4)The certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of worker, he shall make

a record of his finding in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.(6)No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.][Added by No.4, dated 8.1.1991 [25-6-1992]]

V

(Grinding or Glazing of Metals and Processes Incidental thereto)

1. Definitions. For the purposes of this Schedule

(a)"Grindstone" means a grindstone composed of natural or manufactured sandstone but does not include a metal wheel or cylinder into which block of natural or manufactured sandstone are fitted.(b)"Abrasive wheel" means a wheel manufactured of bonded emery or similar abrasive.(c)"Grinding" means the abrasion, by aid of mechanical power, of metal, by means of grindstone or abrasive wheel.(d)"Glazing" means the abrading, polishing or finishing, by aid of mechanical power, of metal, by means of any wheel, buff, mop or similar appliance to which any abrading or polishing substance is attached or applied.(e)"Racing" means the turning up, cutting or dressing of a revolving grindstone before it is brought into use for the first time.(f)"Hacking" means the chipping of the surface of a grindstone by a hack or similar tool.(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. Exemptions. (1) Nothing in this Schedule shall apply to any factory in which only repairs are carried on except any part thereof in which one or more persons are wholly or mainly employed in the grinding or glazing of metals.

(2)Nothing in this Schedule except paragraph 4 shall apply to any grinding or glazing of metals carried on intermittently and at which no person is employed for more than 12 hours in any week.(3)The Chief Inspector may by certificate in writing, subject to such conditions as he may specify therein, relax or suspend any of the provisions of this Schedule in respect of any factory if owing to the special methods of work or otherwise such relaxation or suspension is practicable without danger to the health or safety of the persons employed.

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

(a)a hood or other appliance so constructed, arranged, placed and maintained as substantially to intercept the dust thrown off: and(b)a 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 drought sufficient to extract the dust:Provided that the Chief Inspector, may accept any other appliance that is, in his opinion, as effectual for the interception, removal and disposal of dust thrown off as a hood, duct and fan would be.

4. Restriction on employment on grinding operations. Not more than one person shall at any time perform the actual processes of grinding or glazing upon a grindstone, abrasive wheel or glazing appliance:

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

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

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

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

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

8. [Medical facilities and record of examinations and tests.]- (1) The occupier of every factory in which grinding or glazing of metals are carried out, shall,

(a)employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience: conducting a thorough medical checkup against the hazards likely to creep in such type of processes. and(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in the separate register approved by the Chief Inspector of Factories which shall be kept readily

available for inspection by the Inspector.][Added by No.4, dated 8.1.1991[25-6-1992]]

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

(2)Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every 12 calendar months. Such re-examination shall, wherever he Certifying Surgeon considers appropriate, include tests as specified in sub-paragraph (1).(3)The Certifying Surgeon after examining a worker, shall issue a certificate of Fitness in Form 30. The record of examination and re-examinations carried out shall be entered in the certificate and theCertificates shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in Form No.19.(4)The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker he shall make a record of his findings in the said certificate and the health register. The entry of the findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.(6)No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed or permitted to work in the said processes unless the certifying surgeon, after further examination again certifies him fit for employment in those processes.]

VI

(Manufacture and treatment of lead and certain compounds of lead.)

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

2. Definitions. For the purposes of this 'Schedule,

(a)"Lead Compound" means any compound of lead other than galena which, when treated in the manner described below, 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 the "dry weight" means the dry weight of the material remaining after the substance has been thoroughly mixed and treated with suitable solvents to remove oil, fats, varnish or other media.The method of treatment shall be as follows: A weighted 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 sulfide and weighed as lead sulfate.(b)"Efficient exhaust drought" means localized 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 drought shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fumes or dust originate.

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

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

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

5. Requirements to be observed. No person shall be employed or permitted to work in any process involving the use of lead compounds if the process is such that dust or fume from a lead compound is produced therein, or the persons employed therein are liable to be splashed with any lead compound in the course of their employment unless the provisions of paragraphs 6 to 14 are complied with.

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

as closely as possible to the point of origin.

7. Certificate of fitness. A person medically examined under paragraph 8 and found fit for employment shall be granted by a Certifying Surgeon a certificate of fitness in Form No . 30 and such certificate shall be in the custody of the Manager of the factory. The certificate shall be kept readily available for inspection by any Inspector and the person granted such a certificate shall carry with him, while at work, a token giving reference to such certificate.

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

(2)If at any time the Certifying Surgeon is of opinion that any person is no longer fit for employment on the grounds that continuance therein would involve special danger to health, he shall cancel the special certificate of fitness of that person.(3)No person whose special certificate of fitness has been cancelled shall be employed unless the Certifying Surgeon, after re-examination, again certifies him to be fit for employment.

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

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

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

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

(a)trough with a smooth impervious surface fitted with a waste pipe without plug and of sufficient length to allow at least [60 cms.] [Substituted by No. 1 dated 24.3.1979.] 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 cms.] [Substituted by No. 1, dated 24.3.1979.]: or(b)at least one wash-basin for every ten persons employed at any one time, fitted with a waste-pipe and plug and having a constant supply of clean water;together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material and clean towels.(2)The facilities so provided shall be placed under the charge of a responsible person and shall be kept clean.

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

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

VII

(Generating petrol gas from petrol)

1. Prohibition relating to women and young persons. No woman or young person shall be employed or permitted to work in or shall be allowed to enter any building in which the generation of gas from dangerous petroleum as defined in the Petroleum Act, 1934 is carried on.

2. Flame traps. The plant for generation of gas from dangerous petroleum as defined in the Petroleum Act, 1934 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 as defined in the Petroleum Act, 1934 erected after the coming into force of the provisions specified in this Schedule, shall be erected outside the factory building proper in a separate well ventilated building (hereinafter referred to as the "generating building"). In the case of such plant erected before the coming into force of the provisions specified in this Schedule there shall be no direct communication between the 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 enerating rooms shall be constructed of fire-resisting materials.

4. Fire extinguishers. An efficient means of extinguishing petrol fires shall be maintained in an easily accessible position near the plant for generation of gas from dangerous petroleum as defined in the Petroleum Act, 1934.

5. Plant to be approved by Chief Inspector. Petrol gas shall not be manufactured except in a plant for generating petrol gas the design and construction of which has been approved by the Chief Inspector.

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

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

8. Access to petrol or container. No unauthorised persons shall have access to any petrol or to a vessel containing or having actually contained petrol.

9. Electric fittings. all electric fittings shall be of flame- proof construction and all electric conductors shall either be enclosed in metal conducts or be lead-sheathed.

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

11. Repair of containers. No vessel that has contained petrol shall be repaired in a generating room or building and no repairs to any such vessel shall be undertaken unless live stream 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.

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.

1. Definitions.

(i)"Blasting" means cleaning, smoothing, roughening, or removing of any part of the surface of any article by the use as an abrasive of a jet of sand, metal shot, or grit or other material, propelled by a blast of compressed air or steam.(ii)"Blast enclosure" means a chamber, barrel, cabinet or any other enclosure designed for, the performance of blasting therein.(iii)"Blasting chamber" means a blasting enclosure in which any person may enter at any time in connection with any work or other-wise.(iv)"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 sub-stance and includes the removal of cores and the general smoothing of a casting, but does not include the free treatment.

2. Prohibition of Sand Blasting. Sand or any other substance containing free silica shall not be introduced as an abrasive in to any blasting apparatus and shall not be used for blasting:

Provided that, this clause shall come into force two years after the coming into operation of this Schedule:Provided further that, no woman or young person shall be employed or permitted to work

at any operation of sand blasting.

3. Precautions in connection with Blasting Operations.

(1)Blasting to be done in blasting enclosure. Blasting shall not be done except in a blasting enclosure and no work, other than blasting and any work immediately incidental thereto and clearing and repairing of the enclosure including 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 air-tight while blasting is being done therein.(2)Maintenance of blasting enclosure. Blasting enclosure shall always to be maintained in good condition and effective measures shall be taken to prevent dust escaping from such enclosures, and from apparatus connected therewith, into the air of any room.(3)Provisions of separating apparatus. There shall be provided and maintained for and in connection with every blasting enclosure, efficient apparatus for separating so far as practicable. Abrasive which has been used for blasting and which is to be used again as an abrasive, from dust or particles of other materials arising from blasting and no such abrasive shall be introduced into any blasting apparatus and used for blasting until it has been so separated:Provided that this clause shall not apply, except in the case of blasting chambers, to blasting enclosures constructed or installed before he coming into force of this Schedule, if the Chief Inspector is of opinion that it is not reasonably practicable to provide such separating apparatus.(4)Provision of ventilating plant. There shall be provided and maintained in connection with every blasting enclosure efficient ventilating plant to extract, by exhaust drought effected by mechanical means, dust produced in the enclosure. The dust extracted and removed shall be disposed of by such method and in such a manner that it shall not escape into the air of any room; and every other filtering or settling device situated in a room in which persons are employed, other than persons attending to such bag or other filtering or settling device, shall be completely separated from the general air of that room in an enclosure ventilated to the open air.(5)Operation of ventilating plant The ventilating plant provided for the purpose of sub-clause (5) of clause (3) shall be kept in continuous operation whenever the blasting enclosure is in use whether or not blasting is a actually taking place therein and in the case of blasting chamber, it shall be in operation even when any person is inside the chamber for the purpose of cleaning or any repair work.

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

(2)Particulars of the result of every such inspection, examination and test shall forthwith be entered in a register which shall be kept in a form approved by the Chief Inspector and shall be available for inspection by any workman employed in or in connection with blasting in the factory. Any defect found on any such inspection, examination or test shall be immediately reported by the person carrying out the inspection, examination or test to the occupier, manager or, other appropriate

person and without prejudice to the foregoing requirements of this Schedule, shall be removed without available delay.

5. Provisions 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 any work connected therewith or in cleaning such a chamber, protective helmets of a type approved by a certificate of the Chief Inspector and every such person shall wear the helmet provided for his use whilst he is in the chamber and shall not remove it until he is outside the chamber.

(2)Each protective helmet shall carry a distinguishing mark indicating the person by whom it is intended to be used and no person shall be allowed or required to wear a helmet not carrying his mark or a helmet which has been worn by another person and has not since been thoroughly disinfected.(3)Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate or not less than 1(0.17 cubic metres] per minute.(4)Suitable gauntlets and overalls shall be provided for the use of all persons while performing blasting or assisting at blasting, and every such person shall while so engaged wear the gauntlet and overall provided.

6. Precautions in connection with cleaning and other work. -(1) Where any person is engaged upon cleaning of any blasting apparatus or blasting enclosure or of any apparatus of 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.

(2)In connection with any cleaning operation referred to in clause (5), and with the removal of dust from filtering or setting 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. [Medical facilities and records of examinations and tests. (1) The occupier of every factory to which the schedule applies shall,

(a)Employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical check up against the hazards involved and to diagnose and treat the industrial diseases which are likely to creep in such type of processes, and(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examination and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by

the Chief Inspector of Factories, which shall be kept readily available for Inspection by the Inspector].[Substituted by No.4. dated 8.1.1991 [25-6-1992]]

8. [Medical examination by Certifying Surgeon. (1) Every worker employed in the processes referred to in paragraph 1 shall be examined by a Certifying Surgeon within 15 days of this employment. Such examination shall include tests for lead in blood and urine, 'ALA' in urine, haemoglobin content, stippling of cells and steadiness test. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every three calendar months. Such re-examination shall, wherever the certifying surgeon considers appropriate include tests specified in sub-paragraph (1).(3)The Certifying Surgeon after examining a worker shall issue a certificate of Fitness in Form 30. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the Factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of the tests shall also be entered by the Certifying Surgeon in a health register in Form No.19.(4)The Certificate of Fitness and the health register shall be kept readily available for inspection by the inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said Certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.(6)No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes].[Substituted by No.4. dated 8.1.1991 [25-6-1992]]

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

9A. [Medical facilities and records of examinations and tests. (1) The occupier of every factory to which the Schedule applies, shall

(a)Employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical check up against the hazards involved and to diagnose and treat the industrial diseases which are likely to creep in such type of process, and(b)provide to the said medical practitioner all necessary facilities for the purpose referred to in 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 of Factories, which shall be kept readily available for Inspection by the

Inspector.

9B. Medical examination by Certifying surgeon. (1) Every worker employed in any of the processes to which this schedule applies shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include pulmonary function test and the chest X-ray. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said processes shall be reexamined by a Certifying Surgeon at least once in every 12 calendar months and such re-examination shall, wherever the Certifying Surgeon considers appropriate. include pulmonary function test and chest X-Ray once in every three years.(3)The Certifying Surgeon after examining a worker, shall issue a certificate of Fitness in Form No.30. The record of examination and re-examination carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the Manager of the Factory. The record of each examination carried under sub-paragraphs (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in Form No.19.(4)The Certificate of fitness and the health registers shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said Certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said process.(6)No person who has been found unfit to work in the said processes as said in sub-paragraph (5) above shall be re-employed or permitted to work unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.][Paras 9-A and 9-B, added by No. 4 dated 8.1.1991 [25-6-1992]]

10. Restriction in employment of young person. (1) No person under 18 years of age shall be employed in blasting or assisting at blasting or in any blasting chamber or in the cleaning of any blasting apparatus or any blasting enclosures or any apparatus or ventilating plant connected therewith or be employed on maintenance or repair work at such apparatus. enclosure or plant.

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

11. Power to exempt or relax. (1) If the Chief Inspector is satisfied that if 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 person employed or that application of any of such requirements is for any reason impracticable or inappropriate, he may, with the previous sanction of the State Government, by an order in writing exempt the said factory or class of factory from such provisions of this Schedule, to such an extent and subject to such conditions and for such period as may be specified in the said order.

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

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 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 shall be Oren 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 content of the notice specified in sub- paragraphs (1), (2) and (4) and if chrome solutions are used in the factory, the contents or 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)water-proof footwear, leg covering, 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-clauses (a) and (b):Provided that(i)the gloves, aprons, leg coverings or boosts, may be of rubber or leather but the gloves and boots to be provided under sub- clauses (a) and (b) shall be of rubber.(ii)the gloves may not be provided to persons flashing by hand or employed in processes in which there is no risk of contact with lime, sodium sulfate or other caustic liquor.

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

(a)a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least *[60 cms.] for every ten persons employed at any one time, and having constant supply of water from taps or jets above the trough at intervals not more than [160cms] [Substituted by No. 1, dated 24.3.1979.] ; or(b)at least one wash-basin, for every ten such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water; together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material, and clean towels.(c)a suitable mess room, adequate for the number remaining on the premises during the meal intervals, which shall be furnished with (1) sufficient tables and benches and (2) adequate means of warming food and for boiling water.The mess-room shall (1) be separate from any room or shed in which hides or skins are stored, treated or manipulated, (2) be separate from the cloak room and (3) be placed under the charge of a responsible person.(d)The occupier shall provide and maintain, for the use of all persons employed, suitable accommodation for clothing put off during working hours and another accommodation for protective clothing and shall also make adequate arrangements for drying up the clothing in both the cases, if wet. The accommodation so provided shall be kept clean at all times and places under the charge of a responsible person.

4. Food, drinks etc. prohibited in work-rooms. No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any work-room or shed in which hides or skins are store treated or manipulated.

5. [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 who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical check up against

the hazards involved and to diagnose and treat the industrial diseases which are likely to creep in such type of process;(b)provide to the said medical practitioner the necessary facilities for the purpose referred to in clause (a);(c)arrange for Inspection of the hands of all the persons keeping in contact with chromium substance to be made twice a week; and(d)Prove and maintain and supply suitable ointment and plaster in a box readily accessible to the workers and solely used for the purpose of keeping the ointment and the plaster.(2)The record of medical examination and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for Inspection by the Inspector].[Substituted by No.4, dated 8.1.1991 [25-6-1992]]

6. [Medical examination by Certifying Surgeon. (1) Every worker employed in any of these processes to which the schedule applies shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include skin test and dermatosis and detection of anthrax bacillus from local lesion by gram stain. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every twelve calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate include tests as specified in sub-paragraph (1).(3)The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form No.30. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and results of the tests, shall also be entered by the Certifying Surgeon in a health register in Form No.19.(4)The Certificate of fitness and the health register shall be kept readily available for Inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.(6)No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination; again certifies him fit for employment in those processes.][Added by No.4, dated 8.1.1991 [25.6.1992].][Schedule-X][Substituted by No.4. dated 8.1.1991 [25.6.1992].]Chemical WorksPart - I

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

2. Definitions. For the purpose of this schedule

(a)"Chemical Works" means any factory or such parts of any factory as are listed in Appendix 'A' to this schedule;(b)"efficient exhaust drought" means localised ventilation effected by mechanical or other means for the removal of gas, vapour, fume or dust to prevent it from escaping into the air of any place in which work is carried on:(c)"bleaching powder" means the bleaching powder commonly called chloride of lime;(d)"Chlorate" means chlorate or perchlorate:(e)"caustic" means hydroxide of potassium or sodium;(f)"Chrome process" means the manufacture of chromate or bichromate of potassium or sodium or the manipulation, movement or other treatment of these substances;(g)"nitro or amino process" means the manufacture of nitro or amino derivatives of phenol and of benzene or its homologues, and the making of explosives with the use of any of these substances;(h)The term "permit to work" system means the compliance with the procedures laid down under para 20 of part II;(i)"toxic substances" means all those substances which when they enter into the human body, through inhalation or ingestion or absorption through skin, in sufficient quantities cause fatality or exert serious affliction of health or chronic harmful effects on the health of persons exposed to it due to its inherent chemical or biological effects. In respect of substances whose TLV is specified in Rule 107 A, exceeding the concentration specified therein would make the substance toxic;(j)"emergency" means a situation or condition leading to a circumstance or set of circumstances in which there is danger to the life or health of persons or which could result in big fire or explosion or pollution to the work and outside environment, affecting the workers or neighbourhood in a serious manner. demanding immediate action;(k)"dangerous chemical reactions" means high speed reactions, run away reactions: delayed reactions, etc. and are characterised by evolution of large quantities of heat, intense release of toxic or flammable gases or vapours; sudden pressure build-up etc.:(l)"manipulation" means mixing. blending. filling, emptying, grinding, sieving, drying, packing, sweeping, handling, using; etc.:(m)"approved personal protective equipment" means items of personal protective equipment conforming to the relevant ISI specifications or in the absence of it, personal protective equipment approved by the Chief Inspector of Factories:(n)"appropriate personal protective equipment" means that when the protective equipment is used by the worker, he shall have no risk to his life or health or body: and(o)"confined space" means any space by reason of its construction as well as in relation to the nature of the work carried therein and where hazards to the persons entering into or working inside exist or are likely to develop during working.Part - IIGeneral requirementsApplying to all the works in Appendix "A"

1. House-keeping. (1) Any spillage of materials shall be cleaned up before further processing.

(2)Floors: platforms, stairways. passages and gangways shall be kept free of any obstructions.(3)There shall be provided easy means of access to all parts of the plant to facilitate cleaning.

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

supplied.

3. Prohibition on the use of food, etc. No Food, drink, tobacco, pan or any edible items shall be stored or heated or consumed on or near any part of the plant or equipment.

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

(2)In addition to the above cautionary notice, arrangement shall be made to instruct and educate all the workers including illiterate workers about the hazards in the process including the specific hazards to which they may be exposed to, in the normal course of their work. Such instructions and education should also deal with the hazards involved in unauthorised and unsafe practices including the properties of substances used in the process under normal conditions as well as abnormal conditions and the precautions to be observed against each and every hazard, Further, an undertaking from the workers shall be obtained within 1 month of their employment and for old workers employed, within one month of coming into operation of the rules, to the effect that they have read the contents of the cautionary notices and instructions, understood them and would abide by them. The training and instructions to all workers and all supervisory personnel shall include the significance of different types of symbols and colours used on the labels stuck or painted on the various types of containers and pipelines.(5)Evaluation and provision of safe guards before the commencement of process. (1) Before commencing any process or any experimental work, or any new manufacture covered under appendix 'A' the occupier shall take all possible steps to ascertain definitely all the hazards involved both from the actual operations and the chemical reactions including the dangerous chemical reactions. The properties of the raw materials used, the final product to be made, and any by-products derived during manufacture, shall be carefully studies and provisions shall be made for dealing with any hazards including effects on workers, which may occur during manufacture.(2)Information in writing giving details of the process, its hazards and the steps taken or proposed to be taken from the design stage to disposal stage for ensuring the safety as in sub- para (1) above should be sent to the Chief inspector at the earliest but in no case less than 15 days before commencing manufacture, handling, or storage of any of items covered under Appendix 'A' whether on experimental basis, or as pilot plant or as trial production, or as large scale manufacture.(3)The design, construction, installation: operation maintenance and disposal of the buildings, plant and facilities shall be taken into consideration effective safe-guards against all the safety and health hazards so evaluated.(4)The requirements under the sub-para (1) to (3) shall not act in lieu of or in derogation to, any, other provisions contained in any act governing the work.

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

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

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

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

9. Handling and storage of chemicals. (1) The containers for handling and storage of chemicals shall be of adequate strength taking into consideration the hazardous nature of the contents. They shall also be provided with adequate labelling and colour coding arrangements to enable identification of the containers and theirs contents indicating the hazards and safe handling methods and shall conform to the respective ISI standards. The instructions given in the label shall be strictly adhered to. Damaged containers shall be handled only under supervision of a knowledgeable and responsible person and spillage shall be rendered innocuous in a safe manner using appropriate means.

(2)The arrangements for the storage of chemicals including charging of chemicals in reaction vessels and containers shall be such as to prevent any risk of fire or explosion or formation of toxic concentration of substances above the limits specified in rule 107 A.(3)Without prejudice to the generally of the requirements in sub-para (2), above, the arrangements shall have suitable ventilation facilities and shall enable the maintenance of safe levels in vessels and containers. Such arrangements shall also take into consideration, the type of flooring and the capacity of flooring and the compatibility requirements of substances with other chemicals stores nearby.(4)(a)Storage of

chemicals and intermediate products, which are highly unstable or reactive or explosive shall be limited to the quantities required for two months use.(b)Whenever the quantities laid down in the above clause (a) are to he exceeded, the permission of the Chief Inspector shall be obtained.(c)Notwithstanding any thing contained in clause (a) and (b) above, the Chief Inspector of Factories may direct any factory carrying out processes covered in Appendix 'A' to further limit the storage of hazardous substances to quantities less than two months on considerations of safety.(5)Standby arrangements equal to the biggest container shall always be available to transfer the toxic substance quickly into the stand by storage facility if any defect develops in any of the container resulting in the release of toxic substances.(6)Any storage facility constructed using non-metallic material such as fibre glass Reinforced plastics (FRP), all glass vessels etc., shall have adequate strength to withstand the stress, if any, exerted by the contents and shall be properly anchored, working platforms, access ladders; pipelines etc. used in such storage facility shall not have any support on the structure of the storage facility and shall be independently supported.

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

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

(2)The occupier shall arrange to inform educate and supervise all the workers in the use of personal protective equipment while carrying out the job.(3)As regards any doubt regarding the appropriateness of any personal protective equipment the decision of the chief inspector will be final.

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

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

13. Control of escape of substances into the work atmosphere. (1) Effective arrangements such as, enclosure or by pass, or efficient exhaust drought, maintenance of negative pressure etc., shall be provided in all plants, containers, vessels, sewers drains, flues, ducts, and culverts, and burned pipes and equipment, to control the escape and spread of substances which are likely to give rise to fire or explosion or toxic hazards during normal working and in the event of accident or emergency.

(2)In the event of the failure of the arrangements for control resulting in the escape of substances in the work atmosphere immediate steps shall be taken into control the process in such a manner, that further escape is brought down to the safe level.(3)The substances that would have escaped into the work atmosphere before taking immediate steps as required in sub-para (2), shall be rendered innocuous by diluting with air or water or any other suitable agent or by suitably treating the substances.

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

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

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

shall be clearly stamped with the marks and figures indicating the person by whom testing has been done, and the date of test: and(c)any vessel which fails to pass the test or which for any other reason is found to be unsafe for use shall be destroyed or rendered unusable under intimation to the Chief Inspector:(2)All parts of plant, equipment, machinery which in the likely event of failure may give rise to an emergent situation shall be examined once in a month by the competent person,(3)Records of testing an examination referred to in paragraphs (1) and (2) shall be maintained as long as that part of the plant, equipment and machinery are in use,(4)All repair work including alteration, modification and addition to be carried out to the plant, equipment and machinery shall be done under the supervision of a responsible person who shall evolve a procedure to ensure safety and health of persons doing the work. When repairs or modification is done on pipelines, and joints are required to be welded, but welding of joints shall be preferred, Wherever necessary, the responsible person shall regulate the aforesaid work through a 'permit to work system'.

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

(2)Staging shall not be erected over any closed or open vessel unless the vessel is so constructed and ventilated to prevent exposure of persons working on the stages.(3)All the staging constructed for the purpose of this para shall have appropriate access which are safe and shall be fitted with proper hand rails to a height of one meter and toe board.

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

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

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

entry or work inside the confined spaces through a 'permit to work system' which should include the safeguards so developed as required under sub clause (a) above:(c)before testing the confined space for entry into or work, the place shall be rendered safe by washing or cleaning with neutralizing agents: or purging with steam or inert gases and making adequate forced ventilation arrangements or such measure which will render the confined space safe:(d)shall arrange to carryout such test as are necessary for the purpose by a competent person and ensure that the confined space is safe for the persons to enter or work. Such testing shall be carried out as often as is necessary during the course of work to ensure its continued safety:(e)shall arrange to educate and train the personnel who would be required to work in confined spaces about the hazard involved in the work. He shall also keep in readiness the appropriate and approved personal protective equipment including arrangements for rescue, resurrection and first aid, and shall arrange supervision of the work at all times by a responsible and knowledgeable person,(2)The manager shall maintain a log book of all entry into or work in, confined space and such record shall contain the details of persons assigned for the work, the location of the work and such other details that would have a bearing on the safety and health of the persons assigned for this work. The log book so maintained shall be retained as long as the concerned workers are in service and produced to the inspector when demanded.

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

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

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

(a)all work subject to the permit to work system shall be carried out under the supervision of a knowledgeable and responsible person;(b)all parts of plant or machinery or equipment on which permit to work system is carried out, shall remain isolated from other parts throughout the period of permit to work and the place of work including the parts of plant, machinery shall be rendered safe by cleaning, purging washing etc:(c)all work subject to the permit to work system shall have predetermined work procedure which integrate safety with the work. such procedures shall be reviewed whenever any change occurs in material or equipment so that continued safety is ensured:(d)persons who are assigned to carried out the permit to work system shall be physically fit in all respects taking into consideration the demands and nature, of the work before entering into the confined space. Such persons shall be adequately informed about the correct work procedures as

well as the precautions to be observed while carrying out the permit to work system:(e)adequate rescue arrangements wherever considered necessary and adequate first aid, rescue and resurrection arrangements shall be available in good working condition near the place of work while carrying out the permit to work system, for use in emergency:(f)adequate rescue arrangements wherever considered equipment shall be used while carrying out the 'permit to work system':(g)after completion of work subject to the 'permit' to work system, the person responsible shall remove all the equipment and tools and restore to the original condition so as to prevent any danger while carrying out regular process.

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

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

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

(2)The occupier shall formulate a detailed plan to meet all such identified emergencies including arrangements for summoning out-side help for rescue and fire fighting and arrangements for making available urgent medical facilities.(3)The occupier shall send the list of emergencies and the details of procedures and plans formulated to meet the emergencies, to the Chief Inspector of Factories.(4)The occupier shall arrange to install distinctive and recognisable warning arrangements to caution all persons inside the plant as well as the neighbouring community, if necessary, to enable evacuation of persons and to enable the observance of emergency procedures by the persons who are assigned emergency duties. All concerned must be well informed about the warning arrangements and their meaning. The arrangements must be checked for its effectiveness every month.(5)Alternate power supply arrangements shall be made and interlocked with the normal power supply system so as to ensure constant supply of power to the facilities and equipment meant for compliance with requirements of paragraphs 10, 11, 12. 13. 14, 18, 22 and this paragraph of part II, part III, part IV and part V of this schedule.(6)The occupier shall arrange to suspend the further process work _ in a place where emergency is established and shall forthwith evacuate all persons in that area except workers who have been assigned emergency duties.(7)All the employees of the

factory shall be trained about the action to be taken by them including evacuation procedures during emergencies.(8)All emergencies procedures must be rehearsed every three months and deficiencies, if any, in the achievements of the objectives shall suitably be corrected.(9)The occupier shall arrange to have ten percent of the workers trained in the use of first aid fire fighting appliances and in the rendering of specific first aid measures taking into consideration the special hazards of the particular process.(10)The occupier shall furnish immediately on request the specific chemical identity of the hazardous substance to the treating physician when the information is needed to administer proper emergency or first aid treatment to exposed persons.

24. Danger due to effluents. (1) Adequate precautions shall be taken to prevent the mixing of effluents from different processes and operations which may cause dangerous or poisonous gases to be evolved.

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

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

(2)All hot exhaust pipes shall be installed outside a building and other hot pipes or hot surface or surfaces likely to become hot shall be suitable protected.(3)The classification of work areas in terms of its hazard potential and the selection of electrical equipment or other equipment that could constitute a source of ignition shall be in accordance with the respective Indian Standard.(4)Where a flammable atmosphere may be prevalent or could occur, the soles of footwear worn by workers shall have not metal on them, and the wheels of trucks or conveyors shall be conductive types.(5)All tools and appliances used for work in this area shall be of non sparking type.(6)Smoking in process areas where there are risks of fire and explosion shall be prohibited, and warning notices in the language understood by majority of workers shall be posted in the factory prohibiting smoking into specified areas.

2. State electricity. (1) All machinery and plant particularly, pipelines and belt drives, on which static charge is likely to accumulate, shall be effectively earthed. Receptacles for flammable liquids shall have metallic connections to the earthed supply tanks to prevent static sparking, where necessary, humidity shall be regulated.

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

3. Lighting Protection. Lighting protection arrangements shall be fitted where necessary and shall be maintained.

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

5. Leakage of flammable liquids. (1) Provision shall be made to confine by means of bund walls, dikes sumps etc. possible leakages from storage vessels containing flammable liquid.

(2)Waste material in contact with flammable substances shall be disposed of suitably under the supervision of knowledgeable and responsible person.(3)Adequate and suitable fire fighting appliances shall be installed in the vicinity of such vessels.

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

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

8. Fire fighting systems. (1) Every factory employing 500 or more persons and carrying out processes listed in Appendix 'A' shall provide--

(a)Trained and responsible fire fighting squad so as to effectively handle the fire fighting and life saving equipment in the event of fir or other emergency. Number of persons in this squad will

necessarily depend upon the size of risk involved, but in no case shall be less than 8 such trained persons to be available at any time.The squad shall consist of watch and ward personnel. fire pump man and departmental supervisors and operators trained in the operation of fire & emergency services.(b)Squad leaders shall preferably be trained in a recognised Governments institution and their usefulness enhanced by providing residence on the premises.(c)Squad personnel shall be provided with clothing and equipment including helmets, boots and belts.(2)A musteroll showing the duties allocated to each member of the squad shall be prepared and copies supplied to each leader as well as displayed in prominent places so as to be easily available for reference in case of emergency.(3)The purnpman shall be thoroughly conversant with the location of all appliances. He shall be responsible for maintaining all fire fighting equipments in proper working order. Any defect corning to his notice shall be immediately be brought to the notice of squad leader.(4)As far as practicable, the fir pump room and the main gate (s) of the factory be connected to all manufacturing or storing areas through telephone interlinked and placed in a convenient location near such areas.Part - IVRisks of toxic substances

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

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

2. Drainage. Adequate drainage shall be provided and shall lead to cool action taken specifically provided for this purpose wherein deleterious material shall be neutralised, treated or otherwise rendered safe before it is discharged Into public drains or sewers.

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

(2)Such vessels shall unless its edge is at least 90 centimeters above the adjoining ground or platform, be securely fenced to a height of at least 90 centimeters above such adjoining ground platform.(3)Where such vessels adjoin and the space between them clear of any surrounding bricks or other work is either less than 45 centimeters in width; but is not securely fenced on both sides to a height of at least 90 centimeters, secure barriers shall be so placed as to prevent passage between them:Provided that sub-paragraph (2) of this paragraph shall not apply to:--(a)Saturators used in the manufacture of sulphate of ammonia; and(b)that part of the sides of brine evaporating pans

which require raking, drawing or filling.

4. Continuous exhaust arrangement. (1) Any process evolving toxic vapour, gas. fume and substance shall have, efficient continuous exhaust drought, such arrangement shall be interlocked in the process control wherever possible.

(2)In the event of failure of continuous exhaust arrangement means shall be provided to automatically stop the process.

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

6. Waste disposal. (1) There shall be provided a suitable receptacle made of non-absorbable material with a tightly fitting cover for depositing waste material soiled with toxic substances and the contents of such receptacle shall be destroyed by burning or using other suitable methods under the supervision of a responsible person.

(2)During the course of manufacture, whenever any batch or intermediate products having toxicity is rejected on considerations of quality, sufficient precautions shall be taken to render them in nouns or otherwise treat them or inactive them before disposal.(3)The empty containers of toxic substances shall be cleaned thoroughly before disposal under the supervision of a responsible person.Part - VSpecial Provisions

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

(2)No part of the plant or equipment or implements which was in contact with nitro or amino compounds shall be repaired, or handled unless they have been emptied and thoroughly cleaned and decontaminated.(3)Filling of containers with nitro or amino compounds shall be done only by using a suitable scoop to avoid physical contact and the drawing of the containers in the stove shall be done in such a manner that the hot and contaminated air from the stove is not drawn into the work room.(4)Processes involving the steaming into or around any vessel containing nitro or amino

compounds or its raw materials shall be carried out in such a manner that the steam or vapour is effectively prevented to be blown back into the working atmosphere.(5)Suitable antidotes such as methylene blue injections shall always be available at designated placed of work for use during emergency involving the poisoning with nitro or amino compounds.

2. Special precautions for "chrome processes". (1) Grinding and sieving of raw materials in chrome processes shall be carried on in such a manner and under such condition as the secure effective separation from any other processes and under an efficient exhaust drought.

(2)There shall be washing facilities located very near to places where wet chrome process such as leaching, acidification, sulphate settling, evaporation, crystallisation, centrifugation or packing are carried out, to enable quick washing of affected parts of body with running water.(3)Weekly inspection of hand and feet of all persons employed in chrome process shall be done by a qualified nurse and record of such inspections shall be maintained in a form approved by the Chief Inspector of Factories.(4)There shall be always available at designated places of work suitable ointment such as glycerin, Vaseline, etc. and water- proof plaster in a separate box readily accessible to the workers so as to protect against per-formation of nasal septum.

3. Special precautions for processes carried out in all glass vessels. (1) Processes and chemical reactions such as manufacture of vinyl chloride, benzyl chloride etc. which are required to be carried out in all glass vessels shall have suitable means like substantial wire mesh covering to protect persons working nearby in the event of breakage of glass vessels.

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

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

(2)The personal protective equipment like overall etc. provided for the chlorate workers shall not be taken from the place of work and they shall be thoroughly cleaned daily.(3)Adequate quantity of water shall be available near the place of chlorate process for use during fire emergency.(4)Wooden vessels shall not be used for the crystallisation of chlorate or to contain crystallised ground chlorate.

5. Special precaution in the use of plant and equipments made from reinforced plastics. (1) All Plant and equipment shall conform to appropriate Indian or any other National Standard.

(2)Care shall be taken during storage, transport, handling and installation of plant and equipments to avoid accidental damage:(3)All Plant and equipments shall be installed in such a way as to ensure that loads are distributed as intended in design or as per the recommendations of the manufacturers.(4)All pipe works shall be supported so that total loads local to the branches on the vessel or tank do not exceed their design values.(5)After erection all plant and equipments shall be subjected to a pressure test followed by a thorough examination by competent per-son. The test and examination shall be as per relevant standard. A Certificate of test and examination by competent person shall be obtained and kept available at site.(6)All plant and equipments shall be subjected to periodical test and examination and record maintained as per paragraph 15 in part II of this schedule:(7)Plant and equipments during their use shall not be subjected to over filling or over loading beyond rated capacity.Part - VIMedical requirements

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

(a)Fully equipped first aid box;(b)Readily accessible means of drenching with water, parts of body of persons, and clothing of persons who have been contaminated with such toxic and corrosive substances, and such means shall be as shown in the table below:

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

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

2. Occupational health centre. In all the factories carrying out processes covered in Appendix 'A' there shall be provided and maintained in good order and occupational health centre with facilities as per scale laid down here-under:

(1)For factories employing up to 50 workers (a)the services of a qualified medical practitioner, hereinafter known as factory Medical Officer, available on a retainer-ship basis, in his notified clinic

near to the factory for seeking medical help during emergency. He will also carry out the pre-employment and periodical medical examinations as stipulated in paragraph 4 of this part.(b)A minimum of five persons trained in first aid procedures, amongst whom at least one shall always be available during the working period:(c)A fully equipped first aid box.(2)For factories employing 51 to 200 workers (a)The occupational health centre shall have a room having a minimum floor area of 15 sq.in. with floor and walls made of smooth hard and impervious surface and shall be adequately illuminated, ventilated and equipped:(b)A part time factory Medical Officer will be in over all charge of the Centre who shall visit the factory minimum twice in a week and whose services shall be readily available during emergencies.(c)There shall be one qualified and trained dresser-cum-com-pounder on duty throughout the working period.(d)A fully equipped first aid box.(3)For factories employing above 200 workers (a)There shall be one full time factory Medical Officer for factories employing up to 500 workers and one more Medical Officer for every 1000 workers or part thereof.(b)The occupational health centre in this case shall have a minimum of 2 rooms each having a minimum floor area of 15 sq.m. with floors and walls made of smooth, hard and impervious surface and shall be adequately illuminated, ventilated and equipped.(c)There shall be one trained nurse, one dresser-cum-com-pounder and sweeper-cum-ward boy throughout the working period.(d)The occupational Health Centre in this case shall be suitably equipped to manage medical emergencies.

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

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

4. Medical examination. (1) Workers employed in processes covered in Appendix 'A' shall be medically examined by a factory Medical Officer in the following manner:

(a)Once before employment, to ascertain physical suitability of the person to do the particular Job:(b)Once in a period of 6 months, to ascertain the health status of the workers; and(c)The details of pre-employment and periodical medical examinations carried out as aforesaid shall be recorded in the prescribed form.(2)Any finding of the Factory Medical Officer revealing any abnormality or unsuitability of any person employed in the process shall immediately be reported to the Certifying

Surgeon, Who shall in turn, examine the concerned workers and communicate his findings within 30 days. If the Certifying Surgeon is of the opinion that the person so examined is required to be suspended from the process for health protection he will direct the occupier accordingly, who shall not employ the said worker in the same process. However the person so suspended from the process shall be provided with alternate placement facilities unless he is fully in capaciated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated:Provided that the Certifying Surgeon on his own may examine any other workers whom he feels necessary to be examined for ascertaining the suitability of his employment in the processes covered in Appendix 'A' or for the ascertaining the health status of any other worker and his opinion shall be final.(3)No person shall be newly appointed without the Certificate of Fitness granted by the factory Medical Officer. If the Factory Medical Officer dealers a person unfit for being appointed to work in the process covered in Appendix 'A' such person shall have a right to appeal to the Certifying Surgeon, whose opinion shall be final in this regard.(4)The worker suspended from the process owing to the circumstances covered in sub-para (2) shall be employed again in the same process only after obtaining the fitness Certificate from the Certifying Surgeon and after making entries to that effect in the health register.Part - VIIAdditional Welfare Amenities

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

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

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

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

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

keeping of the clothing in hanging position.

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

4. Special bathing facilities. (1) The occupier of any factory carrying out the process covered under appendix shall provide special bathing facilities for all the workers employed and such facilities shall be provided at the rate of 1 for 25 workers and part thereof. and shall be maintained in the clean and hygienic condition.

(2)The occupier shall insist all the workers employed in the process covered in Appendix 'B' to take bath after the completion of the days or shift work using the bathing facilities so provided and shall also effectively prevent such of those workers taking bath in any place other than the bathing facilities.(3)Not-withstanding anything contained in sub-para (1) above the Chief Inspector may require in writing the occupier of any factory carrying out any other process for which in his opinion bathing facilities are essential from the health point of view, to provide special bathing facilities.Part - VIII(1)Duties of workers. (1) Every worker employed in the processes covered in Appendix 'A' and Appendix 'B' shall not make any safety device or appliance or any guarding or fencing arrangement inoperative or defective and shall report the defective condition of the aforesaid arrangement as soon as he is aware of any such defect.(2)Before commencing any work, all workers employed in processes covered in Appendix 'A' shall check their work-place as well as the machinery, equipment or appliance used in the processes and report any malfunction or defect immediately to the supervisor or any responsible person of the management.(3)All workers shall cooperate in all respects with the management while carrying out nay work or any emergency duty assigned to them in pursuance of this schedule and shall always use all the personal protective equipment issued to them in a careful manner.(4)All workers employed in the processes covered in Appendix 'A' or Appendix 'B' shall not smoke in the process area or storage area. If special facilities are provided by the management only such facilities should be used.(5)All workers employed in the process covered in Appendix 'A' shall not remain in unauthorised place or carry out unauthorised work or improvise any arrangements or adopt short cut method or misuse any of the facilities provided in pursuance of the schedule, in such a manner as to cause risk to themselves as well as or to other employed.(6)The workers shall not refuse undergoing medical examination as required under these rules.Part - IXRestrictions on the employment of young person under 18 years of age and women.(1)The Chief Inspector of Factories may by an order in writing, restrict or prohibit the employment of women and young person under the age of 18, in any of the processes covered in Appendix 'A' of this schedule on considerations of health and safety of women and young persons.(2)Such persons who are restricted or prohibited from working in the process due to the order issued in pursuance of sub-para (1) above shall be provided with alternate work which is not detrimental to their health or safety.Part - XExemptions.

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

Appendix 'A'Any works or that part of works in which: (a)The manufacture, manipulation or recovery of any of the following is carried on: (i)Sodium, potassium, iron, aluminium, cobalt; nickel. copper, arsenic, antimony, chromium, zinc, selenium, magnesium, cadmium, mercury, beryllium and their organic and inorganic salts, alloys, oxides and any hydroxides;(ii)ammonia, ammonium hydroxide and salts of ammonium;(iii)the organic or inorganic compounds of sulphurous, sulphuric. nitric, nitrous hydrochloric, hydrofluoric, hydroiodic, hydrosulphuric, hydrobromic, boric;(iv)Cyanogen compounds, cyanide compounds, cyanate compounds:(v)Phosphorous and its compounds other than organo phosphorous insecticides;(vi)Chlorine.(b)Hydrogen sulphide is evolved by the decomposition of metallic sulphides, or hydrogen sulphide is used in the production of such sulphides;(c)bleaching powder is manufactured or chlorine gas is produced in chloralkali plants:(d)(i)gas tar or coal tar or bitumen or shale oil asphalt or any residue of such tar is distilled or is used in any process of chemicals manufacture:(ii)tar based synthetic colouring matters or their intermediates are produced:(e)nitric acid is used in the manufacture of nitro compounds;(f)explosives are produced with the use of nitro compounds;(g)aliphatic or aromatic compounds or their metallic and non-metallic derivatives or substituted derivatives, such as chloroform, ethylene glycol, formaldehyde, benzyle chloride, phenol, methyl ethyl keytone peroxide, cobalt carbonyl tungsten carbide etc. are manufactured or recovered.Appendix 'B'Concerning special bathing accommodation in pursuance of Para 4 Part-IV.

1. Nitro or amino processes.

2. All chrome processes.

3. Process of distilling gas or coal tar or processes of chemical manufacture in which tar is used.

4. Processes involving manufacturing, manipulation, handling or recovery of cyanogen compound, cyanide compound, cyanate compounds.

5. Processes involving manufacture of bleaching powder or production of chlorine gas in chloralkali plants.

6. Manufacture, manipulation or recovery of nickel and its compounds.

7. All processes involving the manufacture, manipulation or recovery of aliphatic or aromatic compounds or their derivatives or substituted derivatives.

Appendix 'C'AmbulanceAmbulance should have the following equipments:-General :- An wheeled stretcher with folding and adjusting devices; Head of the stretcher must be capable of being tilted upward;- Fixed suction unit with equipments: Fixed oxygen supply with equipments;- Pillow with case;- Sheets; Towels; Blankets;- Emeis bag;- Bed Pan:- Urinal;- Glass;Safety equipments:- Flares with life of 30 minutes;- Flood lights;- Flash lights;- Fire extinguisher dry powder type: Insulated gauntlets.Emergency Care equipments:-Resuscitation:- Portable suction unit;- Portable oxygen unit;- Bag valve mask, hand operated artificial ventilation unit; Airways;- Mouth gags;- Tracheostomy adaptors;- Short spine board;- I.V.Fluids with administration unit;- B.P.Manometer;- Cugg;- Stethoscope.Immobilisation:- Long & Short padded boards;- Wire ladder splints;- Triangular bandage:- Long & Short spine boards;Dressings:- Gauge pads 4" X 4"- Universal dressing 10" X 36"- Roll of aluminium foils;- Soft roller bandages 6" X 5 yards:- Adhesive tape in 3" rolls:- Safety pains;- Bandage sheets;- Bum sheet.Poisoning:-- Syrup of I peace:- Activated charcoal: Prepacked in doses.- Snake bit Kits;- Drinking water.Emergency medicines:- As per requirement (Under the advice of medical officer only).

XI

Manufacture of Pottery and Process Incidental Thereto

1. Definitions. For the purposes of this schedule :

(a)"Pottery" includes earthenware, stoneware, porcelain, china tile and any other article made from clay or from a mixture containing clay and other materials such as quartz, flint, feel spar and gypsum ;(b)"efficient exhaust draught" means localised ventilation affected by mechanical or other means for removal of dust or fume so as to prevent it from escaping into the air of any place in which work is carried on. No draughts, shall be deemed efficient which fails to remove effectively dust or fume generated at the point where dust or fume originates;(c)"fettling" includes scalloping, towing, sand papering, sand sticking, brushing or any other process of cleaning of pottery ware in which dust is given off;(d)"Lead less glaze" means a glaze which does not contain more than 1% of 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 weighted 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 sulfide and weighed as lead sulfide.(f)"ground or powdered flint or quartz" does not include natural sands; and(g)"potters shop" includes all places where pottery is formed by pressing or by any other process and all places where shaping, fettling or other treatment of pottery articles prior to placing for the biscuit, fire is carried on.

2. Efficient exhaust draught. The following process shall not be carried on without the use of an efficient exhaust draught:

(i)All processes involving the manipulation or use of a dry and unfritted lead compound:(ii)The fettling operations of any kind, whether on green ware or biscuit; provided that this shall not apply to the wet fettling, and the occasional finishing of pottery articles without the aid of mechanical power;(iii)The shifting of clay dust or any other material for making or other articles by pressure, except where: (a)this is done in a machine so enclosed as to effectually prevent the escape of dust, or(b)the material to be shifted so damp that no dust can be given off.(iv)The processing of tiles from clay dust, an exhaust opening being connected with each press. This sub-clause shall also apply to the pressing from clay dust of articles other than tiles, unless the material is so damp that no dust is given off.(v)The fettling of tiles made from clay dust by pressure, except where the fettling is done wholly on, or with, damp material. This sub-clause shall also apply to the fettling of other articles made from clay dust, unless the material is so damp that no dust is given off,(vi)The process of loading and unloading of saggars where handling and manipulation of ground and powdered flint, quartz, alumina or other materials are involved.(vii)The brushing of earthenware biscuit, unless the process is carried on in a room provided with efficient general mechanical ventilation or other ventilation which is certified by the Inspector of Factories as adequate, having regard to all the circumstances of the case.(viii)Fettling of biscuit ware which has been fired empowered flint or quartz except where this is done in machines so enclosed as to effectually prevent the escape of dust.(ix)Ware cleaning after the application of glaze by dipping or other process.(x)Crushing and dry grinding of materials for pottery bodies and saggars, unless carried on in machines so enclosed as to effectively prevent the escape of dust or is so damp that no dust can be given off.(xi)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.(xii)Grinding of tiles on a power driven wheel, unless an efficient water spray is used on the wheel.(xiii)Lifting and conveying of materials by elevators and conveyors unless they are effectively enclosed and so arranged as to prevent escape of dust into the air in or near any place at which persons are employed.(xiv)The preparation or weighing out of flow material, lawning or dry colours, colouring, dusting and cOlour blowing.(xv)Mold making, unless the bins or similar receptacles used for holding plaster of Paris are provided with suitable covers.(xvi)The manipulation of calcined material, unless the material has been made and remains so wet that no dust is given off.

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

(a)Crushing and dry grinding or sieving of materials fettling, pressing of tiles, drying of clay and green ware. loading and unloading saggars.(b)All processes involving the use of dry lead compound.

4. Use of glaze. No glaze which is not a lead less glaze or a low solubility glaze, shall be used in a factory on which pottery is manufactured.

5. Restriction on employment of women and young persons. No woman or young person shall be employed or permitted to work in any of the operations specified in clause (2) or at any place where such operations are carried on.

6. Potter's Wheel. The potter's wheel (jolly and jigger shall be provided with screens or so constructed, as to prevent clay scrapings being thrown off beyond the wheel).

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

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

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

9. [Medical facilities and records of examinations and tests. (1) The occupier of every factory in which manufacture of pottery is carried on, shall:

(a)employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical check up against the hazards involved and to diagnose and treat the industrial diseases which are likely to creep in such type of process and,(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examination and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

10. Medical examination by the Certifying Surgeon (1) Every worker employed in any process mentioned under para-graphs 3, shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for lead in urine and blood, ALA in urine, haemoglobin content stippling of cells and pulmonary functions tests and chest X-rays for workers engaged in processes mentioned in clauses (i) and (xiv) of paragraph 2 and pulmonary function tests and chest X-rays for the others. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)All persons employed in any of the processes included under sub-paragraph (2) (i) and (xiv) shall be examined by a Certifying Surgeon once in every three calendar months. Those employed in any other processes mentioned in the remaining sub-paragraphs of para-graph 2 shall be examined by a Certifying Surgeon once in every twelve calendar months. Such examinations in respect of the workers shall include all the tests as specified in sub-paragraph (1) except Chest X-Rays which will be once in 3 years.(3)The certifying Surgeon after examining a worker shall issue Certificate of Fitness in Form 30. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in Form No.19.(4)The Certificate of Fitness and the health register shall be kept readily available for Inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit for work in the said processes.(6)No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon after further examination, again certifies him fit for employment in those processes] [Substituted by No.4, dated 8.1.1991 [25-6-1992]].

11. Protective equipment. (1) The occupier shall provide and maintain suitable overalls and head coverings for all persons employed in the processes mentioned in clause (2).

(2)The occupier shall provide and maintain suitable aprons of water proof of similar material which can be sponged daily for the use of the dippers, dippers' assistants, throwers, jolly workers, casters, mold makers and filter press and pug mill workers.(3)Aprons provided in pursuance of sub-clause (2). shall be thoroughly cleaned daily by the wearer by sponging or other wet process. All overalls and head coverings shall be washed, cleaned and mended at least once a week and this washing, cleaning or mending shall be provided by the occupier.(4)No person shall be allowed to work in

emptying sacks of dusty materials, weighing out and mixing of dusty materials and charging of ball mills and blunger's without wearing a suitable and efficient dust respirator.

12. Washing facilities. The occupier shall provide and maintain in a cleanly state and in good repair for the use of all persons employed in any of the processes specified in clause (2), a wash place under cover with either,

(a)(i)a trough with smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow at least, two feet for every five such persons employed at any one time and having a constant supply of clean water from taps or gets above the trough at intervals of not more than two minutes, or(ii)at least one tap or stand pipe for every five such persons employed at any one time having a constant supply of clean water the tap or stand pipe being spaced not less than 4 feet apart: and(b)a sufficient supply of clean towels made of suitable materials changed daily with sufficient supply of nail brushes and soap.

13. 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 process mentioned at clause (2).

14. Mess-room. (1) There shall be provided and maintained for use of all persons remaining within the premises during the rest interval, a suitable mess room or canteen at a distance of at least 50 feet from the main factory providing a minimum accommodation of 10 square feet per head. The washing facilities mentioned above, shall be provided near the mess room or canteen and the mess room and canteen shall be furnished with:

(i)a sufficient number of tables and chairs or benches with back rest:(ii)arrangements for washing utensil:(iii)adequate means for warming food:(iv)adequate quantity of drinking water.(2)The rooms shall be adequately ventilated by the circulation of fresh air and placed under the charge of a responsible person and shall be kept clean.

15. Food, drinks etc. prohibited in work rooms. No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any work room in which any of the process mentioned in clause (2) are carried on and no person shall remain in any such room during intervals for meals or rest.

16. Cloak room etc. There shall be provided and maintained for the use of all persons employed in any of the processes mentioned in clause (2)-

(a)a cloak room for clothing put off during working hours, which shall be separate from any mess room;(b)separate and suitable arrangements for the storage protective equipment provided under clause (11).

17. Application. The provisions contained in this Schedule 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 lead less glaze only.

18. Exemptions. If in respect of any factory, the Chief Inspector of Factories is satisfied that all or any of the provisions of this Schedule are not necessary for, the protection of the persons employed in such factory, he may by a certificate in writing, exempt such factory, from all or any of such provisions, subject to such conditions, as he may specify therein. Such facilities may at any time be revoked by the Chief Inspector without assigning any reasons.

XII

Printing Presses and type foundries-certain lead processes carried therein.

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

2. Definitions. In these regulations:

(1)"Lead material" means material containing not less than five per cent of lead.(2)"Lead process" means (a)the melting of lead or any lead material for casting and mechanical composing:(b)the re-charging of machines with used lead material; or(c)any other work including removal of dress from melting pots, cleaning of plungers, and(d)manipulation, movement or other treatment of lead material.(3)"Efficient exhaust draught" means localised ventilation effected by heat or mechanical means, for the removal of gas, vapour, dust or fumes so as to prevent them 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.

3. Exhaust draught. None of the following processes shall be carried on except with an efficient exhaust draught

(a)melting lead material or slugs;(b)heating lead material so that vapour containing lead is given off;or unless carried on in such a manner as to prevent free escape of gas, vapour, fumes or dust into any place in which work is carried on, or, unless carried on in electrically heated and thermostatically controlled melting pots.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.

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

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

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

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

7. Floor of work room. The floor of every work room where lead process is carried on shall be

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

8. Mess-room. the occupier shall provide and maintain for the use of the persons employed, suitable and adequate arrangements for taking their meals. The arrangements shall consist of the use of a room separate from any work room, which shall be furnished with sufficient tables and benches and unless a canteen serving hot meals is provided, adequate means of warming food. The room shall be adequately ventilated by the circulation of

fresh air and shall be placed under the charge of a responsible person and shall be kept clean.

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

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

10. [Medical facilities and records of examinations and tests. (1) The occupier of every factory to which the schedule applies shall:

(a)Employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification. Training and experience, conducting a thorough medical check up against the hazards involved and to diagnose and treat the industrial disease which are likely to creep in such type of processes and(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examinations and appropriate test carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.][Substituted by No.4, dated 8.1.1991 [25-6-1992]]

10A. [Medical examination by Certifying Surgeon. (1) Every worker employed in a lead process shall be examined by a Certifying Surgeon within a 15 days of his first employment such examination shall include tests for lead in urine and blood ALA in urine, stippling of cells and steadiness test. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said process shall be reexamined by a Certifying Surgeon at least once in every six calendar months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include tests as specified in sub-paragraph (I).(3)The Certifying Surgeon after examining a worker shall issue a certificate of Fitness in Form 30. 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 managers of the factory. The record of each examination carried out under

sub-paragraph (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in Form 19.(4)The Certificate of Fitness and the Health Register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that 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 those documents should include the period for which he considers that the said person is unfit for work in the said processes.(6)No person who has been found unfit to work as said in subparagraph (5) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination: again certifies him fit for employment in these processes.][Added by No.4. dated 8.1.1991 [25-6-1992]]

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

XIII

Manufacture of bangles and other articles form cinematograph film and toxic and inflammable solvents.

1. Definitions. For the purpose of this Schedule.-

(a)toxic and inflammable solvents mean(i)Solvents like acetone, tetracholrethene, alcohol, denatured spirit, phenol, any lacitate, butyle, acetate, di-acetone, alcohol and such other substances which in the opinion of the Chief Inspector are toxic and inflammable:(ii)"bangle polish" and "bangle mixture" and such other solvents, by whatever trade name they are known, used in the manufacture of bangles and other articles from cellulose films.(b)"suspension" means suspension from employment in any process in which toxic and inflammable solvents are used, by written certificates in the Health Register signed by the Certifying Surgeon, who shall have the power of suspension, as regards all persons employed in any such process;(c)"approval" means approved by the Chief Inspector;(d)"first employment" means first employment in any manufacturing process referred to in this Schedule and also re- employment in manufacturing process following any cessation of employment for a continuous period of three calendar months.

2. Application. This Schedule shall apply in respect of all factories or any part thereof in which the process of manufacture of bangles and other articles from cinematograph film or from toxic and inflammable substances or from both (hereinafter referred to as the said manufacturing process) is carried on.

3. Prohibition relating to employment of women and young persons. No woman or young person shall be employed or permitted to work in any room in which any of the said manufacturing process is carried out or in any room in which toxic or inflammable substances or both are stored or treated.

4. Medical Examination. (I) No person shall be employed in any of the said manufacturing processes unless he has been examined by the Certifying Surgeon within seven days preceding his first employment and certified fit for such employment.

(2)No person shall be employed in any of the said manufacturing processes unless he is re-examined by the Certifying Surgeon at least once during each calendar month or at such intervals as may be specified in writing by the Chief Inspector.(3)The Certifying Surgeon shall examine persons employed in any of the said manufacturing processes by giving due notice to all concerned.(4)A Health Register in Form No. 19 containing the names of all workers employed in any of the said manufacturing processes shall be kept.(5)No person after suspension shall be employed without written sanction from the Certifying Surgeon entered in or attached to the Health Register.

5. Protective clothing. Protective clothing shall be provided and maintained in good repair for all workers employed in the factory and such clothing shall be worn by the workers concerned. The protective clothing shall consist of a suitable apron and if so required by the Chief Inspector or head coverings provided in that behalf. The head coverings so provided shall be washed daily.

6. Ventilation. Every work-room in which cinematograph film or toxic and inflammable solvents or both are handled or manipulated or used shall be provided with inlets and outlets of adequate size so as to secure and maintain efficient ventilation in all parts of the room during working hours:

Provided that the preparation of "Cylinders" from cinematograph film and toxic and inflammable solvents, cutting of such cylinders into bangles and heat treatment of the bangle shall be carried out in an open space under cover, unless specially exempted by the Chief Inspector.

7. Drying of cinematograph film. (1) Drying of cinematograph film shall not be done except under such conditions, as will prevent the cinematograph film from coming into contract or proximity with any source of heat or heated surface in such a manner, as would render the cinematograph film liable to be ignited or decomposed.

(2)Loose unwound cinematograph film shall be enclosed during drying in such a manner that a person in a room will be protected as far as practicable from an outburst of flame.(3)The temperature in any part of a drying enclosure for loose unwound cinematograph film other than a safety acetate film, shall not at any time exceeding 110 degree F. A thermometer shall be kept available in every room in which such drying is done.(4)Boiling of raw films either alone or in conjunction with other chemicals or heating of bangles and other articles made of film shall be carried out in any open space.(5)A sufficient number of buckets filled with water shall be provided near the places where bangles are subjected to heat treatment.

8. Storage of raw materials. (i) Each roll or package of cinematograph film used in any of the said manufacturing process, shall except when required to be exposed for the purposes of the work carried on, be kept in a separate box, properly closed and constructed of metal or other approved metal.

(ii)Without prejudice to the Cinematograph Film Rules, 1948, Municipal Rules and other rules in force, all cinematograph film not being actually used or manipulated, shall be kept in a room or chamber or similar enclosure approved by the Chief Inspector. Toxic and inflammable solvents stock shall be stored in approved places or containers.

9. Disposal of Waste Films. (1) All waste and scrap of cinematograph film shall be collected at frequent intervals during each day and be placed in strong metal receptacles fitted with self closing lids and clearly marked with the words "Film Waster".

(ii)No material liable to ignite spontaneously nor anything likely to ignite or decompose cinematograph film, shall be placed in the receptacle.(iii)At the end of each days' work, waste and scrap films shall be either transferred to a store-room or removed from the premises.(iv)Waste films and shavings shall be destroyed by burning in an open place under controlled conditions. They shall not be allowed to be thrown or scattered in or about the premises of the Factory.

10. Prohibition for smoking. (i) No person shall be allowed to smoke in any room in which cinematograph film in manipulated, used or stored.

(ii)No open fire or light or any smoking materials or matches nor anything likely to ignite or decompose cinematograph film, shall be allowed in any store-room or any room in which cinematograph film or toxic inflammable solvents or both are stored, manipulated or used:Provided that the Chief Inspector may permit the use of a coal sigree in the heat treatment of bangles subject to such conditions, as he may specify in wilting.

11. Caution with regard to electrical installation. All electrical installations and fittings shall be of flame proof type.

12. Floor of work-rooms. The floor of every work-room in which any of the said manufacturing processes are carried on, shall be

(a)of cement or similar material, so as to be smooth and impervious to water;(b)maintained in sound condition;(c)kept free from materials, plants or other obstruction not required for, or produced in, the process carried on in the room;(d)cleaned daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room.

13. Time to be allowed for washing. Before each meal and before the end of the days' work, at least ten minutes in addition to the regular meal times, shall be allowed for washing to each person who has been employed in any of the said manufacturing processes.

14. Washing facilities. Thee shall be provided and maintained in a cleanly state and in good repair for the use of all persons, a wash place under cover, with either:-

(i)a trough with a smooth impervious surface fitted with a waste-pipe without plug, and of sufficient length to allow of at least two feet for every five such persons employed at any one time and having a constant supply of water from taps or jets above the trough at intervals of not more than two feet: or(ii)at least one wash basin for every five such persons employed at any one time fitted with a waste-pipe and plug and having a constant supply of water laid on:(iii)a sufficient supply of clean towels made of suitable material which shall be renewed daily, which supply, if so required by the Inspector, shall include a separate marked towel for each such worker; and(iv)a sufficient supply of soap or other suitable cleansing material and of nail brushes.

15. Facilities for bathing. Chief inspector may require any factory occupier to provide bath accommodation for all persons engaged in all or in any of the said manufacturing processes and also sufficient supply of soap and clean towels.

16. Cloak-room. If the Chief Inspector so requires, there shall be provided and maintained for the use of persons employed in any of the said manufacturing processes

(a)a cloak room for clothing put off during working hours with adequate arrangements for drying the clothing, if wet:(b)separate and suitable arrangements for the storage of protective clothing provided under paragraph 5.

17. Food, drink etc. prohibited in work-rooms. No food, drink, pan and supari or tobacco shall be consumed or brought by any worker into any work-room in which any of the said manufacturing processes, is carried on.

18. Mess-room. If the Chief Inspector so requires, there shall be provided and maintained for the use of all persons employed in the factory and remaining on the premises during the meal intervals, a suitable mess-room, which shall be furnished with:

(a)sufficient tables and benches: and(b)adequate means for warming food.The mess shall be placed under the charge of a responsible person and shall be kept clean.

19. Fire fighting appliances. -(1) Adequate means for extinguishing fires having regard to the amount of Celluloid present in the room at any one time, shalt be kept constantly provided for each work-room and store-room.

(2)The fire fighting appliances shall be maintained in good condition and kept in a position which is easily accessible.

20. Means of escape in case of fire. Adequate means of escape fire shall be provided in every room in which cinematograph film is manipulated used or stored and the means of escape shall not be deemed adequate unless:

(a)at least two separate exits are provided from every such room and two safe ways of escape from the building are available for all persons employed in the factory, and(b)all doors and windows provided in connection with the means of escape are constructed to open outwards readily.

21. Cautionary notices. (i) Cautionary notices explaining the dangers to which workers are exposed due to any of the said manufacturing processes being carried, shall be affixed in prominent positions in the factory where they may be easily and conveniently read by the persons employed. The said notices shall be printed in the languages understood by the majority of workers employed in the factory.

(ii)If any person employed in the factory is illiterate, effective steps shall be taken to explain carefully to such illiterate person, the contents of the notices.

22. Exemptions. If in respect of any factory. the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the process, or for any other reason, all or any of the provisions of this Schedule are not necessary for the protection of the persons employed in the factory, he may by a certificate in writing exempt such factory from all or any of the provisions, on such condition, as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector without assigning any reasons.

XIV

(Compression of Oxygen and Hydrogen produced by the electrolysis of water)(1)The room in which electrolyser plant is installed shall be separate from the plant for storing and Compressing the Oxygen and Hydrogen and also the electric generator room.(2)The purity of oxygen and hydrogen shall be tested by a competent person at least once in every shift at the following points(i)in the electrolysis room.(ii)at the gas holder inlet. and(iii)at the suction end of the compressor.The purity figures shall be entered in the register and signed by the persons carrying out such test: provided that, if the electrolyser plant is fitted with automatic recorder of purity of oxygen and hydrogen with alarm lights, it shall be sufficient is the purity of the gases is tested at the suction end of the compressor only.(3)The oxygen and hydrogen gases shall not be compressed, if their purity, as determined under clause (2) above, falls below 98% at any time.(4)[The bell of any gas holder shall not be permitted to go within 30 ems of its lowest position when empty and a limit switch shall be fitted to the gas-holder in such a manner as to switch off the compressor motor when this limit is reached.(5)There shall be at least two gas-holders for each kind of gas compressed and the gas-holders for same gas shall be provided with suitable arrangements to ensure that no gas holder is connected to the compressor and to the electrolyser at the same time and only one gas-holder is connected to the compressor line at any one time] [Clauses (4) and (5) substituted by No. 1. dated 24.3.1979.].(6)The water and caustic soda and potash used for making electrolytes shall be of standard suitable for electrolysis.(7)Electrical connections at the electrolyser cells and at the electric generator terminals shall be so constructed, as to preclude the possibility of wrong connections leading to the reversal of polarity and in addition an automatic device shall be provided to cut off power in the event of reversal of polarity owing to wrong connections either at the switch board or at the electric generator terminals.(8)Oxygen and hydrogen gas pipes shall be painted with distinguishing colours. Whenever an hydrogen pipe is opened for repairs or any other work, on reconnection the pipe shall be purged of all air before hydrogen is allowed to pass through that pipe.(9)All electrical wiring and apparatus in the electrolyser room and hydrogen compression room shall be of flame-proof construction or enclosed in flame-proof fittings and no naked light or flame shall be allowed to be taken either in the electrolyser room or where compression and filling of the gases is carried on and such warning notices shall be exhibited in prominent places.(10)No part of the electrolyser plant and the gas holders and compressor shall be subject to welding, brazing, soldering or cutting until steps have been taken to remove any explosive substance from that part and render the part safe for such operations and after the completion of such operations, no

explosive substance shall be allowed to enter that part until the metal has cooled sufficiently to prevent risk of explosion.(11)No work of operation, repair or maintenance shall be under-taken except under the direct supervision of a person who, by his training, experience and knowledge of the necessary precautions against risk of explosion is competent to supervise such work. No electric generator after erection or repairs shall be switched on to the electrolysers unless the same is certified by the competent person 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 rule (7).Every part of the electrolyser plant and the gas holders and compressor shall have a regular schedule of overhaul and checking and every defect noticed shall he rectified forthwith.[Substituted by No. 3, dated 27.7.1987.][Schedule XV]Handling and Processing of Asbestos, Manufacture of any Article of Asbestos and any other Process of Manufacture or Otherwise in Which Asbestos is used in any Form

1. Application. This schedule shall apply to all factories or parts of factories in which any of the following processes is carried on:

(a)breaking, crushing, disintegrating, opening, grinding, mixing or sieving of asbestos and any other processes involving handling and manipulation of asbestos incidental thereto;(b)All processes in the manufacture of asbestos textiles including preparatory and finishing processes:(c)making of insulation slabs or sections, composed wholly or partly of asbestos, and processes incidental thereto;(d)making or repairing of insulating mattresses, composed wholly or partly of asbestos. and processes incidental thereto:(e)manufacture of asbestos card board and paper:(f)manufacture of asbestos cement goods:(g)application of asbestos by spray method:(h)sawing, grinding, turning, abrading and polishing in dry state of articles composed wholly or partly of asbestos;(i)cleaning of any room, vessel, chamber, fixture or appliance for the collection of asbestos dust; and(j)any other processes in which asbestos dust is given off into the work environment.

2. Definitions. For the purpose of this schedule

(a)"asbestos" means any fibrous silicate mineral and any admixture containing actinolite, amosite, anthophyllite, dry-solite, crocidolite, Tremolite or any mixture thereof whether crude, crushed or opened;(b)"asbestos textile" means yarn or cloth composed of asbestos or asbestos mixed with any other material;(c)"approved" means approved for the time being in writing by the Chief Inspector:(d)"breathing apparatus" means a helmet or face piece with necessary connection by means of which a person using it breathes air free from dust, or any other approved apparatus:(e)"efficient exhaust draught" means localised ventilation by mechanical means for the removal of dust so as to prevent dust from escaping into air of any place in which work is carried on. No draught shall be deemed to be efficient which fails to control dust produced at the point where such dust originates.(f)"preparing" means crushing, disintegrating and any other processes in or incidental to the opening of asbestos;(g)"protective clothing" means overalls and head covering which (in either case) will when worn exclude asbestos dust.

3. Tools and equipments. Any tool or equipment used in processes to which this schedule applies shall be such that they do not create asbestos dust above the permissible limit or are equipped with efficient exhaust draught.

4. Exhaust draught. (1) An efficient exhaust draught shall be provided and maintained to control dust from the following processes and machines:

(a)Manufacture and conveying machinery namely.(i)Preparing, grinding or dry mixing machines.(i)carding, card waste and ring spinning machine, and looms,(iii)machines or other plant fed with asbestos and(iv)machines used for the sawing, grinding, turning, drilling abrading or polishing in the dry state of articles composed wholly or partly of asbestos.(b)Cleaning and grinding of the cylinders or other parts of a carding machine:(c)Chambers, hopper or other structures into which loose asbestos is delivered or passes:(d)Work-benches for asbestos waste sorting or for other manipulation of asbestos by hand:(e)Work places at which the filling or emptying of sacks, skips or other portable containers, weighting or other process incidental thereto which is effected by hand, is carried on:(f)scale cleaning machines:(g)mixing and blending of asbestos by hand: and(h)any other process in which dust is given off into the work environment.(2)Exhaust Ventilation equipment provided in accordance with sub-paragraph (i) shall, while any work of maintenance or repair to the machinery, apparatus or other plant or equipment in connection with which it is provided is being carried on. be kept in use so as to produce an exhaust draught which prevents the entry of asbestos dust into the air of any work place.(3)Arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air of any work room.(4)The asbestos bearing dust removed from any workroom by the exhaust system shall be collected in suitable receptacles or filter bogs which shall be isolated from all work areas.

5. Testing and examination of ventilating systems. (1) All ventilating systems used for the purpose of extracting or suppressing dust as required by this schedule shall be examined and inspected once every week by 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.

(2)A register containing particulars of such examination and tests and the state of the plant and the repairs or alternation (if any) found to be necessary shall be kept and shall be available for inspection by an inspector.

6. Segregation in case of certain process. Mixing or blending by the hand of asbestos or making or repairing of insulating mattresses composed wholly or partly or asbestos shall not be carried on in any room in which any other work is clone.

7. Storage and distribution of loose asbestos. (1) All loose asbestos shall while not in use, be kept in suitable closed receptacles which prevent the escape of asbestos dust there from such asbestos shall not be distributed within a factory except in such receptacles or in a totally enclosed system of conveyance.

8. Asbestos sacks. -(1) All sacks used as receptacles for the purpose of transport of asbestos within the factory shall be constructed of impermeable materials and shall be kept in good repair.

(2)A sack which has contained asbestos shall not be cleaned by hand beating but by a machine, complying with paragraph-3.

9. Maintenance of floors and work place. (1) In every room in which any of the requirements of this schedule apply

(a)the floors, work-benches, machinery and plant shall be kept in a clean state and free from asbestos debris and suitable arrangements shall be made for the storage of asbestos not immediately required for use: and(b)the floors shall be kept free from any materials plant or other articles not immediately required for the work carried on in the room, which would obstruct the proper cleaning of the floor.(2)The cleaning as mentioned in sub-rule (1) shall so far as is practicable: as carried out by means of vacuum cleaning equipment so designed and constructed and so used that asbestos dust neither escapes nor is discharged into the air of any work place.(3)When the cleaning is done by any method other than mentioned in sub-paragraph (2): the persons doing cleaning work and any other person employed in that room shall be provided with respiratory protective equipment and protective clothing.(4)The vacuum cleaning equipment used in accordance with provisions of sub paragraph (2): shall be properly maintained and after each cleaning operation: its surfaces kept in a clean state and free from asbestos waste and dust.(5)Asbestos waste shall not be permitted to remain on the floors or other surfaces at the work place at the end of the working shift and shall be transferred without delay to suitable receptacles. Any spillage of asbestos waste occurring during the course of the work at any time shall be removed and transferred to the receptacles maintained for the purpose without delay.

10. Breathing Apparatus and protective clothing:- (1) An approved breathing apparatus and protective clothing shall be provided and maintained in good conditions for use of every person employed

(a)in chambers containing loose asbestos:(b)in cleaning, dust settling or filtering chambers of apparatus:(c)in cleaning the cylinders, including the doffer cylinders or other parts of a carding machine by means of hand stick: and(d)in filling, beating, or levelling in the manufacture or repair of insulating mattresses: and(e)in any other operation or circumstances in which it is impracticable to adopt technical means to control asbestos dust in the work environment within the permissible

limit.(2)Suitable accommodation in conveniently accessible position shall be provided for the use of persons when putting on or taking off breathing apparatus and protective clothing provided in accordance with this rule and for the storage of such apparatus and clothing when not in use.(3)All breathing apparatus and protective clothing when not in use shall be stored in the accommodation provided in accordance with sub-rule (2) above.(4)All protective clothing in use shall be de-dusted under an efficient exhaust draught or by vacuum cleaning and shall be washed at suitable intervals. The cleaning schedule and procedure should be such as to ensure the efficiency in protecting the wearer.(5)All breathing apparatus shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.(6)A record of the cleaning and maintenance and of the condition of the breathing apparatus shall be maintained in a register provided for that purpose which shall be readily available for inspection by an Inspector.(7)No person shall be employed to perform any work specified in sub-paragraph (1) for which breathing apparatus is necessary to be provided under that sub-paragraph unless he has been fully instructed in the proper use of that equipment.(8)No breathing apparatus provided in pursuance of sub-paragraph (1) which has been worn by a person shall be worn by another person unless it has been thoroughly cleaned and disinfected since last being worn and the person has been fully instructed in the proper use of that equipment.

11. Separate accommodation for personal clothing. A separate accommodation shall be provided in a conveniently accessible position for all persons employed in operations to which this schedule applied for storing of personal clothing. This should be separated from the accommodation provided under sub-paragraph (2) to prevent contamination of personal clothing.

12. Washing and bathing facilities. (1) There shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the processes covered by the schedule, adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 15 persons employed.

(2)The washing places shall have stand pipes places at intervals of not less than one meter.(3)Not less than one half of the total number of washing places shall be provided with bathroom.(4)Sufficient supply of clean towels made of suitable materials shall be provided, that such towels shall be supplied individually for each workers if so ordered by the inspector.(5)Sufficient supply of soap and nail brushes shall be provided.

13. Messroom :- (1) There shall be provided and maintained for the use of all workers employed in the factory covered by this schedule, remaining on the premises during the rest intervals, a suitable 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.

14. Prohibition of employment of young persons. No young person shall be employed in any of the process covered by this schedule.

15. Prohibition relating to smoking. No person shall smoke in any area where processes covered by this schedule are carried on. A notice in the language understood by majority of the workers shall be pasted in the plant prohibiting smoking at such areas.

16. Cautionary Notices. (1) Cautionary notices shall be displayed at the approaches and along the perimeter of every asbestos processing areas towns to all persons regarding:

(a)Hazards to health from asbestos dust,(b)Need to use appropriate protective equipment,(c)Prohibition of entry to unauthorised persons, or authorised persons but without protective equipment.(2)Such notices shall be in the language understood by the majority of the workers.

17. Air monitoring. To ensure the effectiveness of the control measures. monitoring of asbestos fibre in air shall be carried out once at least in every shift and the record of the results so obtained shall be entered in a register specially maintained for the purpose.

18. Medical facilities and records of medical examinations and test (1) The occupier of every factory or part of the factory to which the schedule applies, shall

(a)employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical checkup against the hazards involved and to diagnose and treat the industrial disease which are likely to creep in such type of process, and(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained [and keep maintaining for a minimum period of 40 years from the beginning of the employment or 15 years after retirement or cessation of employment whichever is later] [Inserted by No. 6 dated 11.9.1996 [18.9.1996]] in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

19. Medical examination by Certifying Surgeon. (1) Every worker employed in the processes specified in paragraph I shall be examined by a certifying surgeon within 15 days of his first employment. Such examination shall include pulmonary function tests, tests for detecting asbestos fibres in sputum and chest-X-ray. No workers shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the certifying surgeon.

(2)Every workers employed in the process referred to sub- para-graph (1) shall be re-examined by a certifying surgeon at least once in every twelve calendar months. Such examination shall wherever the certifying surgeon considers appropriate including all the tests specified in sub-paragraph (1) except chest-X-ray which will be carried out once in 3 years.(3)The certifying surgeon after examining a worker, shall issue a certificate of fitness in form 30. The record of examination and re-examination carried out shall be entered in the certificate & certificate shall kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of the tests, shall also be entered by the certifying surgeon in a health register in form 19.(4)The certificate of fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the certifying surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his finding in those documents should also include the period for which he considers that the said person is unfit to work in the said processes.(6)No person who has been found unfit to work as said in subparagraph (5) shall be re-employed or permitted to work in the said processes unless the certifying surgeon, after further examination, again certifies him fit for employment in those processes.

20. Exemption. If in respect of any factory, the Chief Inspector is specified that owing to the exceptional circumstances or in frequency of the processes or for any other persons all or any of the provisions of this schedule is not necessary for protection of the workers in the factory, the Chief Inspector of factories may by a certificate in writing which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any as he may specify therein.

[Schedule-XVI][Substituted by No. 3, dated 27.7.1987.]Manipulation of stone or any other material containing free silica.

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

2. Definitions. For the purpose of this schedule.

(a)"Manipulation" means crushing, breaking, chipping dressing, Binding, sieving, mixing, grading or handling of stone or any other material containing free silica or any other operation involving such stone or material.(b)"Stone or any other material containing free silica" means a stone or any other solid material containing not less than 5% by weight of free silica.

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

(a)damping the stone or other material being processed,(b)providing water spray,(c)enclosing the process,(d)isolating the process, and(e)providing localised exhaust ventilation are adopted so as to effectively control the dust in any place in the factory where any person is employed, at level equal to or below the maximum permissible level for silica dust as laid down in table 2 appended to Rule 123A:Provided that such measure as above said are not necessary if the process or operation itself is such that the level of dust created and prevailing does not exceed the permissible level referred to.

4. Maintenance of floors. (1) All floors or places where fine dust is likely to settle on and whereon any person has to work or pass shall be of impervious material and maintained in such condition that they can be thoroughly cleaned by a moist method or any other method which would prevent dust being air borne in the process of cleaning.

(2)The surface of every floor of every work room or place where any work is carried on or where any person has to pass during the course of his work shall be cleaned 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 operation are carried out.

6. Medical facilities and records of examinations and tests. (1) The occupier of every factory to which schedule applies shall:

(a)Employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical check up against the hazards involved and to diagnose and treat the industrial disease which are likely to creep in such type of process: and(b)Necessary facilities for the purpose referred to in clause (1).(2)The record of medical examination and appropriate test carried out by the said medical officer shall be

maintained in a separate register approved by the Chief Inspector of factories, which shall be kept readily available for inspection by the Inspector.

7. Medical examination by certifying surgeon. (1) Every worker employed in the processes specified in paragraph 1, shall be examined by a certifying surgeon within 15 days of his first employment. Such medical examination shall include pulmonary function tests and chest-X-ray. No worker shall be allowed to work after 15 days of certified fit for such employment by the certifying surgeon.

(2)Every worker employed in the said processes shall be re-examined by a certifying surgeon at least once in every twelve months. Such examination shall wherever the certifying surgeon considers appropriate include all the tests as specified in sub- paragraph (1) except chest-X-ray which will be once in 3 years.(3)The certifying surgeon after examining a worker, shall issue a certificate of fitness in form 30. 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-paragraph (1) and (2), including the nature and the results of the tests, shall also be entered by the certifying surgeon in a health register in form 19.(4)The Certificate of fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the certifying surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker. he shall make a record of his findings in the said certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit for work in the said processes.(6)No person who has been found unfit to work as said in subparagraph (5) above shall be re-employed or permitted to work in the said processes unless the certifying surgeon, after further examination, again certified him fit for employment in those processes.

8. Exemptions. If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the provisions of the schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing which he may in his desecration 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.

XVII

(Handling and manipulation of corrosive substances)

1. Definitions. For the purpose of this Schedule.

(a)"Corrosive operation" means an operation of manufacturing, storing, handling, processing, packing, or using any corrosive substance in a factory.(b)"Corrosive substance" includes sulphuric acid, nitric acid, hydrochloric acid, hydrofluoric acid, carbolic acid, phosphoric acid, liquid chlorine, liquid bromine, ammonia, sodium hydroxide and potassium hydroxide and a mixture thereof. and any other substance which the State Government by notification in the Official Gazette specify to be a corrosive substance.

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

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

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

4. Water facilities. -Where any corrosive operation is carried on, there shall be provided as close to the place of such operation as possible, a source of clean water at a height of 210 ems. (7 ft.) from a pipe of 1.25 cm. (1/2 in.) diameter and fitted with a quick acting valve so that in case of injury to the worker by any corrosive substance, the injured part can be thoroughly flooded with water. [Water sprinkler system should be provided over the ammonia receiver. Whenever necessary, in order to ensure continuous water supply, a storage tank having a minimum length, breadth and height of 210 cm., 120 cm., respectively or such dimensions as are approved by the Chief Inspector shall be provided as the source of clean water.]

[Inserted by No. 3, dated 27.7.1987.]

5. Cautionary Notice. A cautionary notice in the following form and printed in the language which majority of the workers employed understand, shall be displayed prominently close to the place where any of the operations mentioned in paragraph 2 above is carried out and where it can be easily and conveniently read by the workers. If any worker is illiterate, effective steps be taken to explain carefully to him the contents of the notice so displayed.

Cautionary NoticeDangerCorrosive substances cause severe burns and vapoursthereof may be extremely hazardous. In case of contactimmediately flood the part affected with plenty of water for atleast 15 minutes.Get Medical attention quickly.

6. Transport. [(a) Corrosive substances shall not be filled moved or carried except in [containers or through pipes and when they are to be transported in containers,] [Substituted by No.3, dated 27.7.1987] they shall be included in crates of sound construction and of sufficient strength].

(b)A container with a capacity of 11.5 litres (2-1/2 gallons) or more of a corrosive substance shall be placed in a receptacle or crate and then carried by more than one person at a height below the waist line unless a suitable rubber wheeled truck is used for the purpose.(c)Containers for corrosive substances shall be plainly labelled.

7. Devices for handling corrosive. - [(a) Tilting, lifting or pumping arrangements shall be used for emptying jars, carboys and other containers of corrosives] [Substituted by No. 3 dated 27.7.1987 and also by No. 1, dated 8.1.1991 [25.6.1992]].

(b)corrosive substance shall not be handled by bare hands but by means of a suitable scoop or other device.

8. Opening of Valves. Valves fitted to containers holding a corrosive substance shall be opened with great care. If they do not work freely, they shall not be forced open. they shall be opened by a worker suitably trained for the purpose.

9. Cleaning Tanks, Stills, etc. (a) In cleaning out or removing residues from stills or other large chambers used for holding any corrosive substance, suitable implements made of wood or other material shall be used to prevent production of ars-eniuratted hydrogen (Ursine).

(b)Whenever it is necessary for the purpose of cleaning or other maintenance work for any worker to enter chamber, tank, vat, pit or other confined space where a corrosive substance had been stored,

all possible precautions required under Section 36 of the Factories Act, 1948 shall, be taken to ensure the worker's safety.(c)Wherever possible, before repairs are undertaken to any part to equipment in which a corrosive substance was handled, such equipment or part thereof shall be freed of any adhering corrosive substance by adopting suitable methods.

10. Storage. (a) Corrosive substances shall not be stored in the same room with other chemicals, such as turpentine, carbides. metallic powders and combustible materials, the accidental mixing with which may cause a reaction which is either violent or gives rise to toxic fumes and gases.

(b)Pumping or filling overhead tanks, receptacles, vats or other containers for storing corrosive substances shall be so arranged that there is no possibility of any corrosive substance overflowing and causing injury to any person.(c)Every container having a capacity of twenty litres or more and every pipeline, valves, and fitting used for carrying corrosive substances shall be thoroughly examined [by competent person] [Inserted by NO. 3, dated 27.7.1987.] every year for finding out any defects and defects shall be removed forthwith. A register shall be maintained of every such examination made and shall be produced before the Inspector whenever required.[10 A. Safety Measures: 1. All the system pipe line should be of welded joints instead of flanged joints.

2. ISI valves should be provided in lines and periodical maintenance of valves should be checked.

3. Whatever corrosive substance if coming out of valves should be taken to scrubber for neutralisation through a close circuit system.

4. For the early detection of leakage of any corrosive substance sensitive devices should be provided.

5. Absorber of proper capacity should be provided.

6. Stand by generator of adequate capacity should be provided in factories for toxic gases.]

[Inserted by No. 3, dated 27.6.1987.]

11. Fire Extinguishers and Fire-fighting Equipment. An adequate number of suitable type of fire extinguishers or other firefighting equipment, depending on the nature of chemicals stored, shall be provided. Such extinguishers or other equipment shall be regularly tested and refilled. Clear instructions as to how the extinguishers or other equipment should be used, printed in the

language which majority of the workers employed understand, shall be affixed near each extinguisher or other equipment.

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

XVIII

(Manufacture or Manipulation of Carcinogenic Dye Intermediates)

Part I

1. Definition. (a) For the purpose of this Schedule a nitro or amino compound means a nitrated or ammoniated compound of aromatic hydrocarbons mentioned in Appendix A or B attached thereto.

(b)"Approval" means approved by the Chief Inspector.(c)"First Employment" means first employment in the said manufacturing process and also re-employment in such manufacturing process following any cessation of employment for continuous period exceeding three calendar months.(d)"Efficient Exhaust Draught" means localised ventilation effected by mechanical means for the removal of gas. vapour, dust or fume so as to prevent them from escaping into the air or 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, fumes or dust originate.(e)"Manipulation" shall include mixing, blending, filling, emptying, grinding, sieving, drying, packing, sweeping, handling, using or chemical procession of a nitro or amino compound.(f)"Air Line Respirator" means a helmet of face piece with necessary connections by means of which a person using it in a poisonous, or irritant atmosphere breathes ordinary air or any other suitable apparatus approved in writing by the Chief Inspector.

2. Cautionary Placard. Cautionary placard in the form specified in Appendix 'C' attached to this Schedule and printed in the language of the majority of the workers employed shall be affixed in prominent places frequented by them in the factory where the placards can be easily and conveniently read by the workers: and arrangement shall be made by the occupier to instruct

periodically all workers employed in the said manufacturing process regarding the precautions contained in the cautionary placard.

3. Prohibition relating to Employment of Woman and Young Persons. No Woman or young person shall be employed or permitted to work in any room in which the said manufacturing process is carried on or in which a nitro or amino compound is stored.

4. Air space. In every room in which the said manufacturing process is carried on there shall be at least 15 centimetres of air space excluding any space occupied by machinery, equipment or any other article for each person employed therein and in computing this air space no height over 4.25 metres shall be taken into account.

5. Efficient Exhaust Draught. Unless the said manufacturing process is completely enclosed so as not to give rise to dust or fume it shall not be carried on without the use of an efficient exhaust draught when a nitro or amino compound

(a)is introduced into a tank, hopper. machine or container or filled into cartridge; or(b)is ground, crushed, mixed, sieved or blended.

6. Floor of Work-Rooms. The floor of every work-room in which the said manufacturing process is 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 sound condition, (c) slope and provided with gutters, and (d) thorough by washed daily by means of hose-pipe and drain water shall be led into a sever through a closed channel.

7. Work benches. Work-benches on which a nitro or amino compound is manipulated shall (a) have a smooth impervious surface preferably of stainless steel and (b) shall be washed daily with a hose-pipe or cleaned by means of a suction cleaning apparatus at a time when other work is being carried on thereat.

8. Waste. (1) A suitable receptacle made of non-absorbable material with a tightly fitting cover shall be provided and used for depositing waste, like cloth paper or other material soiled with a nitro or amino compound.

(2)all such contaminated waste material shall be destroyed by burning at least once a week.

9. Empty Containers. Empty containers used for holding compounds included under Appendix A shall be thoroughly cleaned of their contents and treated with an inactivating agent before being discharged.

10. Decontamination of Pit, Tank, etc. (a) Before a worker enters a tank, pit kettle or any other confined space which contained a nitro or amino compound it shall be thoroughly washed and decontaminated.

(b)No part of the plant which has contained a nitro or amino compound shall be repaired or opened for repairs unless it has been emptied of such compound, thoroughly cleaned and decontaminated.(c)Records of such treatment shall be maintained in a register approved by the Chief Inspector and the register shall be made available for inspection when required by an Inspector.

11. Manual Handllng. A Nitro or amino compound shall not be required or allowed to be mixed, filled emptied or handled except by means of a scoop with a handle which shall be thoroughly cleaned daily.

12. Protective Wear. The occupier shall provide, maintained clean and in good repair protective clothing and other equipments as specified in the table below:

Table

Process	Protective clothing and other equipment
1	1
For manipulation of compounds mentioned in Appendix A & B	(a) Long pants and shirt or overalls with long sleeves andhead coverings. The shirt or overalls shall cover the neckcompletely.(b) Rubbergloves. rubber gum boots, rubber aprons and air line respirator.
For manipulation of compounds mentioned in appendix B.	(c) White clean clothing mentioned in (a) above in addition towhite clean Shirts. Single tand protective equipment as in (b)above.(d) White long sleeved apron.

12A. Instructions as regards risks. Every worker on his first employment shall be fully instructed on the properties of the chemical he has to handle and of the dangers involved. Workers shall also be instructed in the measures to be taken to deal with any emergency.

13. [Medical facilities and records of examinations and tests. (1) The occupier of every factory to which the schedule applies, shall

(a)Employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification training and experience conducting a thorough medical check up against the hazards involved and to diagnose and treat the industrial disease which are likely to creep in such type of processes and;(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examinations and appropriate test carried out by the said medical practitioner shall be maintained in separate register approved by the Chief Inspector of Factories, which shall be kept readily available for Inspection by the Inspector.

14. Medical Examination by the Certifying Surgeon. (1) Every worker employed in the said processes shall be examined by the Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for detection of methernoglobin in blood (Hematological tests) paranitrophenol in urine, pulmonary function tests and C.N.S. tests. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said processes shall re-examined by the Certifying Surgeon at least once in every six calendar months and such re-examination shall, wherever the Certifying Surgeon considers appropriate, include all the tests specified in sub-paragraph (1).(3)The Certifying Surgeon after examining a worker, shall issue a certificate of Fitness in Form 30. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory.The record of each examination carried out under sub-paragraphs (1) and (2) including the nature and the results of these tests, shall also be entered by the Certifying Surgeon in a health register in Form 19.(4)The certificate of fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit to work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully in capacitated in the opinion of the certifying surgeon, in which case the person affected shall be suitably rehabilitated.(6)No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes] [Substituted by No. 4, dated 8.1.1991 [25-6-1992]].

15. Washing and Bathing Facilities. - (1) The following washing and bathing facilities shall be provided and maintained in cleanly state and in good repair for the use of all persons employed in the said manufacturing process:

(a)A wash place under cover with clean towels, soap and nail brushes and with a least one stand pipe for every five such persons having constant supply of water.(b)50 per cent of the stand pipes provided under item (1) above shall be located in bath from 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 within a radius of 15 metres from the area housing the said manufacturing process.(d)Clean towels shall be provided individually to each worker, if so ordered by an Inspector.(e)In addition to taps mentioned under item (a) one stand pipe in which warm water made available shall be provided on each floor.(2)Arrangement shall be made to wash factory uniforms/clothes compulsorily everyday.

16. Washing and Bathing. (a) All workers employed in the said manufacturing process shall carefully wash their hands and face before taking of food or leaving the factory.

(b)Bath Register.-Workers employed in the said manufacturing process shall take a bath daily at the factory premises and enter their name in the bath register in token of having done so.

17. Food, Drinks, etc., prohibited in Work-room. No worker shall consume food, drink, pan, supari or tobacco or shall smoke in any work-room in which the said manufacturing process is carried on and no worker shall remain in any such room during intervals for meals or rest.

18. Cloak-room. There shall be provided and maintained in a clean state and in good repair for the use on the persons employed in the said manufacturing process (a) a cloak room with lockers having two compartments one for street clothes and the other, for factory clothes, (b) a place separate from the locker room and from the mess room, for the storage of protective equipment provided under paragraph 13. The accommodation so provided shall be under the care of a responsible person and shall kept clean.

19. Mess Room. There shall be provided and maintained for the use of all persons employed in the factory and remaining on the premises during the meal intervals, a mess room which shall be furnished with (a) tables and benches, and (b) means for warming food. The mess room shall be placed under the charge of a responsible person and shall be kept clean.

20. Time allowed for Washing. Before each meal and before the end of the days work at least ten minutes in addition to the regular intervals shall be allowed for washing to each person who has been employed in the said manufacturing process.

21. Drying Stoves. (1) Every drying stoves shall be efficiently ventilated to the outside air in such a manner that hot air from the stove shall not be drawn into any work room.

(2)No person shall enter stove to remove the contents until a free current of air has been passed through it by mechanical means.

22. Non-sparking Tools. Non-sparking tools shall be provided for the purpose of cleaning or repairing machinery or operating any process where vapours of betanaphtylamine are evolved.

23. Testing of Atmosphere etc. Amines in the atmosphere of the work-room where the manufacturing process is carried on shall be estimated once every week and records of results of such estimations shall be made available when required by an Inspector.

Part II

24. Separation of Processes. The said manufacturing process 'B' shall be carried on in rooms which shall not communicate with any other room except through a passage open entirely to outside atmosphere.

25. Limitation of Exposure. (1) No worker under the age of 40 years shall be engaged in the factory for the said manufacturing process 'B' for the first time after the date on which these rules come into force.

(2)Before the end of the day's work at least one hour shall be allowed for bathing to each person, who is employed in the said manufacturing process 'B' including the time allowed under paragraph 19.

26. Exemption. If in respect of any factory the Chief Inspector is satisfied that (owing to the exceptional circumstances or in frequency of the process or for any other reason) all or any of the provisions of this Schedule are not necessary for the protection of persons employed in the factory, he may by

certificate in writing exempt such factory from all or any of such provisions subject to such conditions as he may specify therein. Such certificates may at any time be revoked by the Chief Inspector.

Appendix(See paragraphs 2, 10, 13 & 15)The benzene's. toluences, xylenes, having undergone nitration once or several times (nitrodinitro and trinitro benzene and its homologues) and their chlorinated compounds. naphthelenes, having undergone nitration once or several times, aniline and its homologues (to ludine, xylidine, comidine), anisidine, phenetidine and therein chlorinated.nitrated and alkylated compounds (dimethylanilin toluylendiamine, toludine. phynylhydrazine, toluylhydrazine).Appendix(See paragraphs 2, 13, 15, 25 & 26)Alphanaphthylamine.Betanaphthylamine.Benezidine and its salts.Dianisidine.Tolidine.Dichlorobenzidine.Appendix(See paragraph 36)Cautionary PlacardAdvice to workers:- (1) Nitro and amino compounds or aromatic hydrocarbons are dangerous. In this factory you have to handle them frequently.(2)All items of protective wear provided should be made use of to safeguard your health.(3)Maintain scrupulous cleanliness at all times. Before meal wash hands and feet. A bath before leaving the factory is essential, taking care to wash the head weld.(4)If any chemical falls on your body, wash it off immediately with soap and water. Change clothing at once. if soaked with a cyanotic nitro or amino-compound. Contact the appointed doctor immediately.(5)Do not handle any nitro or amino compound with bare hands. Use a long handled scoop.(6)Avoid alcoholic drinks as these increase risk of poisoning.(7)In case of illness contact the Factory Manager and the appointed doctor.(8)Do not chew, eat, drink or smoke in the workroom or with soiled hands. Keep food and drink away from the work-place.(9)If you work with Betanaphthylamine or benezidine or its salts, alphanaphthylarnine or Dianisidine(a)Remember the serious effects will flow after a number of years if great care is not taken to observe absolute cleanliness of body, cloths, machinery and tools;(b)at meal time, wash face and hands twice with soap and water to remove all chemicals; wear a long sleeved clean apron while eating;(c)Before leaving the factory take a bath using soap and water twice; after this put on your home clothes.

XIX

(Solvent Extraction Plants)Process of extracting Vegetable Oil from oil cakes in Solvent Extraction Plants

1. Definitions. (a) "Solvent Extraction Plant" means the plant in which the process of extracting vegetable oils from oil cakes by the 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)"Flame Proof' enclosure as applied to electrical machinery or apparatus means an enclosure that will withstand, when covers or other access doors are properly secured, an internal explosion of the flammable gas or vapour which may enter or which may originate inside the enclosure without suffering damage and without communicating internal inflammation (or explosion) to the external flammable gas or vapour.(d)"Competent person" for the purpose of this Schedule shall be at least a member of the Institution of Engineers (India) or an Associate Member

of the said Institution with 10 years experience in a responsible position as may be approved by the Chief Inspector:Provided that a graduate in Mechanical Engineering or Chemical Technology with specialised knowledge of oils and fats and with a minimum experience of 5 years in a Solvent Extraction Plant shall also be considered to be a competent person.

2. Location and layout. (a) No solvent extraction plant shall be permitted to be constructed or extended to within a distance of 30 meters from the nearest residential locality.

(b)A 1.5 meter high continuous wire fencing shall be provided around the Solvent Extraction Plant up to a minimum distance of 15 meters from the plant.(c)No person shall be allowed to carry any matches or an open flame or fire inside the area bound by the fencing.(d)Boiler houses and other buildings where open flame processes are carried on shall be located at least 30 meters away from the Solvent extraction Plant.(e)If godowns and preparatory processes are at less than 30 meters distance from the Solvent Extraction Plant, these shall be at least 15 meters 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 sources of ignition.

3. Electrical installations. (a) All electrical motors and wiring and other electrical equipment installed or housed in Solvent Extraction Plant shall be of flame proof construction.

(b)All metal parts of the plant and building including various tanks and containers where solvents are stored or are present and all parts of electrical equipment not required to be energized shall be properly bounded together and connected to earth so as to avoid accidental rise in the electrical potential of such parts above the earth potential.

4. Restriction on smoking. Smoking shall 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. (a) All tools and equipment including ladders. chains and other lifting tackle required to be used in Solvent Extraction Plant shall be of non-sparking type.

(b)[No machinery or equipment in any solvent extraction plant shall be belt driven, unless the belt used is of such a type that it does not permit accumulation of static electricity to a dangerous level.] [Substituted by No.4, dated 8.1.1991 [25-6-1992]](c)No person shall be allowed to enter and work in the Solvent Extraction Plant if wearing cloths made of nylon or such fiber that can generate static electrical charge, or wearing footwear which is likely to cause sparks by friction.

6. Fire Fighting Apparatus. (a) Adequate number of portable fire extinguishers suitable for use against flammable liquid fires shall be provided in the Solvent Extraction plant.

(b)An automatic water spray sprinkler system on a wet pipe or open-head deluge system with sufficient supply of storage water shall be provided over Solvent Extraction Plant and throughout the building housing such plant.

7. Precautions against power failure. Provision shall be made for the automatic cutting off of steam in the event of power failure and also for emergency over head 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 hopper and a magnetic separator shall be provided to remove any pieces of iron during its transfer.

9. Venting. (a) Tanks containing solvents shall be protected with emergency venting to relieve excessive internal pressure in the event of fire.

(b)All emergency relief vents shall terminate at least 6 metres above the ground and be so located that vapours will not re-enter the building in which Solvent Extraction Plant is located.

10. Waste water. Process waste water shall be passed through a flash evaporator to remove any solvent before it is discharged into a sump.

11. Ventilation. The Solvent Extraction Plant shall be well ventilated and if the plant is housed in a building, the building shall be provided with mechanical ventilation with provision for at least six air changes per hour.

12. House keeping. (a) Solvents shall not be stored in an area covered by Solvent Extraction Plant except in small quantities which shall be stored in approved safety cans.

(b)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.(c)Space within the Solvent Extraction Plant and within 15 metres from the plant shall be kept free from any combustible materials and any spills of oil or solvent, shall be cleaned up immediately.

13. Examination and repairs. (a) The Solvent Extraction Plant shall be examined by the competent person to determine any weakness or corrosion and wear once in every 12 months. Report of such examination shall be supplied to the Inspector with his observation as to whether or not the plant is in safe condition to work.

(b)No repairs shall be carried out to the machinery or plant except under the direct supervision of the competent person.(c)Facility shall be provided for purging the plant with inert gas [or steam] [Inserted by No. 4, dated 8.1.1991 [25-6-92]] before opening for cleaning or repairs and before introducing solvent after repairs.

14. Operating personnel. The operation of the plant and machinery in the Solvent Extraction Plant shall be in the charge of such duly qualified and trained person are certified by the competent person to be fit for the purpose and no other person shall be allowed to operate the plant and machinery.

15. Employment of women and young persons. No woman or young person shall be employed in the Solvent Extraction Plant.

16. Vapour detection. A suitable type of combustible gas indicator shall be provided and maintained in good working order and a schedule of routine sampling of atmosphere at various locations as approved by the Chief Inspector shall be drawn out and entered in a register maintained for the purpose.

17. Further precautions in cases of batch type Solvent Extraction Plants. In case of batch type Solvent Extraction Plants the following further precautions shall be observed:

(a)When the solvent is removed from batch extractor by vacuum gauges shall be provided and tests shall be carried out to ensure that a minimum vacuum of 650 mm (26") mercury is obtained and maintained steadily for a minimum period of 30 minutes before the extractor is allowed to be opened for discharge of cake or for persons to enter.(b)When on opening the door of a batch extractor the extracted meal cannot be dislodged from the extractor freely, door shall be closed and the material reheated (dry) under vacuum for at least 60 minutes before the door is reopened.(c)Where solvent is removed by steam heating, the presence of the solvent shall be tested at the vent provided on the top of the vessel before opening the vessel.(d)A log book of operations with the following particulars shall be maintained and made available on demand to the Inspector: (i)vacuum gauge reading for each charge.(ii)testing of continuity of electrical bending and earthing system,(iii)loss of solvent every 24 hours or loss per tonne of raw materials used.

18. [Exemption. If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the processes of for any other reasons, all or any of the provisions of this schedule is not necessary for the protection of the workers in factory, the Chief Inspector may by a certificate in writing (which he may in his discretion revoke at any time) exempt such factory from all or any of such provision subject to condition. if any, as he may specify therein.]

[Added by No. 4, dated 8.1.1991 [25-6-1992]]

XX

Manufacture or manipulation of manganese and its compounds

1. Definitions. For the purpose of this Schedule:

(a)"Manganese process" means processing, manufacture or manipulation or 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 an ore or mixture containing manganese.(d)"Efficient Exhaust Ventilation" means localised ventilation effected by mechanical means for the removal of dust or fume or mist at its source of origin so as to prevent it from escaping into the atmosphere of any place where any work is carried on. No. draught shall be deemed to be efficient which fails to remove the dust or fume or mist at the point where it is generated and fails to prevent it from escaping into and spreading into the atmosphere of a work place.

2. Application. This schedule shall apply to every factory in which or in any part of which any manganese process is carried on.

3. Exemptions. Where the Chief Inspector is satisfied that owing to any exceptional circumstances, or infrequency of the process, or for any other reason, application of all or any of the provisions of this schedule is not necessary for the protection of the persons employed in any factory, he may. by an order in writing, which he may at his discretion revoke, exempt such factory from all or any of the provisions on such conditions and for such period as he may specify in the said order.

4. Isolation of a process. Every manganese process which may give risk to dust, vapour or mist containing manganese, shall be carried on in a totally enclosed system or otherwise effectively isolated from other processes so that other plants and process and other parts of the factory and persons employed on other work of process may not be affected by the same.

5. Ventilation of process. No process, in which any dust, vapour or mist containing manganese is generated, shall be carried out except under an efficient exhaust ventilation which shall be applied as near to the point of generation as practicable.

6. [Medical 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 who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical check up against the hazards involved and to diagnose and treat the Industrial diseases which are likely to creep in such type of processes, and(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector] [Substituted by No.4, dated 8.1.1991 [25-6-1992]].

6A. [Medical examination by the Certifying Surgeon. (1) Every worker employed in any manganese process shall be medically examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include, tests for detection of serum calcium, serum phosphate and manganese in blood and urine and also include steadiness tests and other neuro-muscular co-ordination tests. No workers shall be allowed to work after 15 days of his first employment in the factory unless certified for such employment by the Certifying Surgeon.

(2)Every worker employed in a manganese process shall be re-examined by a Certifying Surgeon at least once in every three calendar months and such examination shall wherever the Certifying Surgeon considers appropriate, include all the tests in sub-paragraph (1).(3)The Certifying Surgeon after examining worker, shall issue a certificate of fitness in Form 30. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the Manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of these tests, shall also be entered by the Certifying Surgeon in a health register in Form 19.(4)The certificate of Fitness and the health

register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that the worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit to work in the said process.(6)No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination. again certifies him fit for employment in those processes.][Added by No.4. dated 8.1.1991 [25-6-1992]]

7. Personal Protective Equipment (i) The occupier of the factory shall provide and maintain in good and clean condition suitable overalls and head coverings for all persons employed in any manganese process and such overalls and head coverings shall be worn by the persons while working on manganese process.

(ii)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.(iii)The occupier of the factory shall provide and maintain for the use of all persons employed, suitable accommodation for the storage and make adequate arrangements for cleaning and maintenance of personal protective equipments.

8. Restriction in employment of women and young persons. No woman or person under 18 years of age shall be employed or permitted to work in any manganese process.

9. Food and drinks 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 work room in which any manganese process is carried on.

10. Mess-room. There shall be provided and maintained for the use of the persons employed in a manganese process a suitable mess room which shall be furnished with sufficient tables and benches and adequate means for warming of food. The mess room shall be placed under the charge of a responsible person and shall be kept clean.

11. Washing facilities. There shall be provided and maintained in a clean state and in good condition, for the use of persons employed on manganese process, a wash place under cover with

(i)a trough with a smooth impervious surfaces fitted with a waste pipe without plug. The trough shall be of sufficient length to allow at least 60 centimetres for every ten such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimetres: or at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water; and(ii)sufficient supply of soap or other suitable cleaning material and nail brushes and clean towels.

12. Cloak-room. If the Chief Inspector so requires, there shall be provided and maintained for the use of persons employed in manganese process a cloak room for clothing put off during working hours with adequate arrangement for drying the clothing.

13. Cautionary placard and instructions. Cautionary notices in the form given below 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 protect themselves. The notices shall always be maintained in a legible condition.

Cautionary NoticeManganese and Manganese Compounds

1. Dust fumes and mists of manganese and 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 equipments provided.

6. When required to work in situations where dusts, fumes or mists are likely to be inhaled, use respiratory protective equipment provided for the purpose.

7. If you get severe headaches, prolonged sleeplessness or abnormal sensations on the body, report to the manager who would make arrangements for your examination and treatment.

XXI

Manufacture, Handling and use of Benzene

1. The schedule is made to provide protection against hazards of poisoning from benzene and shall apply in respect of factories or parts thereof in which benzene or substances containing benzene are manufactured, handled or used.

2. Definitions. For the purpose of this schedule.

(a)'Substances containing benzene' means substances wherein benzene content exceeds 1 per cent by volume.(b)'Substitute' means a chemical which is harmless or less harm-ful than benzene and can be used in place of benzene.(c)'Enclosed system' means a system which will not allow escape of benzene vapours to the working atmosphere.(d)"Efficient exhaust draught" means localised ventilation effected by mechanical means for the removal of gases, vapours and dusts or fumes so as to prevent them from escaping into the air of any workroom. No draught shall be deemed to be efficient if it fails to remove smoke generated at the point where such gases, vapours, fumes of dusts originate.

3. Prohibition and substitution. [(a) Use of benzene and substances containing benzene is prohibited in the following processes:

(i)Manufacture of varnishes, paints and thinners, and(ii)cleaning and de-greasing operations.][Inserted by No.4, dated 8.1.1991 [25-6-1992]](b)[] [Re-numbered by No. 4, dated 8.1.1991 [25-6-92].] 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.(c)Where suitable substitutes are available, they shall be used instead of benzene or substances containing benzene. This provision, however, shall not apply to the processes specified in Appendix (A).(d)The Chief Inspector may, subject to confirmation by the State Government, permit exemption from the percentage laid down in clause (2)(a) and also from the provisions of sub-clause (b) temporarily under conditions and within limits of time to be determined after consultation with the employers and workers concerned.

4. Protection against inhalation. (a) The process involving the use of benzene or substances containing benzene shall as far as practicable be carried out in an enclosed system.

(b)Where, however, it is not practicable to carry out the process in an enclosed system, the work room in which benzene or substances containing benzene are used shall be equipped with an efficient exhaust draught or other means for the removal of benzene vapours to prevent heir escape into the air of the work room so that the concentration of benzene in the air does not exceed 25 parts per million by volume or 80 mg/m 3.(c)Air analysis for the measurement of concentration or benzene vapours in air shall be carried out every 8 hours or at such intervals as may be directed by the Chief inspector at places where process involving use of benzene is carried on and the result of such analysis shall be recorded in a register specially maintained for this purpose. If the concentration of benzene vapours in air as measured by air analysis, exceeds 25 parts per million by volume or 80 mg./3m., the manager shall forthwith report the concentration to the Chief Inspector stating the reasons for such increase.(d)Workers, who for special reasons are likely to be exposed to concentration of benzene in the air of the work-room exceeding the maximum referred to in clause (b) shall be provided suitable respirators or face masks. The durations of such exposure shall be limited as far as possible.

5. Measure against skin contact. -(a) Workers who are likely to come in contact with liquid benzene or liquid substances containing benzene, shall be provided with suitable gloves, aprons, boots and where necessary vapour tight chemical goggles made of material not affected by benzene or its vapours.

(b)The protective wear referred to in sub-clause (a) shall be maintained in good condition and inspected regularly.

6. Prohibition relating to employment of women and young persons. No woman or young person shall be employed or permitted to work in any work-room involving exposure to benzene or substances containing benzene.

7. Labelling. Every container holding benzene or substances containing benzene shall have the word "Benzene" and approved danger symbols clearly visible on it and shall also display information on benzene content, warning about toxicity and warning about inflammability of the chemical.

8. Improper use of benzene. (a) The use of benzene or substances containing benzene by workers for cleaning their hands or their work clothing shall be prohibited.

(b)Workers shall be instructed on the possible dangers arising from such misuse.

9. Prohibitions of consuming food, etc. in work-rooms. No worker shall be allowed to store or consume food or drink in the work-room in which benzene or substances containing benzene are manufactured, handled or used. Smoking and chewing tobacco or pan shall be prohibited in such work-rooms.

10. Instructions as regards risks. Every worker on his first employment shall be fully instructed on the properties of benzene or substances containing benzene which he has to handle and of the dangers involved. Workers shall also be instructed on the measures to be taken to deal within an emergency.

11. Cautionary notices. Cautionary notices in the form specified in Appendix B and presented in the language easily read and understood by the majority of the workers shall be displayed in prominent places in the work-rooms where benzene substances containing benzene are manufactured, handled or used.

12. Washing facilities, cloak room and mess room. In factories in which benzene or substances containing benzene are manufactured, handled or used, the occupier shall provide and maintain in clean state and in good repair.

(a)washing facilities under cover of the standard of at least one tap for every 10 persons having constant supply of water with soap and a clean towel:Provided individually to each worker, if so ordered by the Inspector;(b)a cloak room with lockers for each worker, having two compartments one for street clothing and one for work clothing;(c)a mess room furnished with tables and benches with means for warming food, provided that where a canteen or other proper arrangements exist for the workers to take their meals, the requirements of mess room shall be dispensed with.

13. [Medical facilities and records of examinations and tests. (1) The occupier of every factory to which the schedule applies shall

(a)employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical checkup against the hazards involved and to diagnose and treat the industrial diseases which are likely to creep in such type of processes; and(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall kept readily available for inspection by the Inspector].[Substituted by No.4. dated 8.1.1991 [25-6-1992]](1)[Every worker employed in processes mentioned in paragraph 1, shall be examined by the Certifying Surgeon within 15 days of his first employment, such examination shall include tests for detection of phenol in urine and determination if urinary sulphide ratio and C.N.S. and haematological tests. No. worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.(2)Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at least once in every twelve calendar months and such examination shall, wherever the Certifying Surgeon considers appropriate, include the tests specified in sub-paragraph (1). Further, every worker shall also be examined once in every three calendar months by the factory medical officer.(3)The Certifying Surgeon after examining a worker, shall issue a Certificate of fitness in Form No.30. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of these tests, shall also be entered by the Certifying Surgeon in a health register in Form 19.(4)The certificate of fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his finding in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit to work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully In capacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.(6)No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon; after further examination: again certifies him fir for employment in those processes.][Added by No.4, dated 8.1.1991 [25-6-1992]]Appendix 'A'[Clause 3(b)](1)Production of benzene.(2)Process where benzene is used for chemical synthesis.(3)Motor spirits (used as fuel).Appendix 'B'[Clause 11](a)The hazards: (i)Benzene and substances containing benzene are harmful.(ii)Prolonged or repeated breathing of benzene vapours may result in acute or chronic poisoning.(iii)Benzene can also be absorbed through skin which may cause skin and other diseases.(b)The preventive measures to be taken: (i)Avoid breathing of benzene vapours.(ii)Avoid prolonged or repeated contact of benzene with the skin.(iii)Remove benzene soaked or wet clothing promptly.(iv)If any time you are exposed to high concentration of benzene vapours and exhibit the sign and symptoms such as dizziness, difficulty, in breathing, excessive excitation and losing of consciousness, immediately inform your factory manager.(v)Keep all the containers of benzene closed.(vi)Handle, use and process benzene and substances containing benzene carefully in order to prevent their spillage on floor.(vii)Maintain good

house-keeping.(c)The protective equipment to be used: (i)Use respiratory protective equipment in places where benzene vapours are present in high concentration.(ii)In emergency, use self generating oxygen mask or oxygen or air cylinder marks.(iii)Wear hand gloves, aprons, goggles and guru boots to avoid contact of benzene with your skin and body parts.(d)The first-aid measure to be taken in case of acute benzene poisoning: (i)Remove the clothing immediately if it is wetted with benzene.(ii)If liquid benzene enters eyes, flush thoroughly for at least 15 minutes with clean running water and immediately secure medical attention.(iii)In case of unusual exposure to benzene vapour, call a physician immediately. Until he arrives, do the following:If The Exposed Person is Conscious:(A)Move him to fresh air in open.(B)Lay him down without a pillow and keep him quiet and warm.If The Exposed Person is Unconscious:(A)Lay him down preferably on the left side with the head low.(B)Remove any false teeth, chewing gum, tobacco or other foreign objects which may be in his mouth.(C)Provide him artificial respiration in case difficulty is being experienced in breathing.(D)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's. Oxygen should be administered by a trained person only.

XXII

(Carbon Disulfide Plants)

1. Application. (i) This Schedule shall apply to all electric furnaces in which carbon disulfide is generated and all other plants where carbon disulfide after generation, is condensed, refined and stored.

(ii)These rules are in addition to and not in derogation of any of the provisions of the Act and Rules made thereunder.

2. Construction, Installation & Operation. (a) The buildings in which electric furnaces are installed and carbon disulfide after generation is condensed and refined shall be segregated from other parts of the factory and shall be of open type to ensure optimum ventilation and the plant lay out shall be such that only a minimum number of workers are exposed to the risk of any fire or explosion at any one time.

(b)Every electric furnace and every plant in which carbon disulfide is condensed, refined and stored with all their fittings and attachments shall be of good construction, sound material and of adequate strength to sustain the internal pressure to which the furnace or the plant may be subjected and shall be so designed that carbon disulfide liquid and gas are in closed system during their normal working.(c)The electric furnace supports shall be firmly grouted about 0.75 meters in concrete or by other effective means.(d)Every electric furnace shall be installed and operated according to manufactures instructions and these instructions shall be clearly imparted to the personnel in-charge of construction and operation.(e)The instructions regarding observance of correct furnace temperature sulfur doze, admissible current/power consumption and periodical checking of

charcoal level shall be strictly complied with.

3. Electrodes. (a) Where upper ring electrode (s), 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.

(b)The arrangement for cooling water referred to in clause (a) shall be connected with automatic alarm system which will actuate in the event of interruption of cooling water in the electrodes and give visible and audible alarm signals in the control room and simultaneously stop power supply for the furnace operation and to stop the further supply of water. The alarm system and the actuating device shall be checked every day.

4. Charcoal level indicator and vibrator. Means shall be provided on each electric furnace for indicating the correct level of charcoal in the furnace and for vibrating the charcoal. This means shall be employed as often as necessary to maintain correct charge and level of the charcoal.

5. Charcoal Separator. A cyclone type of charcoal separator shall be fitted on the off take pipe between the electric furnace and sulphur separator to prevent entry of pieces of charcoal into the condensers and piping.

6. Rupture discs and safety seal. (a) 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.

(b)A safety water seal shall be provided and tapped from a point between the charcoal separator and the sulphur separator.

7. Pyrometer and Manometers. (a) Each electric shall be fitted with adequate number of pyrometer to make a correct assessment of the temperature at various points in the furnace. The dials for reading the temperatures shall be located in the control room.

(b)Manometer shall be provided for indicating pressure(i)in the off take pipe before and after the sulphur separator; and(ii)in primary and secondary condensers.

8. Check valves. All piping carrying carbon disulfide shall be fitted with check valves at suitable positions so as to prevent gas from flowing back into any electric furnace in the event of its shut down.

9. Inspection and Maintenance of Electric furnaces. (a) Every electric furnace shall be inspected internally by a competent person

(i)before being placed in service after installation;(ii)before being placed in service after reconstruction or repairs; and(iii)periodically every time the furnace is opened for cleaning or de-ashing or for replacing electrodes.(b)When an electric furnace is shut down for cleaning or de-ashing(i)the brick lining shall be checked for continuity and any part found defective removed.(ii)after removal of any part of the lining, referred to in (a) the condition of the shell shall be closely inspected, and(iii)any plates forming shell found corroded to the extent that safety of the furnace is endangered shall be replaced.

10. Maintenance of records. The following hourly records shall be maintained in a log book. - (i) Manometer readings at the points specified in 7 (b) (i) and (ii):

(ii)Gas temperature indicated by pyrometer's and all other vital points near the sulfur separator and primary and secondary condensers:(iii)Water temperature and flow of water through the siphon in the electrodes: and(iv)Primary and secondary voltages and current and energy consumed.

11. Electrical apparatus, wiring and fittings. All buildings in which carbon disulfide is refined or store shall be provided with electrical apparatus, wiring and fittings which shall afford adequate protection from fire and explosion.

12. Prohibitions 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 disulfide is refined or stored, and a notice in the language understood by a majority of the workers shall be pasted in the plant prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked light or spark into such rooms.

13. Means of escape. Adequate means of escape shall be provided and maintained to enable persons to move to a safe place as quickly as possible in case of an emergency. At least two independent staircases of adequate width shall be provided in every building housing the furnaces at reasonable intervals at opposite ends. These shall always be kept clear of all obstructions and so designed as to afford easy passage.

14. Warnings in case of fire. There shall be adequate arrangements for giving warnings in case of fire or explosion which shall operate on electricity and in case of failure of electricity by some mechanical means.

15. Fire fighting equipment. (a) Adequate number of suitable fire extinguishers or other fire fighting equipment shall be kept in constant for dealing with risks involved and depending on the amount and nature of materials stored.

(b)Clear instruction as to how the extinguishers or other equipment should be used printed in the language which the majority of the workers employed understand, shall be affixed to each extinguisher or other equipment and the personnel trained in their use.

16. Bulk sulfur. (a) Open or semi-enclosed spaces for storage of bulk sulfur 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's and matches and other sources of ignition do not come in contact with the clouds of dust rising during handling of bulk sulfur.

(b)All enclosures for bulk sulfur shall be of non-combustible construction, adequately ventilated and so designed as to provide a minimum of ledges on which dust may lodge.(c)The bulk sulfur 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 sulfur is shovelled or otherwise removed by hand.(d)No repairs involving flames, heat or use of hand or power tools shall be made in the enclosure where bulk sulfur is stored.

17. Liquid sulfur. Open flames, electric sparks and other sources of ignition, including smoking and matches, shall be excluded from the vicinity of molten sulfur.

18. Training & Supervision. (a) All electric furnaces and all plants in which carbon disulfide is condensed, refined or stored shall be under adequate supervision at all times while the furnaces and plant are in operation.

(b)Workers in-charge of operation and maintenance of electric furnaces and the plants shall be properly qualified and adequately trained.

19. Washing facilities. The occupier shall provide and maintain in a clean state and in good repair, for the use of all persons employed, wash place under cover with at least one tap or stand pipe, having a constant supply of clean water for every five such persons, the taps or stand pipes being spaced not less than 120 centimetres apart with a sufficient supply of soap and clean towels: provided that towels shall be supplied individually to each worker, if so ordered by the Inspector.

All the workers employed in the sulfur storage, handling and melting operations shall be provided with a nail brush.

20. Personal protective equipment. (a) Suitable goggles and protective clothing consisting of overalls without pockets, gloves and footwear shall be provided for the use of operatives

(i)when operating valves or cocks controlling fluids, etc.(ii)drawing off of molten sulfur from sulfur pots, and(iii)handling charcoal or sulfur.(b)Suitable respiratory protective equipment shall be provided and stored in the appropriate place for use during abnormal conditions or in an emergency.(c)Arrangements shall be made for the proper and efficient cleaning of all such protective equipment.

21. Cloak-room. 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 working hours and a suitable place separate from the cloak room for the storage of overall of working clothes. The accommodation so provided shall be placed in the charge of a responsible persons 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.

XXIII

(Manufacture and Manipulation of Dangerous Pesticides)

1. Definitions. For the purpose of this Schedule:

(i)'Dangerous Pesticides' means any product proposed or used for controlling, destroying or repelling any pest or for preventing growth or mitigating effects of such growth including any of its

formulations which is considered toxic under and is covered by the Insecticides Act, 1968 and the rules made thereunder and any other product, as may be notified from time to time by the State Government.(ii)'Manipulation' includes mixing, blending, formulating, filling, emptying, packing or otherwise handling.(iii)'Efficient exhaust draught' means localized mechanical ventilation for removal of smoke, gas, vapour, dust, fume or mist so as to prevent them from escaping in the air of any work-room in which work is carried on. No exhaust draught shall be considered efficient if it fails to remove smoke generated at the point where such gas, fume, dust, vapour or mist originates from the process.(iv)'First Employment' means first employment in any manufacturing process to which this Schedule applies and also includes re-employment in the said manufacturing process following any cessation of employment for a continuous period exceeding three calendar months.(v)[x x x] [Omitted by No. 4, dated 8.1.1991 [25-6-92]]

2. Application. This Schedule shall apply in respect of all factories or any plant thereof in which the process of manufacture or manipulation of dangerous pesticide hereinafter referred to as the said manufacture or manufacturing process is carried on.

3. Instruction to workers. Every worker on his first employment shall be fully instructed on the properties including dangerous properties of the chemicals handled in the said manufacturing process and the hazards involved. The employees shall also be instructed in the measures to be taken to deal with any emergency. Such instructions shall be repeated periodically.

4. Cautionary notice and Placards. Cautionary notices and placards in the form specified in Appendix I of 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 or the manager of the factory to periodically instruct the workers regarding the health hazards arising in the said manufacturing process and methods of protection. Such notices shall include brief instructions regarding the periodical clinical tests required to be undertaken for protecting health of the workers.

5. Prohibition relating to Employment of Women or Young Persons. No women or young persons 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, drink and Smoking prohibited. - (1) No food, drink, tobacco, pan or supari shall be brought in or consumed by any worker into any work-room in which the said manufacturing process is carried out.

(ii)Smoking shall be prohibited in any work-room in which the said manufacturing process is carried out.

7. [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 who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical check up against the hazards involved and to diagnose and treat the industrial disease which are likely to creep in such type of process. and:(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories which shall be kept readily available for Inspection by the Inspector.

8. Medical examination by the Certifying Surgeon. (1) Every worker employed in the processes mentioned in paragraph 1 shall be examined by the Certifying Surgeon within 15 days of his first employment. Such examination in respect of Halogenated pesticides shall include test for determination of the chemical in blood and in fat tissues EEG abnormalities and memory tests. In respect of organo phosphorous compounds, such examination shall include test for depression of cholinesterase in plasma and red blood cells. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said process shall be re-examined by a Certifying Surgeon at least once in every six calendar months. Such examination shall, wherever the Certifying Surgeon considers appropriated, include the test specified in sub-paragraph (1). Further every worker employed in the said processes shall also be examined once in every three months by the factory medical officer.(3)The Certifying Surgeon after examining a worker shall issue a Certificate of fitness in Form No.30. The record of examination & re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the Manager of the factory. The record of each examination carried out under sub-paragraphs (1) and (2), including the nature and the results of these tests, shall also be entered by the Certifying Surgeon in a health register in Form. 19.(4)The certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve

special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include the period for which he considers that the said person is unfit to work in the said processes.(6)No person who has been found unfit to work as said in sub-paragraph (5) shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon after further examination, again certifies him fit for employment in those processes] [Substituted by No. 4, dated 8.1.1991 [25-6-1992]].

9. Protective clothing and protective equipment. (1) Protective clothing consisting of long pants and shirts or overalls with long sleeves and head coverings shall be provided for all workers employed in the said manufacturing process.

(2)(a)Protective equipments consisting of rubber gloves, gum boots, rubber aprons, chemical safety goggles and respirators shall be provided for all workers employed in the said manufacturing process.(b)Gloves, boots, aprons shall be made from synthetic rubber where a pesticide contains oil.(3)Protective clothing and equipment shall be worn by the workers supplied with such clothing and equipment.(4)Protective clothing and equipments shall be washed daily from inside and outside if the workers handle pesticides containing nicotine or phosphorous and shall be- washed frequently if handling other pesticides.(5)Protective clothing and equipment shall be maintained in good repair.

10. Floors and work benches. -(1) Floors in every work room where dangerous pesticides are manipulated shall be of cement or other impervious material giving a smooth surface.

(2)Floors shall be maintained in good repairs, provided with adequate slope leading to a drain and thoroughly washed once a day with hose pipe.(3)Work benches where dangerous pesticides are manipulated shall be made of smooth, non-absorbing material preferably stainless steel and shall be cleaned at least once daily.

11. Spillage and waste. (1) If a dangerous pesticide during its manipulation splashes or spills on the work bench, floor or on the protective clothing worn by a worker, immediate action shall be taken for thorough decontamination of such areas or articles.

(2)Cloth, rags, paper or other material soaked or soiled with a dangerous pesticide shall be deposited in a suitable receptacle with tight fitting cover. Contaminated waste shall be destroyed by burning at least once a week.(3)Suitable deactivating agents, where available, shall be kept in a readily accessible place for use while attending to a spillage.(4)Easy means or access shall be provided to all parts of the plant for cleaning, maintenance and repairs.

12. Empty containers used for dangerous pesticides. Containers used for dangerous pesticides shall he thoroughly cleaned of their contents and treated with an inactivating agent before being discarded or destroyed.

13. Manual handling. (1) A dangerous pesticide shall not be required or allowed to be manipulated by hand except by means of a long handled scoop.

(2)Direct contact of any part of the body with dangerous pesticide during its manipulation shall be avoided.

14. Ventilation. (1) In every work room or area where a dangerous pesticide is manipulated adequate ventilation shall be provided at all times by the circulation of fresh air.

(2)Unless the process is completely enclosed, the following operations during manipulation of a dangerous pesticide shall not be undertaken without an efficient exhaust draught (a)emptying a container holding a dangerous pesticide,(b)blending a dangerous pesticide,(c)preparing a liquid or powder formulation containing a dangerous pesticide.(d)Changing or filling a dangerous pesticide into a container tank hopper or machine or small sized containers.(3)In the event of a failure of the exhaust draught provided on the above operation, the above operations shall be stopped forthwith.

15. Time allowed for washing. (1) Before each meal and before the end of the day's work at least ten minutes in addition to the regular rest interval shall be allowed for washing to each worker engaged in the manipulation of dangerous pesticide.

(2)Every worker engaged in the manipulation of dangerous pesticides shall have a thorough wash before consuming any food and also at the end of the days work.

16. Washing and bathing facilities. (1) There shall be provided and maintained in clean state and in good repair for the use of all workers employed in the factory where the said manufacturing process is carried on, adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 5 persons employed.

(2)The washing places shall have standpipes placed at intervals of not less than one metre.(3)Not less than one-half of the total number of washing places shall be provided with bath rooms.(4)Sufficient supply of clean towels made of suitable material shall be provided:Provided that such towels shall be supplied individually for each worker if so ordered by the Inspector.(5)Sufficient supply of soap and nail brushes shall be provided.

17. Cloak room. 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 cloak room for clothing put off during working hours with adequate arrangements for drying clothing, if wet.(b)Separate and suitable arrangements for the storage of protective clothing provided under paragraph 9.

18. Mess room. 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 mess room which shall be furnished with

(a)sufficient tables and benches with back rest, and(b)adequate means for warming food.The mess room shall be placed under the charge of a responsible person and shall be kept clean.

19. Exemption. If in respect of any factory the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the said manufacturing process or for any other reason, which he shall record in writing, all or any of the provision of this Schedule are not necessary for the protection of the workers employed in the factory, he may, by a certificate in writing, exempt such factory from all or any of the provisions, on such conditions as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector after recording his reasons therefor.

20. Manipulation not to be undertaken. Manufacture or manipulation of a pesticide shall not be undertaken in any factory unless a certificate regarding its dangerous nature or otherwise is obtained from the Chief Inspector.

Appendix-1Cautionary Notice (Insecticides & Pesticides)(See clause 4)

1. Chemicals handled in this plant are poisonous substances.

2. Smoking, eating food or drinking, chewing tobacco in this area is prohibited, No foodstuff or drink shall be brought in this area.

3. Some of these chemicals may be absorbed through skin and may cause poisoning.

4. A good wash shall be taken before meals.

5. A good bath shall be taken at the end of the shift.

6. Protective clothing and equipment supplied shall be used while working in this area.

7. Containers of pesticides shall not be used for keeping foodstuffs.

8. Spillage of the chemical 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 be report for the prescribed medical tests regularly to protect their own health.

[Schedule XXIV] [Inserted by No. 3, dated 27.7.1987.]Operations involving high Noise levels.

1. Application. This schedule shall apply to all operations in any manufacturing process having high noise level.

2. Definitions. For the purpose of this schedule

(a)"Noise" means any unwanted sound.(b)"High noise level" means any noise level measured on the A-weighted scale is 90 db or above.(c)"Decibel" means one-tenth of "Bel" which is the fundamental division of a logarithmic scale used to express the ratio of two specified or implied quantities, the number of "Gels" 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 20X10-5 newtons per square or 0.0002 dynes per square centimeter which is the schedule 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 en-gingering control of administrative measures shall be taken to ensure, so far as is reasonable practicable that no worker is exposed to sound level exceeding the maximum permissible exposure levels specified in Tables 1 and 2.

Table 1

Total time of exposure (Continuous or a number ofshort term exposures) per day in hours.	Sounds pressure level in dBA
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
34	107
12	107
12	115

Notes. 1. No exposure in excess of 115 dBA is to be permitted.

2. For any period of exposure falling in between any figure and the next higher or lower figure as indicated in column 1, the permissible sound pressure level is to be determined by extrapolation on a proportionate basis.

Table 2Permissible Exposure levels of Impulsive or Impact Noise.

Peak Sound pressure level in in dB	Permitted number of impulses or impacts per day
140	100
135	315
130	1000
125	3160
120	10000

Notes. 1. No exposure in excess of 140 dB peak sound pressure level is permitted.

2. For any peak sound pressure level falling in between any figure and the next higher or lower figure as indicated in column 1, the permitted number of impulses of impact 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 1 would apply. In other cases, the noise is to be considered as impulsive or impact noise and the criteria given in table 2 would apply.(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 fraction C1/T1 + C2/T2 + Cn/Tn exceeds unity, Where the C1, C2 etc. indicate the total time of actual exposure at a specified noise level and T1, T2, etc. denote the time of exposure permissible at that level. Noise exposure of less than 90 dBA may be ignored in the above calculation.(4)Where it is not possible to reduce the noise exposure to the levels specified in sub-rule (1) By reasonably practicable engineering control or administrative measures, the noise exposure shall be reduced to the greatest extent feasible by such control measures, the each worker so exposed shall be provided with suitable ear protectors so as to reduce the exposure to noise to the levels specified in sub-rule (1).(5)Where the ear protectors provided in accordance with sub-paragraph (2) and worn by a worker cannot still attenuate the noise reaching near his ear, as determined by subtracting the attenuation value in dBA of the ear protectors concerned from the measured sound pressure level to a level permissible under Table 1 or Table 2 as the case may be, the noise exposure period shall be suitably reduced to correspond to the permissible noise exposures specified in sub-paragraph (1).(6)(a)In all cases where the prevailing sound levels exceed the permissible levels specified in sub-paragraph (1) there shall be ad-ministered an effective hearing conservation programme which shall include among other hearing conservation measures, pre-employment and periodical auditory surveys conducted on workers exposed to noise exceeding the permissible levels, and rehabilitation of such workers either by reducing the exposure to the noise level or by transferring them to place where noise levels are relatively less or by any other suitable means.(b)Every worker employed in areas where the noise exceeds the maximum permissible exposure levels specified in sub-rule (1) shall be subjected to an auditory examination by a certifying surgeon within 14 days of his first employment there after, shall re-examined at least once, every 12 months. Such initial the periodical examinations shall include tests which the certifying surgeon may consider appropriate, and shall include determination of auditory thresholds for pure tones on 125, 250, 500, 1000, 2000, 4000 and 8000 cycles per second.

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:(b)"breathing apparatus" means a helmet or face piece with necessary connections by means of which the person

using it in a poisonous, asphyxiating or irritant atmosphere breathes unpolluted air; or any other approved apparatus:(c)"churn" means the vessel in which alkali cellulose pulp is treated with carbon disulphide:(d)"dumping" means transfer of cellulose exonthate from a dry churn to a dissolver;(e)"efficient exhaust draught" means localised ventilation by mechanical means for the removal of any gas or vapour, so as to prevent it from escaping into the air of any place in which work is carried on. No draught shall be deemed to be efficient if it fails to control effectively any gas or vapour generated at the point where such gas or fume originates.(f)"fume process" means any process in which carbon disulphide or hydrogen sulphide is produced, used or given off:(g)"life belt" means a belt made of leather or other suitable material which can be securely fastened round the body with a suitable length of rope attached to it. each of which is sufficiently strong to sustain the weight of a man:(h)"protective equipment" means apron, gogglsles, face shields, footwear, gloves and overalls made of suitable materials.

2. Ventilation. (1) In all workrooms where a fume process is carried on, adequate ventilation by natural or mechanical means shall be provided so as to control, in association with other control measures, the Concentration of Carbon-disulphide and hydrogen sulphide in the air of every work environment within the permissible limits.

(2)Notwithstanding the requirements in sub-paragraph (1) an efficient exhaust draught shall be provided and maintained to control the concentration of Carbon-di-sulphide and hydrogen sulphide in the air at the following locations: (a)dumping hoppers of dry churns,(b)Spinning machines,(c)hydro-extractors for yarn cakes,(d)after treatment processes and(e)trick rollers and cutters used in staple fibre spinning,(f)Spin baths.(3)In so far as the spinning machines and trio rollers and cutters used in staple fibre spinning are concerned, they shall be, for the purpose of ensuring the effectiveness of the exhaust draught to be provided as required in sub-paragraph (1), enclosed as fully as practicable and provided with suitable shutters in sections to enable the required operations to be carried out without giving rise to undue quantities of Carbon-di-sulphide and hydrogen sulphide escaping to the work environment.(4)No dry churn shall be opened after completion of reaction without initially exhausting the residual vapours of Carbon-di- sulphide by operation of suitable and efficient arrangement for exhausting the vapours which shall be continued to be operated as long as the churn is kept opened.(5)Whenever any ventilation apparatus normally required for the purpose of meeting the requirements in sub-paragraphs (2) (3) and (4) is ineffective, fails, or is stopped for any purpose whatsoever, all persons shall be required to leave the work areas where the equipment or process specified in the above said sub- paragraphs are in used as soon as possible and in any case not later than 15 minutes after such as 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.

3. Waste from Spinning machines. Waste yarn from the spinning machines shall be dis posited in suitable containers provided with close fitting covers. Such waste shall be disposed off as quickly as possible after decontamination.

4. Lining of Dry Churns. The inside surface of all dry churns shall be coated with a non-sticky paint so that cellulose anthate will not stick to the surface of the churn. Such coating shall be maintained in good condition.

5. Air monitoring. (1) To ensure the effectiveness of the control measures, monitoring of carbon-disulphide and hydrogen sulphide in air shall be carried out once at least in every shift and the record of the results so obtained shall be entered in a register specially maintained for the purposes.

(2)For the purpose of the requirement in sub-paragraph (1), instaneous gas detector tubes shall not be used. Samples shall be collected over a duration of not less than 10 minutes and analysed by an approved method. The locations where such monitoring is to be done shall be as directed by the Inspector.(3)if the Concentrations of either carbon disulphide or hydrogen sulphide exceeds the permissible limits for such vapour or gas as laid down in Rule 123A, suitable steps shall be taken for controlling the concentration in air of such contaminants. A report of such occurrences shall sent to the Chief Inspector forthwith.

6. Prohibition relating to employment of young person. No young person shall be employed or permitted to work in any fume process or in any room in which may such process in carried on.

7. 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.

8. Protective equipment. -(1) The occupier shall provide and maintain, in good condition protective equipment as specified in the Table for use of persons employed in the processes referred to therein.

Table

Process		Protective equipment
1.	Dumping	overalls, face shields gloves and footwear all made ofsuitable material.
2.	Spinning	Suitable aprons gloves and footwear.

3.	Process involving or likely to involve contact with viscosesolution	Suitable gloves and footwear.
4.	Handling of Sulphur	Suitable chemical goggles.
5.	Any other process involving contact with hazardous chemicals	Protective equipment as may be directed by the Chief Inspectorby an order in writing.

(2)A suitable room, rooms or lockers shall be provided exclusively for the storage of all the protective equipment supplied to workers and no such equipment shall be stored at any place other than the room, rooms or lockers so provided.

9. Breathing apparatus. (1) There shall be provided in every factory where fume process is carried on sufficient supply of.

(a)breathing apparatus;(b)Oxygen and 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 location 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 responsible person.(iii)A record of the maintenance of the condition of the breathing apparatus and other appliances referred to in sub-clause (1) shall be entered in a register provided for that purpose which shall be readily available for inspection by an Inspector.(3)Sufficient number of workers shall be trained and periodically retrained in the use of breathing apparatus and administering artificial respiration so that at least 2 such trained persons would be available during all the working hours in each room in which fume process is carried on.(4)Breathing apparatus shall be kept properly labelled in clean, dry, light, proof cabinets and if liable to be affected by fumes, shall be protected by placing them in suitable containers.(5)No person shall be employed to perform any work, specified in sub-paragraph (1) for which breathing apparatus is necessary to be provided under that sub-paragraph unless he has been fully instructed in the proper use of the equipment.(6)No breathing apparatus provided in pursuance of sub-paragraph (1) which has been worn by a person shall be worn by another person unless it has been thoroughly cleaned and disinfected since last being worn and the person has been duly instructed in the proper use of that equipment.

10. Electric fittings. All electric fitting in any room in which carbon-disulphide is produced, used or given off or is likely to be given off into work environment, other than electric conductors shall either be enclosed in metal conducts spinning room shall be flame proof construction and all 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 at prominent

locations in plant prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked light or spark into such rooms:

Provided that fire, naked light or other means of producing a naked light or spark may be carried on in such room only when required for the purposes of the process itself under the direction of a responsible person.

12. Washing and bathing facilities. (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 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 materials shall be provided.(5)Provided that such towels shall be supplied individually for each worker if so ordered by the Inspector.(6)Sufficient supply of soap and nail brushes shall be provided.

13. Rest Room. (1) A rest room shall be provided for the workers engaged on doffing operations of filament yarn spinning process.

(2)Such rest room shall be provided with fresh air supply and adequate seating arrangement.

14. Cautionary notice and instructions. (1) The following cautionary notice shall be prominently displayed in each fume process room.

"Cautionary Notice

1. Carbon disulphide (C52) 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 workers employed in any room in which a fume process is carried on regarding the health hazard connected with their work and the preventive measures and methods to protect themselves. Such instructions shall be given on his first employment and repeated periodically.(3)Simple and special instructions shall be framed to ensure that effective measures will be carried out in case of emergency involving escape of carbon 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 who is in the opinion of the Chief Inspector capable by virtue of his qualification, training and experience, conducting a thorough medical check up against the hazards involved and to diagnose and treat the industrial disease which are likely to creep in such type of process and,(b)Provide to the said medical officer all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examination and appropriate test carried out by the said medical officer shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the inspector.

16. Medical examination by the certifying surgeon. (1) Every worker employed in the fume process shall be examined by a certifying surgeon within 15 days of his first employment such examination shall include test for examination of exposure co- efficient (iodine azide test for urine), and cholesterol, as well as electrocardiogram (ECG) and Central Nervous System (CNS) test. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the certifying surgeon.

(2)Every worker employed in the fume process shall be re- examined by a certifying surgeon at least once in every twelve calendar months. Such examination shall, wherever the Certifying Surgeon considers appropriate, include all the test specified in sub-paragraph (1).(3)The Certifying Surgeon after examining a worker shall issue a certificate of Fitness in Form No.30. 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 test, shall also be entered by the Certifying Surgeon in a health register in Form No.19.(4)The certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the certifying surgeon is of the opinion that a worker is no longer fit for employment in the fume process on the ground that continuance therein would involve special danger to the health of the worker he shall make a record of his findings in the said certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said 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 Certifying Surgeon, after further examination again certifies him fit for employment in such process.

17. Exemptions. If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reasons, all or any of the provisions of this schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

XXVI

Highly Flammable Liquids and Flammable Compressed Gases

1. Application. These rules will be applicable to all factories were highly flammable liquids or flammable compressed gases are manufactured, stored, handled or used.

2. Definition. For the purpose of this schedule

(a)"highly flammable liquid" means any liquid including its solution, emulsion or suspension which when tested in a manner specified by sections 14 and 15 of the Petroleum Act, 1934, (30 of 1934) gives off flammable vapours at a temperature less than 32 degrees centigrade:(b)"flammable compressed gas" means flammable compressed gas as defined in section 2 of the Static and Mobile pressure vessels (Unfired) Rules 1981 framed under the 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 vessels or tank which contained a highly flammable liquid for 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 High Flammable Liquids. Wherever it is reasonably practicable, highly flammable liquids shall be conveyed within factory in totally enclosed systems consisting of pipe lines, pump 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 off or dilute such spills or leakage as to prevent formation of flammable mixture with air.

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

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

7. Prohibition of smoking. No person shall smoke in any place where highly flammable liquid or flammable compressed gas is present in circumstances that smoking would give rise to a risk of fire. The occupier shall take all practicable measure to ensure compliance with this requirement including display of a notice indicating prohibition of smoking at every places 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 Rule 63.

9. Exemptions. If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reasons, all or any of the provisions of this schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any as he may specify therein.

[Schedule XXVII] [Added by No.4, dated 8.1.1991 [25-6-1992]]Operations in Foundries.

1. Application. Provisions of this schedule shall apply to all parts of factories where any of the following operations or processes are carried on:

(a)the production of iron castings or, as the case may be, steel castings by castings in molds made of sand, loam, molding composition or other mixture of materials, or by shell molding, or by centrifugal casting and any process incidental to such production:(b)the production of non-ferrous castings by casting metal in molds made of sand, loam, metal, molding composition or other material or mixture of materials or by shell moldings, die- casting (including pressure die-casting), centrifugal casting of continuous casting and any process incidental to such production; and(c)the melting and casting of non-ferrous metal for the production of ingots. billets, slabs or other similar products, and the stripping thereof, but shall not apply with respect to: (a)any process with respect to the smelting and manufacture of lead and the Electric Accumulators:(b)any process for the purposes of a printing works: or(c)any smelting process in which metal is obtained by a reducing operation or any process incidental to such operation; or(d)the production of steel in the form of ingots: or(e)any process in the course of the manufacture of solder or any process incidental to such manufacture: or(f)The melting and casting of lead or and 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 respirators" means a respirator of a type approved by the Chief Inspector:(b)"cupola or furnace" includes a receiver associated therewith:(c)"dressing or fettling operations" includes stripping and other removal of adherent sand, cores runners, risers flash and other surplus metal from a casting and the production of reasonably clean and smooth surface, but does not include (a) the removal of metal from a casting when performed, incidentally in connection with the machining or assembling of castings after they have been dressed or fettled, or (b) any operation which is 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 molds made of sand, loam, molding composition or other mixture of materials, or by shall molding or by centrifugal casting in metal molds lined with sand, or die casting including pressure die casting, together with any part of the factory in which any of the following processes are carried on as incidental processes in connection with and in the course of such production namely the preparation and mixing of materials used in foundry process the preparation of molds and cores, knock out operations and dressing or fettling operation:(e)"knock-out operations" means all methods of removing casting from molds and the following operations, when done in connection therewith namely, stripping, coring out and the removal of runners and risers:(f)"pouring aisle" means an aisle leading from a main gangway or directly from a cupola or furnace to where metal is poured into molds.

3. Prohibition of use of certain materials as parting materials. (1) A material shall not be used as a parting material if it is a material containing compounds of silicon calculated as silica to the extent more than 5 percent by weight of the dry material;

Provided that this prohibition shall not prevent the following being used as a parting material if the material does not contain an admixture of any other silica (a)Zirconium silicate (Zircon)(b)Calcined china clay(c)Calcined aluminous fire clay(d)Sillimanite(e)Calcined or fuses alumina (o Olivine (g) Natural sand(2)Dust or other matter deposited from a fettling or blasting processes 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 requirement shall be observed:

(a)molding boxes, loam plates, ladles, patterns; pattern plates, frames, boards, box weights, and other heavy articles shall be so arranged and placed as to enable work to be carried on without unnecessary risk:(b)suitable and conveniently accessible racks, bins or other receptacles shall be provided and used for the storage of other gear and tools:(c)where there is bulk storage of sand, fuel, metal scrap or other materials or residues, suitable bins, bunkers, or other receptacles shall be provided for the purpose of such storage.

5. Construction of floors. (1) Floors of indoor work-places in which the processes are carried on, other than parts which are of sand, shall have an even surface of hard material.

(2)No part of the floor or any such indoor work place 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 work place in which the processes are carried on and of everything affixed to those wall shall be effectively cleaned by a suitable method to a height of not less than 4.2 meter from the floor at least once in every period of fourteen months. A record of the carrying out of every such effective cleaning in pursuance of this paragraph including the date (which shall be not less than five months or more than nine months after the last immediately preceding washing, cleaning or other treatment).

(2)Effective cleaning by a suitable method shall be carried out at least once every working day of all accessible parts of the floor of every indoor workplace in which the processes are carried one other than parts which are of sand: and the parts which are of sand shall be kept in good order.

7. Manual operations involving molten metal. (1) There shall be provided and properly maintained for all persons employed on manual operations involving molten metal with which they are liable to be splashed, a working space for that operation

(a)which is adequate for the safe performance of the work, and(b)which, so far as reasonably practicable, is kept free from obstruction.(2)Any operation involving the carrying by hand of a container holding molten metal shall be performed on a floor all parts of which where any person walks while engaged in the operation shall be on the same level:Provided that, where necessary to enable the operation to be performed without undue risk, nothing in this paragraph shall prevent the occasional or exceptional use of a working space on a different level from the floor, being a space provided with a safe means of access from the floor for any person while engaged in the operation.

8. Gangways and pouring aisles. (1) In every work-room to which this paragraph applies constructed, reconstructed or converted for use as such after the making of this schedule and, so far as reasonably practicable, in every other work-room to which this paragraph applies, sufficient and clearly defined main/gangways shall be provided and properly maintained which:

(a)shall have as even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage:(b)shall be kept, so far as reasonably practicable free from obstruction:(c)if not used for carrying molten metal shall be at least 920 millimetres in width.(d)If used for carrying molten metal shall be: (i)where truck ladles are used exclusively at least 600 millimetres wider than the overall width or 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 m. in width.(2)In workroom to which this paragraph applies constructed, reconstructed or converted for use as such after the making of this schedule, sufficient and clearly, defined pouring aisles shall be provided and properly, maintained which (a)shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage:(b)shall be kept, so far as reasonably practicable, free from obstruction:(c)if molten metal is carried in hand ladles or bull ladles by not more than two men per ladle, shall be at least 460 millimetres wide, but where any molds alongside the aisle are more than 510 millimetres above the floor of the aisle. The aisle shall not be less than 600 millimetres wide:(d)if molten metal is carried in hand ladles or bull ladles by more than two men per ladle, shall be at least 760 millimetres no correction regd. wide:(e)if molten metal is carried in crane, trolley or truck ladles, shall be of the width adequate for the safe performance of the work.(3)Requirements of sub-paragraph (1) and (2) shall not apply to any workroom or part of a workman if, by reason of the nature of the work done therein, the floor of that work-room or, as the case may be, that part of a work room has to be of sand.(4)In this paragraph "workroom to which this paragraph applies" means a part of a ferrous or non-ferrous foundry in which molten metal is transported or used, and a workroom to which this paragraph applies shall be deemed for the purposes of this paragraph to have been constructed, reconstructed or converted for use as such after the making of this schedule if the construction, reconstruction or conversion thereof was begun after the making of this schedule.

9. Work near cupolas and furnaces. No person shall carry out any work within a distance of 4 metres from a vertical lines passing through the delivery end of any spout of a cupola or furnace, being a spout used for delivering molten metal, or within a distance of 2.4 metres from a vertical line passing through the nearest part of any ladle which is in position at the end of such a spout, except, in either case, where it is necessary for the proper use of maintenance of a cupola or furnace that work should be carried out within that distance of that work is being carried out at such a time and under such conditions that there is no danger to the person carrying it out from molten metal which is being obtained from the cupola or furnace or is in a ladle in position at the end of the spout.

10. Dust and fumes. (1) Open coal, coke or wood fires shall not be used for heating or drying ladles inside a workroom unless adequate measures are taken to prevent, so far as practicable, fumes or other impurities from entering into or remaining in the atmosphere of the workroom.

(2)No open coal, coke or wood fires shall be used for drying molds except in circumstances in which the use of such fires is unavoidable.(3)Mold stoves. core stoves and annealing furnace 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, affective and suitably local exhaust ventilation and a high standard of general ventilation are provided: or(b)in an area of the foundry in which, so far as reasonably practicable, effective and suitable local exhaust ventilation is provided, or where compliance with this requirement is not reasonably practicable, a high standard of general ventilation is provided.(5)All dressing or fettling operations shall be carried out: (a)in a separate room or in a separate part of the foundry suitably partitioned off: or(b)in an area of the foundry set a 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 plant used for the purpose of extorting, suppressing or controlling dust or fumes shall be properly maintained.

(2)All ventilating plant used for the purpose of extracting, sup-pressing or controlling dust or fumes shall be examined and inspected once every week by a responsible person. It shall be thoroughly examined and tested by a competent person at least once in every period of twelve months, and particulars of the results of every such examination and test shall be entered in an approved register which shall be available for inspection by an Inspector. Any defect found on any such examination and test shall be immediately report 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) has been worn by a person shall be worn by another person if it has not since been thoroughly cleaned and disinfected.(3)Persons who for any of their

time (a)work at a spout of or attend to, a cupola or furnace in such circumstances that material therefore may come into contact with the body, being material at such a temperature that its contact with the body would cause a burn: or(b)are engaged in, or in assisting with, the pouring of molten metal: or(c)carry by hand or move by manual power any ladle or mold containing molten metal; or(d)are engaged in knocking-out operations involving material at such a temperature that its contact with the body would cause a burn:shall be provided with suitable footwear and gaiters which worn by them prevent, so far as reasonably practicable, risk of burns to this feet and ankles.(4)Where appropriate, suitable screens shall be provided for protection against flying materials (including splashes of molten metal and sparks and chips thrown off in the course of any process).(5)The occupier shall provide and maintain suitable accommodation for the storage and make adequate arrangements for cleaning and maintaining of the protective equipment supplied in pursuance of this paragraph.(6)Every person shall make full and proper use of the equipment provided for his protection in pursuance of sub-paragraph (1) and (4) and shall without delay report to the occupier, manager or other appropriate person any defect in, or less of, the same.

13. Washing and bathing facilities. (1) There shall be provided and maintained in clean state and good repair for the use of all workers employed in the foundry

(a)a wash place under cover with either(i)a trough with imperious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimetre for every 10 such persons employed at any one time and having a constant supply of clean water from taps-or jets above the trough at intervals of not more than 60 Centimetre : or(ii)at least one tap or stand pipe for every 10 such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 1.2 metres a part; and(b)not less than one half of the total number of washing places provided under clause (a) shall be in the form of bath rooms.(c)a sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.(2)The facilities provided for the purposes of sub-paragraph (1) shall be placed in charge of a responsible person or persons and maintained in a clean and orderly condition.

14. Disposal of dross and 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 molding (including waste burnt sand) as soon as reasonably practicable after the castings have been knocked out.

16. Material and equipment left out of doors. All material and equipment left out of doors (including material) and equipment so left only temporarily or occasionally) shall be so arranged and placed as to avoid unnecessary risk. There shall be safe means of access to all such material and equipment and, so far as reasonably practicable, such access shall be by roadways or pathways which shall be properly maintained. Such roadways or pathways shall have a firm and even surface and shall, so far as reasonably practicable be kept free from obstruction.

17. Medical facilities and records of examinations and tests. (1) The occupier of every factory to which the schedule applies, shall

(a)employ a qualified medical practitioner who is in the opinion of the Chief Inspector capable by virtue of his qualifications, training and experience, conducting a thorough medical check-up against the hazards involved and to diagnose and treat the industrial diseases which are likely to creep in such type of process, and(b)provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a).(2)The record of medical examinations and appropriate tests carried out by the said medical practitioner shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector.

18. Medical Examination by Certifying Surgeon. (1) Every worker employed in a foundry shall be examined by a Certifying Surgeon within 15 days of his first employment, such medical examination shall include pulmonary function tests and chest X-ray. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2)Every worker employed in the said processes shall be re-examined by a Certifying Surgeon at-least once in every twelve months. Such examination shall, wherever the Certifying Surgeon considers appropriate, include all the test as specified in sub- paragraph (1) except chest X-ray which will be once in 3 years.(3)The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 30. The record of examination and re-examinations carried out shall be entered in the Certificate and the Certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in health register in Form 19.(4)The Certificate of Fitness and the health register shall be kept readily available for inspection by the Inspector.(5)If at any time the Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance therein would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents should also include

the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he is fully in capacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.(6)No person who has been found unfit to work as said in sub-paragraph (5) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.

19. Exemption. If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or in frequency of the processes or for any other reason, all or any of the provisions at this schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which be 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][Added by G.S.R. No. 49, dated 8.8.2002 [13.8.2002].]Fire Works Manufactories and Match Factories

1. Application. The provisions of this Schedule shall apply to all manufactories and processes incidental thereto carried on in any Fire Works Manufactory or a match works and shall be in addition to and not in derogation of any provisions of the Factories Act, 1948 and the Rajasthan Factories Rules, 1951 or of any other Act or Rules that are applicable to fire works manufactories and match factories.

2. Definitions. (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 fire works.

Saltpetre,Pyrotechnic Aluminium (sic Aluminium) Powder,Barium Nitrate,Charcoal,Potassium Chloride,Red Phosphorus,Gum,Dextrine,Strontium Nitrate,Magnesium Powder,Copper Coated Wires,Steel filings or iron filings,G.I. Wire.Gun Powder (Black Powder).(b)"Match works" means any establishment 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 in this behalf.

3. Building. (a) The building of any fire works manufactory or match factory shall conform to the standards prescribed under the Indian Explosives Act, 1884 (Central Act IV of 1884), and the height of such buildings shall at no time be less than 3 meters.

(b)No building inside a fire works manufactory shall have a first floor at any time.(c)In Match works, 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 in the first floor and one of he staircases shall be of masonry construction or non-inflammable materials.(d)All doors 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 meters in width or less than 2 meters in height.(f)The floors of all work rooms including mixing sheds shall be completely covered by a rubber sheet having a smooth surface and having a thickness of at least 3 mm. If the floor cannot be covered by a single rubber sheet, more than one rubber sheet maybe used, so that each sheet is over lapped by the other at least 150 mm, and(g)Mixing sheds shall be 30.5 meters away from all other sheds and be separated by baffle walls opposite each exit of the mixing shed.

4. House-Keeping. (a) Every part of ways, work, machinery and plant shall be maintained in a clean and tidy condition.

(b)Any spillage of materials shall be cleaned without delay.(c)Close platforms, passages and gang ways shall be kept free of temporary obstructions.

5. Electrical Equipment. (a) If at any time use of electricity is allowed in the factory, all leads, etc., shall be in conduits with flame-proof junctions.

(b)Electrical supply shall never be through a lamp even with a non-conducting handle.

6. Protective clothing. (a) Under no circumstances clothes made of artificial fibre like terelene, 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 aluminium and magnesium powders are used "anti-stat" footwear to combat static electricity shall be supplied.(e)All protective equipments shall be maintained in an efficient condition and also shall be maintained in a clean and hygienic condition.

7. Match Factories. In match factories. (i) the residue of the head composition shall not in any way be mixed with the residue of the friction composition.

(ii)The rooms comprising the two mixing departments namely, (a) head composition and (b) friction composition shall be entirely separate from each other and the drains from these two departments shall be kept entirely separate.(iii)Rubbish containing the residues of the head composition and friction composition shall be kept and burnt separately.(iv)Department in which completed matches (matches with heads 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:Provided that the chief Inspector may, subject to such conditions, as he may deem necessary, exempt any factory in existence on the first January, 2001 from the provisions of this clause.(v)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.(vi)Store room for matches shall be entirely separated by fire-proof walls from the building used for manufacture.(vii)The racks in the dipped splints room shall have sides top and the rear part provided with non-inflammable materials.(viii)The process of packing shall be done in an area away from the place of manufacture to the satisfaction of the Inspector; and(ix)No child shall be employed or permitted to work directly connected with the manufacturing process up to final production of match sticks.

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. 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 persons, iron knives, keys, etc.

9. Employment of women and children. Women workers and young 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.

10. 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 mails 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 and 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 filing up chemicals in the inner tubs of crackers, only aluminium or plastic rings shall be used and not galvanised 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 amrocess factories.(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.(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.(h)Workers should not carry with themselves iron knives and iron keys, etc.

12. First-aid boxes. (a) The materials required under rule 67 shall be kept in the First-Aid Box. 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.(c)Persons who are in charge of First-Aid Boxes shall be those who possess the certificate granted by St. John's Ambulance Association for rendering first-aid.

13. Exemption. If the Chief Inspector 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 processes or for other reason the

application of all or any of the provisions of the schedule to the factory or process, or for 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 process or 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 may at any time in his discretion revoke such order without assigning any reason .

101. [Notification of accidents and dangerous occurrences. (1) When any accident which results in the death of any person or which results in such bodily injury to any person as is likely to cause his death, or any dangerous occurrence specified in the schedule takes place in a factory, the Manager of the factory shall forthwith send a notice thereof by telephone, special messenger or telegram to the Inspector and the Chief Inspector.

(2)When any accident or any dangerous occurrence specified in the schedule, which results in the death of any person or which results in such bodily injury to any person as is likely to cause his death, takes place in a factory, notice as mentioned in sub- rule (1) shall be sent also to :(a)the District Magistrate or Sub-Divisional Officer,(b)the officer-in-charge of the nearest police station, and(c)the relatives of the injured or deceased person.(3)Any notice given as required under sub rules (1) & (2) shall be confirmed by the Manager of the factory to the authorities mentioned in these sub-rules within 12 hours of the accident or the dangerous occurrence by sending them a written report in Form No.20 in the case of an accident or dangerous occurrence causing death or bodily injury to any person and in Form 20 A in the case of a dangerous occurrence which has not resulted in any bodily injury to any person.(4)When any accident or dangerous occurrence specified in the schedule takes place in a factory and it causes such bodily injury to any person as prevents the person injured from working for a period of 48 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 in Form 20 within 24 hours after the expiry of 48 hours from the time of the accident or the dangerous occurrence:Provided that if in the case of an accident or dangerous occurrence, death occurs of any person injured by such accident or dangerous occurrence after the notices and reports referred to in the foregoing sub rules have been sent, the Manager of the factory shall forthwith send a notice thereof, by telephone, special messenger or telegram to the authorities and persons mentioned in sub-rules (1) and (2) and also have this information confirmed in writing within 12 hours of the death:Provided further that, if the period of disability from working for 48 hours or more referred to in sub-rule (4) does not occur immediately following the accident or the dangerous occurrence, but later, or occurs in more than one spell, the report referred to shall be sent to the Inspector in the prescribed Form 20 within 24 hours immediately following the hour when the actual total period of disability from working resulting from the accident or the dangerous occurrence becomes 48 hours.

Schedule 40

The following are the classes of dangerous occurrences, whether or not they are attended by personal injury or disablement :(a)Bursting of a plant used for containing or supplying steam under pressure greater than atmospheric pressure.(b)Collapse or failure of a crane, derrick, which, hoist or other appliances used in raising or lowering persons or goods, or any part thereof, or the overturning of a crane.(c)Explosion, fire bursting out. leakage or escape of any molten metal, or hot liquor or gas causing bodily injury to any person or damage to any room or place in which persons are employed or fire in rooms of cotton pressing factories when a cotton opener is in use.(d)Explosion of a receiver or container used for the storage at a pressure greater than, atmospheric pressure of any gas or gases (including air) or any liquid or solid resulting from the compression of gas.(e)Collapse or subsidence of any floor, gallery, roof, bridge, tunnel. chimney, wall: building or any other structure.][Substituted by No. 1-A, dated 14.7.1979 [2-8-1979].](f)[Leakage incidence of any toxic gas or other hazardous substances.] [Inserted by No. 3, dated 27.7.1987.]Rules prescribed under sub-section (1) of section 89

102. Notice of poisoning or disease. A notice in Form No. 19 should be sent [with in a month] [Substituted by No. 4, dated 8.1.1991 [25-6-92]] both to the Chief Inspector and to the Certifying Surgeon, by the Manager of a Factory in which there occurs a case of lead phosphorus, mercury. manganese, arsenic, carbon bi sulphide or benzene poisoning; or poisoning by nitrous fumes, or by halogens or halogen derivatives of hydrocarbons of the aliphatic series, or of chrome ulceration, anthrax, silicosis. toxic anaemia, toxic, jaundice, primary opitheliomatous cancer of the skin or pathological manifestations due to radium or other radio-active substances of X-rays. [All types of acne and dermatitis , Byssinosis, Asbestosis, all type of occupational or contract dermatitis, Noise induced hearing loss, Beryllium poisoning, Carbon monoxide poisoning. Coal miners pneumoconiosis, phosgene poisoning, occupational cancer. Isocyanates poisoning Toxic nephritis.]

[Added by No. 6, dated 11.9.1996 [18.9.96].]

Chapter X
Supplemental

Rules prescribed under sub-section (1) of Section 107

103. Procedure in appeals. (1) An appeal presented under section 107 shall lie to the Chief Inspector, or in cases where the order appealed against is an order passed by that officer, to the State Government or to such authority, as the State Government may appoint in this behalf and shall be in the form of a memorandum setting forth concisely the grounds of objection to the order and bearing court-fees stamp in accordance with Article 11 of Schedule 2 to the Court-fees Act. 1870 and shall be accompanied by a copy of the order appealed against.

(2)Appointment of assessors. On receipt of the memorandum of appeal the appellate authority shall, if it thinks fit or if the appellant, has requested that the appeal should be heard with the aid of assessors call upon the body declared under sub-rule (3), to be representative of the industry concerned, to appoint an assessor within a period of 14 days. If an assessor is nominated by such body, the appellate authority shall appoint a second assessor itself. It shall then fix a date for the hearing of the appeal and shall give due notice of such date to the appellant and to the Inspector whose order is appealed against, and shall call upon the two assessors to appear upon such date to assist in the hearing of the appeal.(3)The appellant shall state in the memorandum presented under sub-rule (1), whether he is a member of one or more of the following bodies. The body empowered to appoint the assessor shall, (a)if the appellant is a member of one of such bodies, be that body,(b)if he is a member of two such bodies, be the body which appellant desires. should appoint such assessor, and(c)if the appellant is not a member of any of the aforesaid bodies or if he does not state in the memorandum which of such bodies, he desires should appoint the assessor, be the body which the appellate authority considers as the best fitted to represent the industry concerned.(1)Rajasthan Chamber of Commerce and Industry, Jaipur;(2)Rajasthan Small Scale Industries Association, Jaipur;(3)Rajasthan Textile Mill Owners Association. Jaipur;(4)Rajasthan Udyog Vyapar Mandal, Jaipur;(5)Rajasthan Industrial and Mining Association, Bhilwara:(6)The Employers Association of Rajasthan, Jaipur;(7)Other Association of Employers in Industry concerned, if any.(4)Remuneration of assessors. An assessor, appointed in accordance with the provisions of sub-rules (2) and (3), shall receive for the hearing of the appeal, a feet be fixed by the appellate authority, subject to a maximum of fifty rupees per diem. He shall also receive the actual travelling expenses. The fees and travelling expense shall be paid to the assessors by Government. but if assessors have been appointed at the request of the appellant, and the appeal has been decided wholly or partly against him, the appellate authority may direct that the fees and travelling expense of the assessors shall be paid in whole or in part by the appellant.Rules prescribed under sub-section (1) of section 108

104. Display of notices. The abstract of the Act and of the Rules required to be displayed in every factory, shall be in Form No. 22.

Rule prescribed under Section 110

105. Returns. The Manager of every Factory shall furnish to the Inspector of the Factories or other officer appointed by the State Government in this behalf, the following returns, namely:

(i)Annual return. On or before the 31st January, of each year, in Form No. 23 in duplicate.(ii)Half-yearly return. The Manager of every factory shall furnish to the Chief Inspector on or before the 15th July of each year, in Form No. 24 in duplicate.Rule prescribed under Section 106

106. Service of notices. The dispatch by post under registered cover of any notice or order shall be deemed sufficient service on the occupier, owner or manager of a Factory of such notice or order.

Rules 107 to 110 prescribed under section 112

107. Information required by the Inspector. The occupier, owner or Manager of a Factory shall furnish any information that an Inspector may require for the purpose of satisfying himself whether any provision of the Act has been complied with or whether any order of an Inspector has been duly carried out. Any demand by an Inspector for any such information, if made, during the course of an inspection, shall be complied with forth with, if the information is available in the factory, or, if made in writing, shall be complied with within seven days of receipt thereof.

107A. [Permissible levels of certain chemical substance in work environment. Without prejudice to the requirements in any other provisions in the Act or the Rules, the requirements specified in this schedule shall apply to all factories.

[Inserted by No. 3, dated 27.7.1987.]

Schedule 41

1. Definitions. For the purpose of this schedule

(a)"Mg/M3" means milligrammes of a substance per cubic meter of air:(b)"mppom" means a million particals of a substance per cubic meter of air;(c)"ppm" means parts of vapour or gas per million parts air by volume at 25°C and 760 mm. of mercury pressure:(d)"Time weighted average concentration" means the average concentration of a substance in the air at any work location in a factory computed from evaluation of adequate number of air samples taken at that location spread over the entire shift on any day, after giving weightage to the duration for which each such sample is

collected and the concentration prevailing at the time of taking the sample.Time weighted average concentration C1T1 + C2T2 + ..CnTn/T1 + T2.....TnWhere CI represents the concentration of the substance for duration Ti (in hours);C2 represents the concentration of the substance for duration T2 (in hours): andCn represents the concentration of the substance for duration Tn (in hours);(e)"work location" means a location in a factory at which a worker works or may be required to work at any time during any shift on any day.

2. Limits of concentrations of substances at work locations. (1) The time weighted average concentration of any substance listed in Table 1 or 2 of the schedule, at any work location in a factory during any shift on any day shall not exceed the limit of the permissible time weighted average concentration specified in respect of that substance:

Provided that in the case of a substance mentioned in Table 1 in respect of which a limit in terms of short term maximum concentration is indicated, the concentration of such a substance may exceed the permissible limit of the time weighted average concentration for the substance for short periods not exceeding 15 minutes at a time, subject to the condition that (a)Such periods during which the concentration exceeds the prescribed time weighted average concentration are restricted to not more than 4 per shift:(b)the time interval between any two such periods of higher exposure shall not be less than 60 minutes: and(c)at no time the concentration of the substance in the air shall exceed the limit of short term maximum concentration.(2)In the case of any substance given in table 3, the concentration of the substance at any work location in a factory at any time during any day shall not exceed the limit of exposure for that substance specified in the table.(3)In the cases where the word "skin" has been indicated against certain substance mentioned in Tables 1 and 3. appropriate measures shall be taken to prevent absorption through cutaneous routes particularly skin, mucous membranes and eyes as the limits specified in these Tables are for conditions where the exposure is only through respiratory track.(4)(a)In case, the air at any work location contains a mixture of such substances mentioned in Table 1, 2 or 3 which have similar toxic properties, the time weighted concentration of each of these substances during the shift should be such, that when these time weighted concentration divided by the respective permissible time weighted average concentration specified in the above mentioned tables, and the fractions obtained are added together, the total shall not exceed unity.C1/L1 + C2/L2 + Cn/Ln should not exceed unitywhen C1 C2 ... Cn are the time weighted concentration of toxic sub-stance 1, 2, .. and n respectively, determined after measurement at work location, and L1, L2 .. Ln are the permissible time weighted average concentration of the toxic substance 1, 2, ... and n respectively.(b)In case the air at any work location contains a mixture of substances, mentioned in Table 1, 2 or 3 and these do not have similar toxic properties, that the time weighted concentration of each of these substances shall not exceed the permissible time weighted average concentration specified in the above mentioned tables, for that particular substance.(c)The requirement in clauses (a) and (b) shall be in addition to the requirements in paragraphs 2 (1) and 2 (2).

3. Sampling and evaluation procedures. (1) Notwithstanding provisions in any other paragraphs, the sampling and evaluation procedures to be adopted for checking compliance with the provision in the schedule shall be as per standard procedure in vogue from time to time.

(2)Notwithstanding the provisions in paragraph 5, the following conditions regarding the sampling and evaluation procedures relevant to checking compliance with the provisions in this schedule are specified: (a)For determination of the number of particles, per cubic meter in item 1 (a) (i) (1) in Table 2, samples are to be collected by standard or midget impinger and the counts made by light-field technique.(b)The percentage of quartz in the 3 formulae given in item 1 (a) (i) of Table 2 is to be determined from air borne samples.(c)For determination of number of fibres as specified in item 2 (a) of Table 2, the membrane filter method at 430 magnification (4 mm. objective) phase contrast illumination should be used.(d)Both for determination of .concentration and percentage of quartz for use of the formula given in item 1 (a) (1) (2) of Table 2, the fraction passing through a size-selector with the following characteristics should only be considered:

Aerodynamic diameter(Unit density Sphere)	Percentage allowed by size-selector
2.0	90
2.5	75
3.5	50
5.00	25
10.0	0

4. Power to require assessment of concentration of substances. (1) An Inspector may, by an order in writing, direct the occupier or manager of a factory to get before any specified date, the assessment of the time weighted average concentration at any work location of any of the substances mentioned in Table 1, 2 or 3 carried out.

(2)The results of such assessment as well as the method followed for air sampling and analysis for such assessment shall be sent to the inspector within 3 days from the date of completion of such assess merit and also a record of the same kept readily available for inspection by an Inspector.

5. Exemption. If in respect of any factory or a part of factory, the Chief Inspector is satisfied that, by virtue of the pattern of working time of the workers at different work location or an account of other circumstances, no worker is exposed, in the air at the work locations, to a substance or substances specified in Table 1, 2 or 3 to such an extent as is likely to be injurious to his health, he (the Chief Inspector) may by an order in writing, exempt the factory or a part of the factory from the requirements in paragraph 2, subject to such conditions, if any as he may specify therein.

Table 1

Substance	Permissible limits of exposure			
Time weighted average concentration	Short term maximum concentrated			
1	2		3	
	PPm	mg/m3	PPm	mg/m3
Acetic acid	10	25	15	37
Acrolein	0.1	0.25	0.03	0.8
Aldrin-skin	-	0.25	-	0.75
Aniline (Co Pisomers) Skin	0.1	0.5	-	-
Ammonia	25	18	35	27
Aniline Skin	2	10	5	20
Aresenic & Compound (as As)	-	0.2	-	-
Benzene	10	30	-	-
Bromine	0.1	0.7	0.3	2
2 Butanone Methyl ethyl(Ketone-MEK)	200	590	300	885
n-Butyle acetate	150	710	200	950
Sec/ter./Butyl acetate	200	950	250	1190
Cadmium-dust and salts (as Cd)	-	0.05	-	0.2
Calcium Oxide	-	2	-	-
Carbaryl (Sovin)	-	5	-	10
Carnofuran (Furadan)	-	0.1	-	-
Carbon disulphide skin	2	60	30	90
Carbon monoxide	50	55	400	440
Carbon tetrachloride skin	10	65	20	130
Carbonyl chloride (Phosgene)	0.1	0.4	-	-
Chlordane skin	-	0.5	-	2
Chlorobenzene (monom chloro benzene)	75	350	-	-
Chlorine	1	3	3	9
Bis-chloromethyl ether Chromic acid	-	-	-	-
And chromates (as Cr.)	-	0.05	-	-
Chromium, Sol. Chromic Chromous Salts (as Cr.)	-	0.5	-	-
Copper Fume	-	0.2	-	-
Cotton Dust, raw	-	0.2	-	0.6
Cresol, all isomers skin	5	22	-	-
Cyanides, as CN skin	-	5	-	-

Cyanogen	10	20	-	-
DDT (Dichloro diphenyl-trichloroethane)	-	1	-	3
Dameton skin	0.01	0.1	0.03	0.3
Diazion skin	-	0.1	-	0.3
Dibutyl Phthalate	-	5	-	10
Dichlorves (DDVP) skin	0.01	1	0.03	3
Dieldrin skin	-	0.25	-	0.75
Dinitro Benzene (all isomers) skin	0.15	1	0.5	3
Dinitro toluene skin	-	1.5	0.6	5
Diphenyl	0.2	1.5	-	4
Endosulfan (Thiodan) skin	-	0.1	-	0.3
Endrin-skin	-	0.1	-	0.3
Ethyl acetate	400	1000	-	-
Ethyl alcohol	1000	1900	-	-
Ethyl amine	10	18	-	-
Fluorides (as F)	-	2.5	-	-
Fluorine	1	2	2	4
Hydrogen Cyanide Skin	10	11	15	16
Hydrogen Sulphide	10	15	15	27
Iron Oxide Fume (Fe2O3 as Fe)	-	5	-	10
Isoamyl acetate	100	525	125	655
Isoamyl alcohol	100	360	125	450
Isobutyl alcohol	50	150	75	225
Lead, inorg., fumes and dusts (as Pb)	-	0.15	-	0.45
Lindane -skin	-	0.5	-	1.5
Melathion skin	-	10	-	-
Manganese fume (as Mn)	-	1	-	3
Mercury (as Hg)	-	0.05	-	0.15
Mercury (alkyl compounds) skin (as Hg)	0.001	0.01	0.003	0.03
Methyl alcohol (methanel) skin	200	260	250	310
Methyl cellosolve skin (2 methoxy ethanol)	25	80	35	120
Methyl isobutyl Ketone skin	100	410	125	510
Naphthalene	10	50	15	75
Nickel carbonyl (as Ni)	0.05	0.35	-	-
Nitiric acid	2	5	4	10
Nitric oxide	25	30	35	45
Nitrobenzene skin	1	5	2	10

Oil Mist mineral	-	5	-	10
Parathion skin	-	0.1	-	0.3
Phenel skin	5	19	10	38
Phorate (thimet) skin	-	0.05	-	0.2
Phosgene (carbonyl chloride)	0.1	0.4	-	-
Phosphine	0.3	0.4	1	1
Phosphours Pentachloride	-	1	-	3
Phosphours Trichloride	0.5	3	-	-
Picric acid skin	-	0.1	-	0.3
Phosphorus (yellow)	-	0.1	-	0.3
Pyridine	5	15	10	30
Silane (silicon tetrahydride)	0.5	0.7	1	1.5
Styrene, monower (Phenyl ethylene)	100	420	125	525
Sulphure dioxide	5	13	-	-
Sulfuric acid	-	1	-	-
Toluene (toluol- skin	100	375	150	560
O-Taludine	5	22	10	44
Trichloroethylene	100	535	150	800
Vinyl Chloride	5	10	-	-
Welding fumes (NOC)	-	5	-	-
Xylene (o-m-p-isomers) skin	100	435	150	655

Table 2

Substance1	Permissible time weighted average concentration2	
1. Silica		
(a) Crystalline		
(i) Quarts		
(1) In terms of dust count	1060%Quatrz+10	mppem
(2) In terms of repairable dust	10%respirablequartz+2	mg/m3
(3) In terms of total dust	30%quartz+3	mg/m3
(ii) Cristobalite	Half the limits given againstquartz.	
(iii) Tridymite	Half the limits given againstquartz.	
(iv) Silica fused.	Same limit as for quartz.	
(v) Tripoli	Same limit as in formula in items2 given against quartz.	
(b) Amorphous	705 mppem.	
2. Silicate having less than 1% free silica by weight		
(a) Asbestos fibres longer than 5 microne.		

(i) Amosite	0.5% fibre/cubic centimeter.
(ii) Chrysolite	2% fibre/cubic centimeter.
(iii) Crocidolite	0.2% fibre/cubic centimeter.
(iv) Other form	2% fibre/cubic centimeter.
(b) Mica	705 mppem
(c) Mineral wool fibre	10 mg/m3
(d) Porlite	1060 mppem
(e) Portland cement	1060 mppem
(f) Soap stone	705 mppem
(g) Talc (nonobosti form)	705 mppem
(h) Talc (fibrous)	Same limits as for asbestos
(I) Tromolite	Same limits as for asbestos
3. Coal dust	
(1) For airborne dust having less than 5% silicondioxide by weight	2 mg/m3
(2) For airborne dust having over 5% silicondioxide.	Same limit as prescribed byformula in item (2) against quartz.

Table 3

Substance	Permissible limit of exposure	
ppm	mg/m3	
Acetic an hydride	5	20
O Dichlorbenzene	50	300
Formaldehyde	2	3
Hydrogen chloride	5	7
Manganese & Compounds (as Mn)	-	5
Nitrogen dioxide	5	9
Nitroglycerin skin	0.2	2
Potassium Hydroxide	-	2
Sodium hydroxide	-	2
2, 4, 6, Trinitrotoluene (TNT)	-	0.5]

108. Muster Roll. (1) The Manager of every Factory shall maintain a muster roll of all the workers employed in the factory in Form No. 28 showing, (a) the name of such 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 adult and child workers in the registers of workers in Form Nos. 13 & 15 respectively, or the particulars

required under sub-rule (1) are noted in any other registers and such registers 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.

109. Register of accidents and dangerous occurrences. The Manager of every Factory shall maintain a Register of all accidents, and dangerous occurrences which occur in the Factory in Form No. 26 showing the:

(a)Name of injured person (if any).(b)Date of accident or dangerous occurrence.(c)Date of report on Form No. 18 to Inspector.(d)Nature of accident or dangerous occurrence.(e)Date of return of injured person to work.(f)Number of days of absence from work of injured person.

110. [Maintenance of inspection book. For this purpose, the factories are divided under the categories :

(a)Factories employing 51 and more than 51 workers.(b)Factories employing upto 50 workers.For Category A(i)The manager of every factory shall maintain a binded inspection book in form No. 34 of the size (23 cms X 20 ems) and he shall produce it when so required by the Inspector/Sr. Inspector/Dy. Chief Inspector of factories as the case may be.(ii)The Inspection Book shall contain at least 180 pages, every third page thereof shall be consecutively numbered and the other two numbered page each between two consecutively numbered page shall have a vertical perforated straight line on the margin side at a margin of 25 mm.(iii)In case of the Inspection book containing remarks passed by the Inspector/Sr. Inspectors/Dy. Chief Inspector of Factories is lost, to manager of the factories shall forthwith report in writing the loss of the inspection book to the Inspector In-charge of the area and immediately maintain a new inspection book.(iv)Whenever an inspection is made by the Inspector/Sr. Inspector/Dy. Chief Inspector of factories, he will prepare an inspection note at the site in triplicate, one copy of that inspection report will be handed over to the occupier/manager or any other responsible person present at the time of inspection and the other copy will be sent to the Chief Inspector of factories, while carrying out an inspection, he shall specially mention(i)the name of the occupier/manager or responsible person present at the time of inspection in whose presence the inspection of the factories was carried out:(ii)the number of workers found working and horse power installed at the time of inspection;(iii)the date and time at which the inspection was carried out:(iv)name of the factory with address;(v)manufacturing processes:(vi)name of the partners/occupiers/manager;(vii)Inspector's remarks.For Category B(1)The Inspector/Sr. Inspector/Dy. Chief Inspector of Factories shall maintain a binded Inspection Book in form No. 34 of the size 23 cms x 20 cms.(2)The Inspection Book will be issued by the Chief Inspector of Factories and each shall contain at least 80 pages, every third page thereof shall be consecutively numbered and the other two number pages each between two consecutively numbered pages shall have a vertical perforated straight line on the margin side at a margin of 25 mm.(3)In case of Inspection Book is lost, the factory Inspector/Sr. Inspector/Dy. Chief Inspector shall forth with report in writing the loss of Inspection Book to the Chief Inspector of Factories and shall immediately maintain a new Inspection Book.(4)Whenever as inspection is made by the Inspector/Sr. Inspector/Dy. Chief Inspector of factories he will prepare an inspection note at the site

in triplicate, one copy of that inspection report will be handed over to the Occupier/Manager or any other responsible person present at the time of inspection and the other copy will be sent to the Chief Inspector of Factories. While carrying out an inspection, he shall specifically mention: (i)the name of the occupier/manager or responsible person present at the time of inspection in whose presence the inspection of the factory was carried out;(ii)the number of workers found working and horse power installed at the time of inspection;(iii)the date and time at which the inspection was carried out;(iv)name of the factory with address;(v)manufacturing process:(vi)Name of the partners/occupier/manager:(vii)Inspector's remarks.In case of factories covered under category (a) Inspection Note Book is not made available to Inspector/Sr. Inspector/Dy. Chief Inspector of factories at the time of inspection from the management of the factory, he will make inspection note in prescribed Inspection Book issued by the Chief Inspector of Factories.Note: In case of supervisory inspection, the inspection in prescribed perform as not binding.][Substituted by No. 2 dated 27.2.1985 [1.4.85].]

111. Notices of closure. The occupier or the Manager of every factory shall report to the Inspector, any intended closure of the factory or any section or department thereof, immediately it is decided to do so, intimating the reason for the closure, the number of workers on the register on the date of report. the number of workers likely to be affected by the closure and the probable period of the closure. An intimation should also be sent to the Inspector, as soon as the factory or the section or the department of the factory, as the case may be, starts working again.

112. Repeal and savings. All corresponding rules in force in Abu, Ajmer or Sunel area are hereby superseded.

Form No. 1.(Prescribed under Rule 3)Application for permission to construct, extend or take into use any building as a factory.

1. Applicant's Name.....

Applicant's Calling.....Applicant's address.....

2. Full name and postal address of factory

3. Situation of the factory

Province.....District.....Town and Village.....Nearest Police Station.....Nearest Railway Station or Steamer Ghat.....

4. Particulars of plant to be installed.....

Date.....Signature of applicantNote: This application shall be accompanied by the following documents:(a)A flow chart of the manufacturing process supplemented by a brief description of the process in its various stages;(b)Plans, in duplicate, drawn to scale showing(i)the site of the factory and immediate surroundings including adjacent buildings and other structures, roads, drains etc., and(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.(c)Such other particulars, as the Chief Inspector may require.Form No. 2.(Prescribed under rule 4)Application for Registration and grant or renewal of Licenses for the year and notice of occupation specified in Section 6 and 7 (to be submitted in triplicate)

1. Full name of the Factory with Factory Licence No. if already registered from/before.....

2. (a) Full postal address and situation of the factory

(b)Full address to which communications relating to the factory should be sent.....

3. Nature of manufacturing process/processes:

(a)Carried on in the factory during the last twelve months (in the case of factories already in existence)....(b)To be carried on in the factory during the next twelve months (in case of all factories).....

4. Names and values of principal products manufactured during the last 12 months.

5. (i) Maximum number of workers proposed to be employed on any day during the year.....

(ii)Maximum number of workers employed on any one day during the last 12 months.....(iii)Number of workers to be ordinarily employed in the factory.....

6. (i) Nature and total amount of power (H.P.) installed or proposed to be installed.....

(ii)Maximum amount of power (H.P.) proposed to be used....

7. Full name [with father's name] [Inserted by No. 2, dated 17.2.1985 [1.4.85]] and residential address of the person who shall be the manager of the factory for the purpose of the Act.....

8. Full name [with father's name] [Inserted by No. 2, dated 27.2.1985 [1.4.85]] and residential address of the occupier:

(i)The proprietor of the factory in case of private firms/proprietary concern.....(ii)Directors in case of public limited liability/firm(iii)Where a Managing Agent has been appointed, the name of the Managing Agents and the Directors thereof.....(iv)Share holders in case of a private company where no managing agents have been appointed.....(v)The Chief Administrative Head or any other officer nominated by the State Government, as occupier in case of a Government factory or factories run by the local authority or by any statute corporation or body.....

9. Full name and address of the owner of the premises or building (including the precincts thereof) referred to in section 93

10. In the case of a factory constructed or extended after the date of the commencement of the rules

(a)Reference number and date on approval of the plans for site whether for old or new building and for construction or extension of factory by the State Government/Chief Inspector....(b)Reference number and date of approval of the arrangements, if any, made for the disposal of trade waste and effluents and name of the authority granting such approval.....

11. Amount of fee Rs. (Rupees)

(i)Paid in.....Treasury on.(vide Challan No.....enclosed)(ii)Transmitted by Crossed Cheque No.....date.....on the Bank drawn in favour of the Chief Inspector of Factories.Signature of occupier.....[(full name of occupier)] [Inserted by No. 2, dated 27.2.1985 [1.4.85]]Date.....Signature of Manager.....[(full name of Manager)] [Inserted by No. 2, dated 27.2.1985 [1.4.85.]]Date.....Notes. 1. This form should be completed in ink in block letters or types.

2. If power is not used at the time of filling up this form, but is introduced later, the fact should be communicated to the Chief Inspector immediately.

3. If any of the persons named against item 8 is minor, the fact should be clearly stated.

4. In the case of a factory, where under the proviso to sub section (1) and (2) of section 100, a person has been nominated as the occupier, information required in item 8 should be supplied only in respect of that person.

5. In the case of a factory whereas Managing Agent or Agents have been appointed as occupier under the Indian Companies Act, 1913 (VII of 1913) information required in item 8 should be supplied only in respect of the person or persons.

Form No. 3-A[Prescribed under rule 12-A]Notice of change of Manager

1. Name of factory with current licence number. .....
.....

2. Postal address..... ....
.....

3. Name of outgoing Manager .....
.....

4. Name of new Manager with postal address of the residence and Telephone number, if installed ....
.....

5. Date of appointment of the new Manager ....
.....

Signature of new ManagerSignature of occupierForm No. 4[Prescribed under rule 51]Registration and Licence to work a FactoryRegistration No..... Fee Rs.....Serial No.....Licence is hereby granted to.....valid only for the premises described below for use as a factory employing not more than persons on any one day during the year and using motive power not exceeding....H.P. subject to the provisions of the Factories Act, 1948, and the Rules made thereunder.This licence shall remain in force till the 31st day of December, 19.....Chief Inspector of FactoriesThe.....19.....Description of the licensed premisesThe licensed premises shown on Plan No.....dated are.....situated in.....and consist of.....

Date of renewal Date of expiry Signature of licensing authority

Form No. 5[Prescribed under rule 14]Certificate of Fitness

1. SerialNo.....Date.....	SerialNo.....Date.....
2. Name.....	I certify that I have personally examined(name).....
3. Father's Name.....	.....
4. Sex.....	son/daughter of.....
5. Residence.....	.....
6. Date of birth, if available/and certifiedage.....	
7. Physical fitness.....	Residing at .....who is desirous ofbeing employed in a factory, and that his/her age as nearly ascan be ascertained from my examination date of birthis.....years, and that he/she is fit for employment infactory, as an adult/child.
8. Descriptive marks.....	
9. Reason for -(1)Refusal of certificate .....(2)certificate being revoked.....ThumbimpressionCertifying Surgeon	His/Her descriptivemarks are- .....ThumbimpressionCertifying Surgeon

Note. Exact details of cause of physical disability should be clearly stated.Form No. 6[Prescribed under rule 22]Humidity RegisterDepartment.....Hygrometer.....Distinctive mark or number.....Position in department.....

	Reading of Hygrometers					
Date, Year, Month, Day	Between 7 and 9 a.m.	Between 11 a.m. And 2p.m. (but not in the rest period)	Between 4 and 5-30p.m.	If no humidity,insert none	Remarks	
	Dry bulb	WetBulb	Dry bulb	WetBulb	Dry bulb	WetBulb
1st 2nd 3rd to31st						

(Signed).....Certified that the above entries are correct.(Signed).....Form No. 7[Prescribed under rule 16]Record of Lime-washing, Painting, etc.

Part of Factory e.g., Name of room	Parts lime washed painted, varnished or oiled,e.g. walls, ceilings, wood work,	Treatment, whether lime washed, painted,varnished	Date on which lime-washing, painting varnishingor oiling was carried out (according to the English calendar)	Remarks

	etc.	or oiled			
Date	Month	Year			
1	2	3	4	5	6 7

Signature of MangerForm No. 8[Prescribed under rule 54]Register of workers attending to Machinery

S. No.	Name and Father's name of worker	Designation, department and nature of work	Date when tight clothes provided	Signature or thumb impression of the worker

Form No. 9 [Substituted by No. 1, dated 24.3.1979.][Prescribed under rule 58]Report of Examination of Pressure Vessel or Plant

1. Name of Occupier (or Factory).....

2. Situation and address of Factory.....

3. Name, description and distinctive number of pressure vessel or plant.....

4. Name and address of manufacturer and reference to their test certificate of competent person.....

5. Nature of process in which it is used.....

6. Particulars of vessel or plant:

(a)Date of construction.....(b)Date on which pressure vessel or plant was first taken into use.....(c)Maximum permissible working pressure recommended by the manufacturer.....(d)Design pressure if known (the history should be briefly given and the examiner should state whether he has seen the last previous report).....

7. Date of last hydrostatic test (if any) and pressure applied.....

8. Is the pressure vessel or plant in open, or otherwise exposed to weather or to damp ?.....

9. What parts (if any) were inaccessible ? .....

10. What examination and tests were made; (specify pressure if hydrostatic test was carried out).....

11. Condition of pressure vessel or plant (State any defects materially affecting the maximum permissible working pressure or the safe working pressure of the pressure vessel or plant).

(working of the vessel),External.....Internal.....

12. Are the required fittings and appliances provided in accordance with the rules ?

13. Are all fittings and appliances properly maintained and in good conditions. Have the pressure settings been checked and corrected ?

14. Repairs (if any) required, and period within which they should be executed and any other condition which the person making the examination thinks it necessary to specify for securing safe working

15. Maximum permissible working pressure, calculated from dimensions and from the thickness and other data ascertained by the present examination, due allowance being made for conditions of working if unusual or exceptionally service (State minimum thickness of walls measured during the examination).

16. Where repairs affecting the maximum working pressure are required, state the working pressure:

(a)Before the expiration of the period specified on (14)(b)After the expiration of the such period if the required repairs have not been completed.....(c)After the completion of the required repairs

17. Other observations.

I certify that on.....the pressure vessel or plant described above was thoroughly cleaned (and so far as its construction permits) made accessible for thorough examination and for such tests as were necessary for thorough examination and that on the said date, I thoroughly examined this pressure vessel or plant, including its fittings, and that the above is a true report of my examination.Signature.....Qualification.....Address.....Date.....If employed by a Company or Association, give name and address]Form No. 9-A[Prescribed under rule 58-A]Register of water-sealed gasholder

Serial Number of the gasholder	Makers name	Date of manufacture	Capacity	Number of lifts	Pressure thrown when full of gas
1	2	3	4	5	6

Date of inspection	By whom inspected	Method of inspection	Date of painting	Nature of repairs and the name of the personscarrying on repairs	Remarks
7	8	9	10	11	12

Form No. 9-B[Prescribed under rule 58-A]Report of examination of water-sealed gasholder

1. Name of occupier of Factory.

2. Situation and address of factory.

3. Name, description, distinguishing number or letter and type of gasholder.

4. Name and address of the manufacturer.

5. (a) No. of lifts.

(b)Maximum capacity in sub-meters (cub. ft.)(c)Pressure thrown by holder when full of gas.

6. Particulars of gas to be stored in the holder.

7. Particulars as to the condition of

(a)Crown.(b)Side sheeting, including grips and cups.(c)Guiding Mechanism (Roller carriaged, rollers, pins, guide rails or rops).(d)Tank.(e)Other structure, if any (Columns, framing and bracing).

8. Particulars as to the position of the lifts at the time of examination.

9. Particulars as to whether the tank and lifts were found sufficiently level for safe working and is not, as to the steps taken to remedy the defect.

10. Date of examination and by whom it was carried out.

11. Condition of vessel.

(1)External.(2)Internal.

12. Are all fittings, appliances properly maintained and in a good condition, repairs, if any required and period within which they should be executed and any other condition which the person making the examination thinks it necessary for safe working.

13. Other observations.

I certify that on.....the gasholder 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.....Qualification.....Address.....Dated.....If employed by a Company or Association, give name and Address.Form No. 10[Prescribed under rule 81]Register of Compensatory Holidays

Serial No.	Number in the Register of workers	Name	Group or Relay No.	No. and date of exempting order	Year
1	2	3	4	5	6

January to March	April to June	July to September	October to December
7	8	9	10

Date of compensatory holidays given in		Last rest days carried to the next year		Remarks		
January to March		April to June		July to September	October to December	
11		12		13	14	15 16

Form No. 11[Prescribed under rule 82]Overtime muster roll for exempted workersMonth ending.....19...

No. in Register	Name	Department	Dates on which over time has been worked	Extent of overtime on each occasion

Total over time worked or production in case ofpiece workers	Normal hours	Normal rate of pay	Overtime rate of pay	Normal earnings

Cash equivalent of advantage occurring throughthe concessional sale of food grains and other articles	Over time earnings	Total earnings	Date on which overtime payments made

Form No. 12[Prescribed under rule 84)Notice of Periods of Work for Adult WorkersName of Factory.....Place.....District.....

Period of work	Men	Women	Description of groups	Remarks
Groups	Total number of men employed	Total number of women employed	Group letter	Nature of work
A	B	C	D	E F G H I J
Relay	1	2	3	1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1
On working days :-FromToFromTo				
On partial workingdays:-FromToFromTo				

Date on which this notice first exhibited..............19........(Signed)...............ManagerForm No. 13[Prescribed under rule 85]Register of Adult Workers

Serial No.	Name	Father's name	Residential Address of the worker	Nature of work
1	2	3	4	5

Letter of Group as in Form	Number of relay, if working in shifts	No. and date of certificate if an adolescent	Remarks	
No. of certificate and date	Token Number giving reference to the certificate			
6	7	8	9	10

Form No. 14[Prescribed under Rule 90]Notice of periods of work for Child WorkersName of Factory.........Place.............District.................

Period of work	Children		
Total number of children employed			
Groups	A	B C	
Relays	1	2 3 4 5 6	
FromTo			

Period of work	Children	Description of Group	Remarks
	Group Letter	Nature of work	
FromTo			

Date on which this notice is first exhibited ..... 19....(Signed)..............ManagerForm No. 15[Prescribed under Rule 91]Register of Child Workers

Serial No.	Name	Father's Name	Residential Address of the worker	Date of first employment
1	2	3	4	5

Remarks

No of certificate and its date	Token No. giving reference to certificate	Letter of Group as in Form...	No. of relay, if working in shifts	
6	7	8	9	10

Form No. 16(Prescribed under Rule 92)Register of leave with Wages

		Adult/Child
Serial No.....	Name of the Factory.....	Name.....
Department.....		Father's Name.....
Serial No. in the Register of Adult, Child workers.....		Date of discharge.....
Date of entry into Service.....		Date of amount of payment made in lieu of leavedue.....

Calendar year of Service	Wages period from....to.....	Wages earned during the wage period	No. of days worked during thecalendar year	
No. of days of work performed	No. of days of lay off	No. of days of maternity leave	No. of days of leave enjoyed	
1	2	3	4	5 6 7

Total of Cols. 4 to 7	Leave to credit	Total of Cols. 9 and 10	Whether leave in accordance withscheme under Section 79(8) was refused	Leave enjoyed from.... to.....	Number of days of leave enjoyed	
Balance of leave from preceding year	Leave earned during the yearmentioned in col. 1					
8	9	10	11	12	13	14

Balance of leave to credit	Normal rate of wages	Cash equivalent of advantage accruing throughconcessional sale of food grains and other articles	Rate of wages for the leave period (Total ofCols. 15 to 16)	Wages for leave period paid on	Remarks
15	16	17	18	19	20

Form No. 17[Prescribed under Rule 931Register of Leave Book

		Adult/Child
Serial No.....	Name of the	Name.....

Factory.....

Department.....

Father's Name.....

Serial No. in the Register of Adult, Child workers.....

Date of discharge.....

Date of entry into Service.....

Date of amount of payment made in lieu of leavedue.....

Calendar year of Service	Wages period from....to.....	Wages earned during the wage period	No. of days worked during thecalendar year			
No. of days of work performed	No. of days of lay off	No. of days of maternity leave	No. of days of leave enjoyed			
1	2	3	4	5	6	7

Total of Cols. 4 to 7	Leave to credit	Total of Cols. 9 and 10	Whether leave in accordance withscheme under Section 79(8) was refused	Leave enjoyed from.... to.....	Number of days of leave enjoyed	
Balance of leave from preceding year	Leave earned during the yearmentioned in col. 1					
8	9	10	11	12	13	14

Balance of leave to credit	Normal rate of wages	Cash equivalent of advantage accruing throughconcessional sale of food grains and other articles	Rate of wages for the leave period (Total ofCols. 15 to 16)	Wages for leave period paid on	Remarks
15	16	17	18	19	20

Form No. 18[Prescribed under Rule 98)I hereby require that in the event of my death before resuming work, the balance of my pay due for the period of Leave with wages not availed of be paid to.....who is my.....and resides at.....Signature of the workerForm No. 19[Prescribed under Rule 14]Health Register(In respect of persons employed in occupations declared to be dangerous operations under section 87).

Name of Certifying Surgeon

(a)Mr.....

From.....To.....

(b)Mr.....

From.....To.....

(c)Mr.....

From.....To.....

Serial No.	Works No.	Name of worker	Sex	Age (last birthday)
1	2	3	4	5

Date of employment on present work	Date of leaving or transfer to other work	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by product handled
6	7	8	9	10

Date of Medical Examination by Certifying Surgeon

Result of Medical Examination

11

If suspended from work, state period ofsuspension with detailed reasons	Re-certified to resume duty on (with signature ofCertifying Surgeon)	If certificate of unfitness or suspension issuedto worker	Signature, with date of Certifying Surgeon
12	13	14	15

For transfer or discharge should be statedUnfit/Suspended.Form No. 19-A[Prescribed under rule 100]

Serial No.	Dept. Works	Name of worker	Age at last birthday	Day of employment in present work	Date of leaving of transfer (with reasons fordischarge or transfer)
1	2	3	4	5	6

Nature of Job or occupation	Raw materials or by products handled	Date of weekly examination with results(fit/unfit)	Note of symptoms	Signature of registered medical practitioner
7	8	9	10	11

Form No. 20[Notice of Accidents or dangerous occurrence resulting in Death or Bodily injury] [Substituted by No. 1-A. dated 14.7.1979 [2.8.1979].](Prescribed under rule 101)

1. Name of occupier (or factory)/employer

E.S.I. Employer's Code No._____

2. Address of works/premises where [Accident or dangerous occurrence] [Substituted by No.1-A, dated 14.7.1979 [2.8.1979].] took place.

3. Nature of industry

4. Branch or department and exact place where the [accident or dangerous occurrence] [Substituted by No. 1-A. dated 14.7.1979 [2.8.1979].] took place.

E.S.I. Insurance _____

5. Name and address of the injured person

6. (a) Sex

(b)Age (Last birthday)(c)Occupation of the injured person

7. Local E.S.I. office to which the impugned person is attached.

8. Date, shift and hour of [accident or dangerous occurrence] [Substituted by No. 1-A. dated 14.7.1979 [2.8.1979].].

9. (a) Hour at which the injured person started work on the day of [accident or dangerous occurrence]

[Substituted by No. 1-A. dated 14.7.1979 [2.8.1979].](b)Whether wages in full or part are payable to him for the day of the [accident or dangerous occurrence] [Substituted by No. 1-A. dated 14.7.1979 [2.8.1979].].

10. Cause or nature of [accident or dangerous occurrence] [Substituted by No. 1-A. dated 14.7.1979 [2.8.1979].]-

(a)If cause by machinery:(i)Give name of the machine and the part causing the [accident or dangerous occurrence] [Substituted by No. 1-A. dated 14.7.1979 [2.8. 1979].].(ii)State whether it was moved by mechanical power at that time.(b)State exactly what the injured person was doing at that time.(c)In your opinion, was the injured person at the time of [accident or dangerous occurrence] [Substituted by No. 1-A. dated 14.7.1979 [2.8.1979].]-(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.(d)In case reply to (c)(i), (ii) or (iii) is in the affirmative, state whether the act was done for the purpose of and in connection with the employers trade or business.

11. In case the [accident or dangerous occurrence] [Substituted by No.1-A, dated 14.7.1979 [2.8.1979].] happened while travelling in the employer's transport state whether

(i)the injured person was travelling as a passenger to or from his place of work.(ii)the injured person was travelling with the express or implied permission of his employer,(iii)the transport is being operated by or on behalf of the employer or some other person by whom it is provided in pursuance of arrangements made with the employer, and(iv)the vehicle being/not being operated in the ordinary course of public transport service.

12. In case the [accident or dangerous occurrence] [Substituted by No. 1-A, dated 14.7.1979 [2.8.1979].] happened while meeting emergency, state,

(i)its nature,(ii)whether the injured person at the time of [accident or dangerous occurrence] [Substituted by No.1-A. dated 14.7.1979 [2.8.1979].] was employed for the purpose of his employer's trade or business in or about the premises at which the accident took place.

13. Describe briefly how the [accident or dangerous occurrence] [Substituted by No.1-A. dated 14.7.1979 [2.8.1979].] occurred.

14. Name and addresses of witnesses

15. (a) Nature and extent of injury (e.g., fatal, loss of finger, facture of leg, scald or scratch and followed by sepsis).

(b)Location of injury (right leg, left hand or left eye etc.)

16. (a) If the [accident or dangerous occurrence] [Substituted by No.1-A. dated 14.7.1979 [2.8.1979].] is not fatal, state whether the injured person was disable for more than 48 hours.

(b)Date and hour of return to work

17. (a) Physician, dispensary or hospital from whom or in which the injured person received or is receiving treatment.

(b)Name of dispensary/penal doctor elected by the injured person.

18. (i) Has the injured person died

(ii)If so, date of deathI certify that to the best of my knowledge and belief the above particulars are correct in every respect.SignatureName and designation of the Occupier or Manager/Employer.....Date of dispatch of report.....(This space is to be completed by the Inspector of Factories)District..... Date of receipt:[Number of the accident or dangerous occurrence][Substituted by No. 1-A. dated 14.7.1979 [2.8.1979].]Causation:Other particulars (e.g., fatal, leg injury, arm injury etc.)Date of investigationResult of investigationForm No. 20-A[Prescribed under rule 101]Notice of Dangerous Occurrence [which does not result in death or bodily injury] [Inserted by No. 1-A. dated 14.7.1979 [2.8.1979].](Vide clause 2 of Schedule under rule 101)

1. Name and address of the factory.....

2. Name of the occupier.....

3. Name of the Manager.....

4. Nature of industry.....

5. Branch or department and exact place where the dangerous occurrence took place.....

6. Date and hour of occurrence.....

7. Nature of dangerous occurrence (State exactly what happened). .....

8. .....

I certify that to the best of knowledge and belief, the above particulars are correct in every respect.Signature of the Occupier/Manager.....Date of dispatch of report.....Note. To be completed in legible handwriting or preferably typewritten.(This space to be completed by Inspector of Factories)

District..... Date of receipt.....

D.O. No..... Date of investigation

Causation No.....

Result of investigation.....

Form No. 21[Prescribed under rule 102]To be filled in by the Chief Inspector.No. of case.....Remarks.....Notice of Poisoning or Disease(See instructions on reverse)

Factory Particulars	1. Name of Factory.....2. Address ofFactory.....3. Address of office or privateresidence of occupier.-
Person Affected	4. Nature of industry.....5. Name and Works Number ofPatient.....6. Address ofPatient.....7. Sex land age ofPatient.....8. Precise occupation ofPatient.....9. Nature of Poisoning or Diseases fromwhich Patient is suffering.....
General Particulars	10. Has the case been reported to the CertifyingSurgeon.....

Signature ofFactory Manager.....Dated.....(Reverse of Form 21)Notice of Poisoning or DiseaseExtract from the Factories Act, 1948(Section 102)Where any worker in a factory contracts any disease specified in the Schedule, the Manager of the factory shall send notice thereof to such authorities, and in such form and within such time, as may be prescribed.Extracts from the Rajasthan Factories Rules, 1949.(Rule 97)A notice in Form No. 19 should be sent forthwith both to tie Chief Inspector and to the Certifying Surgeon, by the Manager of a factory in which there occurs a case of lead, phosphorous, mercury, manganese, arsenic, carbon bi-sulphide or benzene poisoning; or poisoning by nitrous fumes or by halogens or halogen derivatives of the hydrocarbons of the aliphatic series; or of chrome ulceration, anthrax, silicosis, toxic anemia, toxic jaundice, primary opithelioniatous cancer of the skin, or pathological manifestations due to radium or other radio-active substances or X-Rays.Form No. 22[Prescribed under rule 104]Abstract of The Factories Act, 1948 and The Rajasthan Factories Rules, 1951(To be affixed in a conspicuous and convenient place at or near the main entrance to the Factory)"Factory" means any premises including the precincts thereof(i)whereon ten or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on with the aid or power, or is ordinarily so carried on, or(ii)whereon twenty or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on without the aid of power, or is ordinarily so carried on,but does not include a mine subject to the operation of The Mines Act, 1952 (Central Act XXXV of 1952) or a railway running shed."Worker" means a person employed, directly or through any agency, whether for wages or not, in any manufacturing process, or in cleaning any part of the machinery or premises used for a manufacturing process, or in any other kind of work incidental to, or connected with, the manufacturing process, or the subject of the manufacturing process."Manufacturing process" means any process for making, altering, repairing, ornamenting, finishing, packing, oiling, washing, . cleaning, breaking up, demolishing, or otherwise treating or adapting any article or substance with a view to its use, sale, transport, delivery or disposal, or pumping oil, water or sewage, or generating, transforming or transmitting power, or printing by letter press, lithography, photogravure or other similar work or book-binding, which is carried on by way of trade or for purposes of gain, or incidentally to another business so carried on, or constructing, reconstructing, repairing, refitting, finishing or breaking up ships or vessels.Working Hours, Holidays, Intervals for Rest, Etc.

1. Hours of Work (Adults) Sections 51 and 54. No adult worker shall be required, or allowed, to work in a factory for more than 48 hours in any week and for more than 9 hours in any day.

2. Relaxation of hours of work (Adults), Section 64. The ordinary limits on working hours of adults may be relaxed in certain special cases, e.g., workers engaged on urgent repairs; in preparatory or complementary work which must necessarily be carried on outside the limits laid down for the general working of the factory; in work which is necessarily so intermittent that the intervals during which they do not work while on duty ordinarily amount to more than the intervals for rest; in work which for technical reasons must be carried on continuously throughout the day; in making or supplying articles of prime necessity which must be made or supplied every day; in a manufacturing process which cannot be carried on except during fixed seasons, or at times dependent on the irregular action of natural forces in engine rooms or boiler houses or in attending to power plant or transmission machinery.

Except in the case of urgent repairs, the relaxation shall not exceed the following limits: (i)the total number of hours of work in any day, shall not exceed ten;(ii)the total number of hours of overtime work shall not exceed 50 for any one quarter;(iii)the spread over inclusive of intervals for rest shall not exceed 12 hours in any one day.In the case of any or all adult workers in any factory, the ordinary limits on working hours of adults may be relaxed, for a period or periods not exceeding in the aggregate 3 months in any year, to enable the factory to deal with an exceptional press of work.

3. Payment for overtime. Section 59. Where a worker works in a factory for more than 9 hours in any day or for more than 48 hours in any week the shall, in respect of overtime work, be entitled to wages at the rate of twice his ordinary rate of wages.

4. Exemption of Supervisory Staff. Section 64. Chapter VI of the Act-Working hours of adults-does not apply to persons holding positions of supervision or management or employed in a confidential position in a factory.

5. Weekly Holiday (Adults). Section 52. No adult worker shall be required or allowed to work in a factory on the first day of the week, unless he has, or will have, a holiday for whole day on one of the three days immediately before or after the said day, and the manager of the factory has, before the said day or the substituted day, whichever is earlier, delivered a notice at the office of the Inspector of his intention to require the worker to work on the said day and of the day which is to be substituted, and 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.Where a worker in a factory, as a result of exemption from the ordinary provision relating to weekly, holidays, is deprived of any of the weekly holidays, 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 to the holidays so lost.

6. Intervals for rest (Adults). Sections 55 and 56. The periods of work of adult workers in a factory each day shall be so fixed that no period shall exceed 5 hours before he has had an interval for rest of at least half an hour and that inclusive of his intervals for rest, they shall not spread more than 10 1/2 hours in any day or, with the permission of the Chief Inspector in writing, 12 hours.

7. Prohibition of double employment. Section 60, 71 and 99. No child or, except in certain circumstances an adult worker, shall be required or allowed to work in any factory on any day on which he has already been working in any other factory.

If a child workers in a factory on any day on which he has already been working in another factory, the parent or guardian of the child for the person having custody of or control over him or obtaining any direct benefit from his wages shall be punishable with fine, which may extend to rupees 50 unless it appears to the court that the child so worked without the consent or connivance of such parent, guardian or person.

8. Prohibition of employment of children under 14. Section 67. No child who has not completed his fourteenth year shall be required or allowed to work in any factory.

9. Hours of work (Children). Section 71. No child shall be employed or permitted to work in any factory for more than 4 1/2 hours in any day and between the hours of 7 p.m. and 6 a.m. The periods of work of all children employed in a factory shall be limited to two shifts which shall not overlap or spread over more than 5 hours each and each child shall be employed in only one of the relays.

The provision relating to weekly holiday shall also apply to child workers and no examination from this provision may be granted in respect of any child.

10. Prohibition of employment of women. Section 66. No woman shall in any circumstances be employed in any factory for more than 9 hours in any day or between the hours of 7 p.m. and 6 a.m.

Leave With Wages

11. Leave with wages. Sections 79, 80 and 83 and rule (1) Every worker who has worked for a period of 240 days or more in a factory during a calendar year, shall be allowed during the subsequent calender year leave with wages for a number of days calculated at the rate of

(i)If an adult; one day for every 20 days of work performed by him during the previous calender year ;(ii)if a child; one day or every 15 days of work performed by him during the previous calendar year.(2)For the above purpose, any day of lay off by agreement or contract or as permissible under the standing orders (b) in case of female workers maternity leave for any number of days not exceeding twelve weeks, and (c) the leave earned in the year prior to that in which the leave is enjoyed, shall be deemed to be days on which the worker has worked in a factory for the purpose of computation for the period of 240 days or more, but worker shall not earn leave for these days.(3)The period of leave shall be exclusive of all holidays which may occur during or at either at end of the period of leave.(4)For the leave allowed to him, a worker shall be paid at a rate equal to the daily average of his total full time earnings, exclusive of overtime earnings, and, bonus but inclusive of dearness allowances and the cash equivalent of any advantage occurring by the sale, by the employer, of food grains and other articles at concessional rates for the days on which he worked during the month immediately preceding his leave.(5)A worker whose service commences otherwise, then on the first day of January, shall be entitled to leave with wages at the rate laid down in clause (i) or clause (ii) as the case may be, if he has worked for 2/3 of the total number of the days in the remainder of the calendar year.(6)If a worker entitled to leave with wages is discharged from the factory before he has taken the entire leave to which he is entitled, if having applied for and having not being granted such leave, he quits his employment before he has taken the leave, the occupier of the factory shall pay him the amount payable in respect of the leave not taken and such payment shall be made before the expire of the 2nd working day after the day on which his employment is terminated.(7)The manager shall maintain a leave with wages register in the prescribed Form No. 16 and shall provide each worker with a book called"The Leave Book" in the prescribed Form No. 17. The leave book shall be the property of the worker and the manager or his agent shall not demand except to make entries and shall not keep it for more than a week at a time. If a worker loose his Leave Book, the manager shall provide him with another copy on payment of fifteen naya paise and shall complete it from his record.Health

12. Cleanliness. Section 11. Except in cases specially exempted all inside walls and partitions, all ceilings or tops of rooms and all walls, sides and tops of passages and staircases in a factory shall be kept white washed or colour washed. The white washing or colour-washing shall be carried out at

least once in every period of fourteen months. The floors of every work room shall be cleaned at least once in every week by washing, using disinfectant, where necessary, or some other method.

13. Disposal of Wastes and Effluents. Section 12. Effective arrangements shall be made in every factory for the disposal of wastes and effluents due to the manufacturing process carried on therein.

14. Ventilation and Temperature. Section 13. Effective and suitable provision shall be made in every factory for securing and maintaining in every work room, adequate ventilation by the circulation of fresh air and such a temperature as will secure to workers therein reasonable conditions of comfort and prevent injury to health.

15. Overcrowding. Section 16. Unless exemption has been granted. there shall be in every work room of a factory in existence on 1st November, 1951, at least 350 cubic feet and of a factory built after this date at least 500 cubic feet of space for every worker employed therein and for this purpose no account shall be taken on any space which is more than 14 feet above the level of the floor of the room.

16. Lighting, Section 17. In every part of a factory where workers are working or passing, there d?all be provided and maintained sufficient and suitable lighting, natural or artificial or both.

17. Drinking Water, Section 18. In every factory effective arrangements shall be made to provide and maintain at suitable points, conveniently situated for all workers employed therein, a sufficient supply of wholesome drinking water.

In every factory wherein more than 250 workers are ordinarily employed, the drinking water shall, during the hot weather, be cooled by ice or other effective methods. The cooled drinking water shall be supplied in every canteen, lunch room and rest room and also at conveniently accessible points throughout the factory.

18. Latrines and Urinals. Section 19 and rules. In every factory sufficient latrine and urinal accommodation of the prescribed type (separate enclosed accommodation for male and female workers) shall be provided conveniently situated and accessible to workers at all times while they are at the factory.

Every latrine shall be under cover and so partitioned off as to secure privacy and shall have a proper door and fastenings. Sweepers shall be employed whose primary duty it would be to keep clean latrines, urinals and washing places.

19. Spittoons. Section 20. In every factory, there shall be provided a sufficient number of spittoons of the type prescribed in convenient places and they shall be maintained in a clean and hygienic condition. No person shall spit within the premises of a factory except in the spittoons provided for the purpose. Whoever spits in contravention of this provision, shall be punishable with fine not exceeding five rupees.

Safety

20. Fencing of Machinery. Section 21. In every factory dangerous parts of machines e.g., every moving part of a prime mover and every flywheel connected to a prime mover etc. etc., shall be securely fenced by safeguards of substantial construction which shall be kept in position while the parts of machinery they are fencing, are in motion or in use.

21. Work on or near Machinery in Motion. Section 22. No woman or child shall be allowed in any factory to clean, lubricate or adjust any part of the machinery while that part is in motion or to work between moving parts, or between fixed and moving parts of any machinery which is in motion.

22. Employment of Young Persons on Dangerous Machinery. Section 23. No young persons shall work at any machine declared to be dangerous unless he has been fully instructed as to the dangers arising in connection with the machine and the precautions to be observed and has received sufficient training in work at the machine or is under adequate supervision by a person who has a thorough knowledge and experience of the machine.

23. Casing of new Machinery. Section 26. In all machinery driven by power and installed in any factory after 1st November, 1951, every set screw, bolt or key on any revolving shaft, spindle, wheel or pinion shall be so sunk, encased or otherwise effectively guarded as to prevent danger; all spur worm and other toothed or friction gearing which does not require frequent adjustment while in motion shall be completely encased, unless it is so

situated as to be as safe, it would be if it were completely encased.

Whoever sells or lets on hire or as agent of a seller or hirer, causes or procures to be sold or let on hire, for use in a factory any machinery driven by power which does not comply with these provisions, shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to five hundred rupees or with both.

24. Prohibition of employment of Women and Children near Cotton Openers. Section 27. No woman or child shall be employed in any part of a factory for pressing cotton in which a cotton opener is at work.

25. Excessive Weights. Section 34. No woman or young person shall unaided by another person, lift, carry or move by hand or on head, any material, article, tool or appliance exceeding the following limits:

Adult female	.. 65 lb.
Adolescent male	.. 65 lb.
Adolescent female	.. 45 lb.
Male child	.. 35 lb.
Female child	.. 30 lb.

26. Protection of Eyes, Section 35. Effective screens or suitable goggles shall be provided for the protection of persons employed in or in the vicinity of processes which involve risk of injury to the eyes from particles or fragments thrown off in the course of the process or which involve risk of injury to the eyes by reason of exposure to excessive light.

27. Precautions in case of Fire. Section 38. Every factory shall be provided with adequate means of escape in case of fire for the persons employed therein. The doors affording exit from any room shall, unless they are of the sliding type, be constructed to open outwards. Every window, door or their exit affording a means of escape in case of fire, other than the means of exit in ordinary use, shall be distinctively marked. Effective and clearly audible means of giving warning in case of fire to every person employed in the factory shall be provided. Effective measures shall be taken to ensure that wherein more than twenty workers are ordinarily employed in any place above the ground floor, or where in explosive or highly with the means of escape in case of fire and have been adequately trained in the routine to be followed in such case.

Welfare

28. Washing Facilities. Section 42. In every factory adequate and suitable facilities for washing shall be provided and maintained for the use of the workers therein. Such facilities 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.

If female workers are employed, separate 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.

29. Facilities for Storing and Drying Clothing. Section 43 and Rules. In the case of certain dangerous operations e.g., lead processes, liming and tanning of raw hides and skins etc. suitable places for keeping clothing not worn during working hours and for the drying of wet clothing shall be provided and maintained.

30. Facilities for sitting. Section 44. In every factory suitable arrangements for sitting shall be provided and maintained for all workers obliged to work in a standing position in order that they may take ad-vantage of any opportunities for rest which may occur in the course of their work.

31. First Aid and Ambulance Room. Section 45. There shall in every factory be provided and maintained so as to be readily accessible during all working hours first-aid-boxes or cupboards equipment with prescribed contents. All such boxes and cup-boards shall be kept in the charge of a responsible person who is trained in first-aid-treatment and who shall always to be available during the working hours of the factory.

In every factory wherein more than 500 workers are employed, there shall be provided and maintained an ambulance room of the prescribed size and containing the prescribed equipment. The ambulance room shall be in-charge of a qualified medical practitioner assisted by at least one qualified nurse and such other staff, as may be prescribed.

32. Canteens. Section 46 and Rules. In specified factories wherein more than 250 workers are ordinarily employed, a canteen or canteens shall be provided and maintained by the occupier for the use of the workers. Food, drink and other items served in the canteen shall be sold on a non-profitable basis and prices charged shall be subject to the approval of a Canteen

Managing Committee which shall be appointed by the manager and shall consist of an equal number of persons nominated by the occupier and elected by the workers. The number of elected workers shall be in the proportion of 1 for every 1,000 workers employed in the factory provided that in no case shall there be more than 5 or less than 2 workers on the Committee. The Committee shall be consulted from time to time on to the quality and quantity of food stuffs to be served in the canteen the arrangement of the menus etc. etc.

33. Shelters-Rest Rooms and Lunch Rooms. Section 47. In every factory wherein more than 150 workers are ordinarily employed, adequate and suitable shelters or rest rooms and a suitable lunch room, with provision for drinking water, where workers can eat meal brought by them, shall be provided and maintained for the use of the workers.

34. Creches. Section 48 and Rules. In every factory wherein more than 50 women workers are ordinarily employed, there shall be provided and maintained a suitable room or rooms for the use of children under the age of six years of such women. The creche shall be adequately furnished and equipped and in particular there shall be one suitable cot or a cradle with the necessary bedding for each child, at least one chair or equivalent seating accommodation for the use of the mother while she is feeding or attending to her child and a sufficient supply of suitable toys for elder children.

There shall be in or adjoining the creche a suitable wash room for the washing of the children, and their clothing. An adequate supply of clean clothes, soap and clean towels shall be made available for each child while it is in the creche. At least half a pint of clean pure milk shall be available for each child on every day it is accommodated in the creche and the mother of such a child shall be allowed in the course of her daily work suitable intervals to feed the child. For children above two years of age, shall be provided, in addition,an adequate supply of wholesome refreshment. A suitable fenced and shady open air play ground shall also be provided for the older children.

35. Welfare Officers. Section 49. In every factory wherein 500 or more workers are ordinarily employed, the occupier shall employ in the factory, such number of Welfare Officers, as may be prescribed.

Special Provisions

36. Dangerous Operations. Section 87 and Rules. Employment of women, adolescents and children in prohibited or restricted in certain operations declared to be dangerous, e. g., manufacture of aerated water, electroplating, manufacture and repair of electric accumulators, glass manufacture, grinding or glazing of metals, manufacture and treatment of lead and certain compounds of lead, generating petrol gas from petrol, sand blasting and liming and tanning of raw hides and skins.

37. Notice of Accident. Section 88 and Rules. Where in any factory, an accident occurs which causes death or which causes bodily injury by reason of which the person injured is prevented from working for a period of 48 hours or more immediately following the accident or which, though not attended by personal injury or disablement, is one of the following types:

(i)Bursting of a vessel used for containing steam under pressure greater than atmospheric other than plant which comes within the scope of the Indian Boiler Act.(ii)Collapse or failure of a crane, derrick, winch, hoist or other appliances used in raising or lowering persons or goods, or any part thereof, or the overturning of a crane.(iii)Explosion or fire causing damage to any room or place in which persons are employed, or fire in rooms of cotton pressing factories, where cotton opener is in use.(iv)Explosion of a receiver or container used for the storage at a pressure greater than atmospheric pressure of any gas or gases (including air) or any liquid or solid resulting from the compression of gas.(v)Collapse of subsidence of any floor, gallery roof, bridge, tunnel, chimney wall or building forming part of a factory or within the compound or cartilage of factory;(vi)[Leakage incidence of any toxic gas or other hazardous substances.] [Inserted by No. 3, dated 27.7.1987.]The Manager of the factory shall forthwith send notice thereof to the Chief Inspector. If the accident is fatal or of such a serious nature that it is likely to prove fatal, notice shall also be sent to the District Magistrate or the Sub-Divisional Officer and the Officer-in-charge of the nearest Police Station.Hazardous Substances

38. Notice of Certain Diseases. Section 89 and Rules. Where any worker in a factory contracts any of the following diseases, the Manager of the factory shall send notice thereof forthwith both to the Chief Inspector and the Certifying Surgeon:

Lead, phosphorous, mercury, manganese, arsenic, carbon, bi-sulphide or benzene poisoning; or poisoning by nitrous fumes, or by halogens or halogen derivatives of the hydrocarbons of the aliphatic series; or of chrome ulceration, anthrax, silicosis, toxic anemia, toxic jaundice, primary opitheliomatous cancer of the skin, or pathological manifestations due to radium or other radio-active substances or X-Rays.

39. No Charge for Facilities and Conveniences. Section 114. No fee or charge shall be realised from any worker in respect of any arrangements of facilities to be provided or any equipments or appliances to be supplied by the occupier under the provisions of the Act.

40. Powers of Inspectors. Sections 9 and 82. Inspectors have power to inspect factories any time and may require the production of registers, certificates, etc., prescribed under the Act and the Rules.

Any Inspector may institute proceedings on behalf of any workers to recover any sum required to be paid by an employer under the provisions relating to leave with wages, which the employer has not paid.

41. Obligation of Workers. Sections. 97 and 111. No worker of a factory

(i)Shall wilfully interfere with or misuse any appliance, convenience or other thing provided in a factory for the purposes of securing the health, safety or welfare of the workers therein,(ii)shall wilfully and without any reasonable cause do anything likely to endanger himself or others, and(iii)shall wilfully neglect to make use of any appliance or other thing provided in the factory for the purpose of securing the health or safety of the workers therein.If any worker employed in a factory contravenes any of these provisions or any rule or order made thereunder the shall be punishable with imprisonment for a team which may extend to three months or with fine which may extend to Rs. 100 or with both.If any worker employed in a factory contravenes any provision of the Act or any rules or orders made thereunder imposing any duty or liability on workers, he shall, be punishable with fine which may extend to Rs. 20.

42. Certificates of Fitness. Sections 68, 70 and 98. No child who has completed his fourteenth year or an adolescent shall be required or allowed to work in any factory unless a certificate of fitness granted with reference to him, is in the custody of the manager of the factory and such child or adolescent carries, while he is at work, a token giving a reference to such certificate. Any fee payable for such a certificate shall be paid by the occupier and shall not be recoverable from the young person, his parents or guardian.

An adolescent who has been granted a certificate of fitness to work in a factory as an adult and who while at work in a factory carries a token giving reference to the certificates, shall be deemed to be an adult for all the purposes of the provisions of the Act relating to the working hours of adults and employment of young persons. An adolescent who has not been granted a certificate of fitness to work in a factory as an adult shall, notwithstanding his age, be deemed to be a child for all the purposes of the Act.Whoever knowingly uses or attempts to use, as a certificate of fitness granted to

himself, a certificate granted to another adolescent to work in a factory as an adult or, who having procured such a certificate knowingly allows it to be used, or an attempt to use it to be made, by another person, shall be punishable with imprisonment for a term which may extend to one month or with fine which may extend to Rs. 50 or with both.

43. Registers, Notices and Returns. Sections 61, 63, 72, 74, 79, 80 and 110. A register of adult workers in the prescribed form No. 12 and a register of child workers in the prescribed Form No. 14 shall be maintained by the Manager of every factory.

A notice of periods of work for adults and a notice of periods of work for children in the prescribed Forms Nos. 11 and 13 shall be correctly maintained and displayed in every factory. No adult worker or child shall be required or allowed to work in any factory otherwise than in accordance with their respective notices of periods of work displayed in the factory.The owners, occupiers or managers of factories shall submit the prescribed periodical returns to the Inspector regularly.[Form 23 [Substituted by No.4, dated 8.1.1991 [25-6-1992]]Prescribed under Rule 105 (i)Annual ReturnFor the year ending 31st December, 19

1. Registration number of Factory :

2. Name of Factory :

3. Name of Occupier :

4. Name of the Manager :

5. District :

6. Full postal address of Factory :

7. Nature of Industry :

Number of workers and particulars of employment

8. No. of days worked in the year :

9. No. of man-days worked during the year :

(a)Men :(b)Women :(c)Children :

10. Average number of workers employed daily (see explanatory note) :

(a)Adults(i)Men :(ii)Women :(b)Adolescents(i)Male :(ii)Female :(c)Children(i)Male :(ii)Female :

11. Total number of man-hours worked including overtime

(a)Men :(b)Women :(c)Children :

12. Average number of hours worked per week (see explanatory note) :

(a)Men :(b)Women :(c)Children :

13. (a) Does the factory carry out any process or operations declared as dangerous under section 87 (see Rule 100)

(b)If so, give the following information:-

Name of the dangerous process or operationscarried on.	Average number of person employed daily in eachof the processes or operations given in Co1.1
1	2
(i)(ii)(iii)etc.	
Leave with Wages	

14. Total number of workers employed during the year

(a)Men(b)Women(c)Children

15. Number of workers who were entitled to annual leave with wages during the year

(a)Men(b)Women(c)Children

16. Number of workers who were granted leave during the year

(a)Men(b)Women(c)Children

17. (a) Number of workers who were discharged, or dismissed from the service, or quit employment or were superannuate, or died while in service during the year:

(b)Number of such workers in respect of whom wages in lieu of leave were paid:

18. (a) Number of safety officers required to be appointed as per notification under section 40-B:

(b)Number of safety officers appointed.Ambulance Room

19. Is there an ambulance room provided in the factory as required under section 45 ?

Canteen

20. (a) Is there a canteen provided in the factory as required under section 46 ?

(b)Is the canteen provided/managed(i)departmental, or(ii)through a contractor?Shelters or Rest Rooms & Lunch Rooms

21. (a) Are there adequate and suitable shelters or rest rooms provided in the factory as required under section 47?

(b)Are there adequate and suitable lunch rooms provided in the factory as required under section 47?Creches

22. Is there creche provided in the factory as required under section 48?

23. (a) Number of Welfare Officers to be appointed as required under section 49;

(b)Number of Welfare Officers appointed.Accidents

24. (a) Total number of accidents (See explanatory notes) :

(i)Fatal(ii)Non-fatal(b)Accidents in which workers returned to work during the year to which this return relates(i)Accidents (workers injured) occurring during the year in which injured workers returned to work during the same year:(aa)Number of accidents :(bb)Man-days lost due to accidents.(ii)Accidents (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 accidents :(bb)Man-days lost due to accidents.(c)Accidents (workers injured) occurring during the year in which injured workers did not return to work during the year to which the return relates:(i)Number of accidents :(ii)Man-days lost due to accidents.Certified that the information furnished above is to the best of my knowledge and belief, correct.Signature of the Manager.Date :Explanatory Notes:

1. The average number of workers employed daily should be calculated by dividing the aggregate number of attendance on working day (that is, man-days worked by the number of working days in the year. In reckoning attendance, by temporary as well as permanent employees should be counted, and all employees should be included, whether they are employed directly or under contractors. Attendance on separate shifts (e.g. night and day shifts) should be counted separately. Days on which the factory was closed for whatever cause and days on which the manufacturing processes were not carried on should not be treated as working days. Partial attendance for less than half a shift on a working day should be ignored, while attendance for half a shift or more on such day should be treated as full attendance.

2. For seasonal factories, the average number of workers employed during the working seasons and the off season should be given separately, similarly the number of days worked and average number of man-hours worked per week during the working and off-season should be given separately.

3. The average number of hours worked per week means the total actual hours worked by all workers during the year excluding the rest intervals but including overtime work divided by the product of total number of workers employed in the factory during the year and 52. In case the factory has not worked for the whole year, the number of weeks during which the factory worked should be used in place of the figure, 52.

4. Every person killed or injured should be treated as one separate accident. If in one occurrence six persons were injured or killed, it should be counted as six accidents.

5. In Item 24 (a), the number of accidents which took place during the year should be given in case of non-fatal accidents only those accidents which prevented workers from working for 48 hours or more, should be indicated.]

Form No. 24][Prescribed under sub-rule (2) of Rule 105]Half-Yearly ReturnPeriod ending 30th June.19.....131st December, 19.....Name of Factory.....Name of Occupier.....Name of Manager.....(1)District.....(2)Postal Address.....(3)Nature of Industry.....(4)Average number of workers employed daily MenWomenAdolescentsMaleFemaleChildrenMaleFemale(5)Number of days worked during the half-year ending 30th June, 19...../31st December, 19..Certified that the information furnished

above is, to the best of my knowledge and belief, correct.Signature of the OccupierSignature of the Manager.*The average daily number should be calculated by dividing the aggregate number of attendances on working days, by the number of working days during the half-year. In reckoning attendances, attendances by temporary as well as permanent employees should be counted and all employees should be included, whether they are employed directly or under contractors. Attendances on separate shifts, (e.g. night and day shifts) should be counted separately. Days on which the factory was closed, for whatever cause and days on which the manufacturing processes were not carried on should not be treated as working days.*Note.-Partial attendances should be treated as full attendances for the purpose of calculating average daily number of workers employed and man days worked.Forms 25, 26 & 27 DeletedForm No. 28[Prescribed under Rule 108]Muster RollName of Factory.....Place.....District.....

Serial No.	Name	Father's name	Nature of work	For the period ending.....	Remarks
				1	2

3 4 5 6 7 8

Form No. 29(Prescribed under Rule 109)Register of Accidents and Dangerous Occurrences

Name of injuredperson (if any)	Date of accident ordangerous occurrence	Date of Report (inForm No. 20 to Inspector)	Nature of accident ordangerous occurrence	Date of return ofinjured person to work	No. of days injuredperson was absent from work
1	2	3	4	5	6

Form No. 30[Prescribed under Rule 100]Special Certificate of FitnessSerial No.....Date.....I hereby certify that I have personally examined.....son of.....residing at.....who is desirous of being employed as.....in the.....and that his age, as nearly as can be ascertained from any examination, is.....years, and that he is, in my opinion, fit for employment in.....His descriptive marks are.....Signature or left thumbImpression of person employed.Signature of Certifying Surgeon.

Icertify I examined the person mentioned above on	Iextend this until	Signatureof Certifying Surgeon	Noteof symptoms

Form No. 31[Prescribed under clause (10) of Schedule XI annexed to Rule 100]Certificate of Fitness

1.	Serial No.....	Serial No.....
2.	Date.....	Date .....
3.	Name.....	I Certify that I have personally examined(name).....Son/daughter

		of.....
4.	Father's name.....	
5.	Sex.....	
6.	Residence.....	
7.	Date of birth, if available and/or certified age.	Residing at.....who isdesirous of being employ ina factory engaged in themanufacturing ofceramics or pottery
8.	Descriptive marks.....	
9.	Reason for:	On the basis of these examinations I hereby certify thathe/she is f be employed /continue working in the abovefactory. His/Her descriptive marks are:.....
(i) Refusal certificate.		
(ii) Certificate being revoked.		
Thumb impression	Thumb impression	
Initials ofcertifying Surgeon	Certifying Surgeon.	

Forms 32 & 33-Deleted[Form No. 34 [Inserted by No. 3, dated 27.2.1985 [1.4.85]]Prescribed Under Rules 110 OfThe Rajasthan Factories Rules, 1951Inspection Book containing headings as under:

Covering page	Inspection Book for Inspector/Sr. Inspector/ Dy. ChiefInspector of Factories only.
Every Numbered Page	Inspector's/Sr. Inspector's/Dy. Chief Inspector's of Factoriesremarks.]

Form No. 35[Prescribed under sub-clause (4) of Rule 105]Accidents-Annual ReturnFor the year ending 31st December, 19

1. Name of the factory etc.....

2. Number of accidents or the dangerous occurrences which took place during the year.....

3. Number of persons:

(a)Killed:Men.....Women.....Children.....(b)Injured:Men.....

4. Number of injured persons who returned to work.....

5. Number of man days lost on account of absence due to injury in the case of person, who returned to work.....

Certified that the information furnished above, is, to the best of my knowledge and belief, correct.Signature of the Manager.[Form 35] [Added by No. 4 dated 8.1.1991 [25-6-1992], without repealing the already existing Form No. 35.][Prescribed under sub-rule (4) of rule 65 (I)]Record of Eye Examination

Serial Number	Department/work	Name of worker	Sex	Age (on lastbirthday)
1	2	3	4	5

Occupation	Examinationof eye sight	Sign ofopthalmologist	Remarks		
Nature	Date ofemployment	Date	Result		
6	7	8	9	10	11