

The Gujarat Factories Rules, 1963

Chapter 1

[Preliminary]

¹[1. Short title and extent:-

- (1) These rules may be called The **Gujarat Factories rules, 1963.**
- (2) They shall extend to the whole of the State of Gujarat.]

Footnote:

1. Substituted by G.N.E., and L.D. Nos. FAC 1060/13224-1, dt. 21-1-1964.

2. Definitions:-

In these rules unless there is any repugnant in the subject or context: -

- (a) "Act" means the factories Act, 1948.
- (b) "Appendix" means an appendix appended to the Rules.
- (c) "Artificial humidification" means the introduction of moistures into the air of a room by any -artificial means whatsoever, except the unavoidable escape of steam or water vapour into atmosphere directly due to a manufacturing process :

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

- (d) "Degrees" (of temperature) means degrees or Fahrenheit scale.
- (e) "District Magistrate" includes such other officials as may be appointed by the State Government in that behalf.
- (g) "Form" means a Form prescribed in these rules,
- (h) "Fume" includes gas or vapour.
- (i) "Health Officer" means the Municipal Health Officer, District Health Officer or such other official as may be appointed by the State Government in that behalf.
- (j) "Hygrometer" means an accurate wet and dry bulb hygrometer conforming to the prescribed conditions as regards constructions and maintenance.
- (k) "Inspector" means any Inspector appointed Under the Act and includes . the Chief Inspector of Factories and a District Magistrate.
- (l) "Maintained" means maintained in an efficient state, in efficient working order and in good repair.
- (m) "Manager" means the person responsible to the occupier for the working of the factory for the purpose of the Act.

¹[2A. Competent Person :-

(1) The Chief Inspector may recognize any person as a "Competent person", for such area and for such period as may be specified, for the purpose of carrying out tests, examination and inspections of such buildings, dangerous machineries, hoists and lifts , lifting machines and lifting tackles, pressure plants, confined spaces, ventilation systems and such other processes or plants and equipments located in a factory, as stipulated in the Act and the rules, if such a person possesses the qualifications experience and other requirements as set out in the Schedule annexed to this rule:

Provided that the Chief Inspector may relax the requirements of qualifications (but not the requirements in respect of the facilities at the command of such a person) if such a person is exceptionally experienced and knowledgeable

Provided further that where it is proposed to recognise a person employed under the Chief Inspector as "competent person" recognised under this provision shall not be above age of 62 and shall be physically fit for the purpose of carrying out the tests, examinations and inspections.

(2) The Chief Inspector may recognise as a "Competent Person" for such area and for such period as may be specified by him any of the reputed institutions having persons possessing qualifications and experience as set out in the Schedule referred to in sub-rule (1) of this rule for the purpose of carrying out the tests, examinations and inspections of such building, dangerous machineries, hoists and lifts, lifting machineries and lifting tackles, pressure plants, confined spaces, ventilation systems and such other processes or plants and equipments as stipulated in the Act and rules made there under.

(3) The Chief Inspector shall, on receipt of an application in the prescribed Form No. 26 or 27 from a person or institution respectively, intending to be recognised as a "Competent person", register such application immediately and after having satisfied himself as regard competence and facilities available at the disposal of the applicant, either recognise the applicant as a "Competent person" and issue a certificate of competency in the prescribed Form No.4A within a period of sixty days from the date of receipt of the application or reject the application specifying the reasons therefore.

(4) The Chief Inspector may, after giving an opportunity to the person of being heard, revoke the certificate of competency: -

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

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

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

(ii) for any other reasons to be recorded in writing.

Explanation:- For the purpose of this rule, institution includes an organisation.

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

Footnote:

1. Ins. by Notfn. dated 15.2.1995 (15.2.1995).

Schedule

[Prescribed under Rule 2-A(1)]

Sr. No.	Section or Rule under which competency is Recognized	Qualification required	Experience for the purpose	Facilities at his command
(1)	(2)	(3)	(4)	(5)
1.	Rules made under Sec. 6 and Sec, 112-Certification of stability for buildings.	Degree in civil or Structural Engineering or equivalent	<p>(i) A minimum of 10 years of experience to the design of construction or testing or repairs of structures;</p> <p>(ii) Knowledge of non-destructive testing various codes of practices that are current and the effect of the vibrations and natural forces on the stability of the building and</p> <p>(iii) Ability to arrive at a reliable conclusion with regard to the safety of the structure of the building.</p>	
2.	Rules made under Sec. 2(1) "Dangerous Machines"	Degree in electrical or mechanical or textile engineering or Its equivalent qualification	<p>(i) A minimum of 7 years of experience In:-</p> <p>(a) design or operation maintenance; or</p> <p>(b) testing examination and inspection of relevant machinery, their guards, safety devices and appliances.</p> <p>(ii) He shall:-</p> <p>(a) be conversant with safety devices and their proper functioning;</p> <p>(b) be able to identify defects and any other cause leading to failure;</p> <p>(c) and have ability to arrive at a reliable conclusion with regard to The proper function of safety device and appliance and machine guard.</p>	Gauges for measurement; Instruments for Measurements of speed and any other equipment or device to determine the safety in the use of the dangerous machines.
3.	Section 28-lifts	A degree in	(i) A minimum experience of	Facilities for load

	and Hoists.	Electrical and/or Mechanical Engineering or its equivalent.	<p>7 years in: -</p> <p>(a) design or erection or Maintenance; or</p> <p>(b) Inspection and test procedures; of lifts and hoists;</p> <p>(II) He shall be: -</p> <p>(a) Conversant with current relevant codes of practices and test procedures;</p> <p>(b) Conversant with other statutory requirements covering the safety of the Hoists and Lifts.</p> <p>(c) Able to identify defects and arrive at a reliable conclusion with regard to the safety of Hoists and Lifts.</p>	testing, tensils testing, gauges equipment / gadgets for measurements and any other equipment required for determining the safe working conditions of Hoists and Lifts.
4.	Section 29-Uftng Machinery and lifting tackles.	Degree in mechanical or electrical or metallurgical engineering or Us equivalent	<p>(1) A minimum experience of 7 years In: -</p> <p>(a) design or erection or maintenance, or</p> <p>(b) testing, examination and Inspection of lifting machinery, chains, ropes and lifting tackles.</p> <p>(ii) He shall be</p> <p>(a) conversant with current relevant codes of practices and test procedures;</p> <p>(b) conversant with fracture mechanics and metallurgy of the material of construction;</p> <p>(c) conversant with, heat treatment/stress relieving techniques as applicable to stress bearing components and parts of lifting machinery and lifting tackles</p> <p>(d) capable of Identifying defects and arriving at a reliable conclusion with regard to the safety of lifting machinery, chains, ropes and lifting tackles.</p>	Fatuities for load testing, tensile testing, heat treatment, equipment/gadget for measurement gauges and such other equipment to determine the safe working conditions of the lifting machinery tackles.

5.	Section 31 Pressure Plant	Degree In chemical or electrical or metallurgical or mechanical engineering or Its equivalent.	<p>(i) A Minimum experience of 10 years In: -</p> <p>(a) design or erection or maintenance; or</p> <p>(b) testing, examination and Inspection of pressure plants.</p> <p>(ii) He shall be: -</p> <p>(a) conversant with the relevant codes of practices and test procedures relating to the pressure vessels;</p> <p>(b) conversant with statutory requirements concerning the safety of unfired pressure vessels and equipment operating under pressure:</p> <p>(c) conversant with non-destructive testing techniques as are applicable to pressure vessels:</p> <p>(d) able to identify defects and arrive at a reliable conclusion with regard to the safety of pressure plants.</p>	Faculties for carrying out hydraulic test non-destructive test, gauge equipment/ gadgets for measurement and any other equipment or gauges to determine the safety In the use of pressure vessels:
6.	Section 36:- Precautions against dangerous fumes (ii) Rules made under Sees. 41 & 112 concerning ship building, ship repairs and ship breaking.	Master's Degree In Chemistry or a degree In chemical Engineering.	<p>(i) A minimum experience of 7 years in collection and analysis of environmental samples and calibration of monitoring equipment;</p> <p>(ii) He shall: -</p> <p>(a) be conversant with the hazardous properties of chemicals and their permissible limit values;</p> <p>(b) be conversant with the current techniques of sampling, and analysis of the environmental contaminants; and</p> <p>(c) be able to arrive at a reliable conclusion as regard the safety in respect of entering and carrying out hot work.</p>	Meters, Instruments and devices duly celebrated and Certified for carrying out the tests and certification of safety in working in confined spaces.

7.	<p>7. Ventilation system as required under various schedule framed under Sec. 87 such as Schedules on: -</p> <p>(i) grinding or glazing of metals and processes incidental thereto.</p> <p>(ii) cleaning or smoothening, roughning etc. of articles, by a Jet sand, metal shot or grit or</p> <p>(ii) other abbreasive propelled by a blast of compressed air or steam.</p> <p>(iii) handling and Processing of asbestos</p> <p>(iv) manufacture of Rayon by Viscose process.</p> <p>(v) foundry operations</p>		<p>(i) A minimum experience of 7 years in or Electrical the design. fabrication, installation, Engineering or testing of ventilation system and equivalent. systems used for extraction and collection of dusts, fumes and vapors and ancillary equipments,</p> <p>(ii) He shall be conversant with current relevant codes of practice and test procedures in respect of ventilation and extraction system for fumes and shall be able to arrive at a reliable conclusion with regard to effectiveness of the system.</p>	<p>Facilities for testing the ventilation system instruments and guages for testing the effectiveness of the extraction systems for dusts, vapours and fumes, and any other equipment needs for determining the efficiency and adequacy of these systems. He shall have the assistance of suitable qualified technical persons who can come to a reasonable conclusion as to the a equacy of the system.</p>
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Rule 3 to II prescribed under sub-section (If of Sec. 6

3. Approval of plans

(1) An application for obtaining previous permission for the site on which the factory is to be situated and for the construction or extension of a factory shall be made to the Chief Inspector of Factories, Application for such permission shall be made in Form No. 1 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.;
- (ii) the plan elevation and necessary cross-sections of the various buildings, indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire. The plans shall also clearly indicate the position of the plant and machinery, aisles and passage ways; and
- (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 tie may call for such approval to be given.

¹**[3-A.** No building or premises shall be constructed, extended or taken into use as factory or part of factory unless the previous permission in writing is obtained from the Chief Inspector of Factories.]

Footnote:

1. Ins. by Notfn. dated 18.10.1968

¹**[3-B.** The State Government may require, for the purpose of the Act, submission of plan 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:

- (a) the site of the factory and immediate surroundings including adjacent buildings and other structures, roads, drainage, etc.:
- (b) the plan, elevation and necessary cross section of the factory buildings indicating all relevant details relating to natural lighting, ventilation and means of escape in case of the fire and the position of the plant and machinery, aisles and passage ways, and
- (c) such other particulars as the State Government may require.)

Footnote:

1. Ins. by Notfn. dated 15.2.1995

¹**[3-C. Certificate of stability:-**

No manufacturing process shall be carried out in any premises of a factory constructed, reconstructed or extended or in any premises which has been taken into use as a factory or part of the factory until a certificate of stability issued by a competent person in respect of every work of engineering construction in the Form No. 1-A has been sent by the Occupier of the Factory to the Chief Inspector of Factories and accepted by him:

Provided that for the factories which are in existence on the date of coming Into force of these rules, the certificate of stability in Form 1-A may be sent to the Chief Inspector of Factories within three months from the date of publication of this Notification :

Provided further that no manufacturing process shall be carried out in any premises of a factory unless a fresh certificate of stability in Form 1-A is obtained from a competent person once in each period of five years or after every extension, alteration, repairs or addition of machinery, plants etc. and sent to the Chief Inspector of Factories:

Above 50 Horse power	800	1056	1760	3080	5280	10560	17600	21120	24640
upto 100 Horse power									
Above 100 Horse power	1408	1760	2816	3520	7040	14080	21120	24640	38160
upto 250 Horse power									
Above 250 Horse power	1760	2640	3250	7040	10560	17600	24640	28160	31680
upto 500 Horse power									
Above 500 Horse power	2200	3080	7040	10560	14080	21120	28160	31680	35200
upto 1000 Horse power									
Above 1000 Horse power	3250	7040	10560	14080	17600	24640	31680	35200	39600
upto 2000 Horse power									
Above 2000 Horse power	7040	10560	14080	17600	24640	31680	35200	39600	45760
upto 5000 Horse power									
Above	14080	15840	17600	22000	24600	35200	40480	44000	51920]

5000 Horse power									
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Provided that:-

(1) fees to be charged for the following classes of Factories shall be one half of those specified above if they do not work for more than 180 days in the aggregate in a calendar year :

- (a) Cotton Ginning and Pressing Factories,
- (b) Gur Factories,
- (c) Zarda Factories (tobacco processing),
- (d) Cashewnut Factories.
- (e) Groundnut Decorticating Factories,
- (f) Rice Mills,

(ii) in the case of other factories working for a part of the year, commencing work on or after the 1st day of July the fees to be charged for the first time shall be one half of the relevant fees specified in the Schedule aforesaid subject to a minimum of Rs. 5.

Footnote:

1. Subs, by Notfn. dated 31.8.1990, G.G.Gaz., Ext., Pt. IV-A, dt. 31.8.1990, p.105-1. again subs. Noti. No. dt. 28.11.2000 GHR-2000-63-FAC-1093-1879 M(3). and after that schedule substituted by Noti. No. GHR/2006/38-FAC-2003- 3324-m(3) dt 5th June, 2006

¹[5. Grant of licence:-

(1) The Chief Inspector may, on receipt of an application under sub-rule (1) of Rule 4, and on payment of the relevant fees specified in sub-rule (2) of that rule, and on being satisfied that there is no objection to the grant of licence applied for, register the factory and grant the licence 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.

(2) The Chief Inspector may refuse to register the factory and to grant 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,
- (b) for the construction or extension of the factory, or

(ii) that the application is accompanied by plans which have not been approved or the condition subject to which they are approved have not been complied with.

(iii) that material requirements of the relevant provisions specified in Schedule to Rule 102 of these rules in relation to the factory concerned have not been complied with, or

(iv) 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.

(3) 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 December next following and shall then expire.)

Footnote:

1. Substituted by G.N.E., and L.D. Nos. FAC 1060/13224-1, dt. 21-1-1964.

6. Amendment of licence:-

⁵[(1) A licence granted under Rule 5 may be amended by the Chief Inspector/ Director, Industrial safety & health or the Inspectors within their local Limits].

(2) A licensee shall be required to have his licence amended if there is a change in the name of 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. The licensee whose licence is required to be amended ¹[shall submit it to the Chief Inspector Director, Industrial safety and Health] ⁵[or the inspector within their Local limits] so as to reach him within a period of 30 days from the date the event requiring amendment of the licence occurs with an application stating the nature of the amendment and reasons therefore:

²[Provided that no amendment of the licence shall be necessary in respect of changes in the number of workers or horse-power or both unless such changes involve higher licence or renewal fee.]

³[(3) Where a licence is required to be amended under sub-rule (2) the fee to be paid for such amendment shall be equal to the difference between the licence or renewal fees on the basis of the higher number of workers and horse power and fees for the grant of licence or renewal thereof already paid for the year or part thereof.]

⁴[(4) If the application for the amendment of licence is received at any time after the expiry of the period specified in sub-rule (2) then notwithstanding any action which may be taken against the licensee for such default, the licence may be amended on payment of an additional fee equal to 25 per cent of the fee payable under sub-rule (3).]

Footnotes:

1. Substituted for the words "shall submit it to the Chief Inspector" vide G.N.E. and L.D. No. KH-SH/853/FAC-U64-3510-T, dated the 18th October, 1968.

2. Proviso to sub-rule (2) of Rule 6 inserted vide G.R. ibid.

3. Substituted by G.N.E. and L.D. No. FAC, 1060/13224-1, dated 21st January, 1964.

4. Sub-rule (4) inserted vid G.N.E. and L.D. No. KH-SH-853/FAC-1164/3510, dated the 18th October. 1968.

5. Inserted by Noti.No GHR-2005-01-FAC-2004-840-M(3) dt 1-1-2005

¹[**7. Renewal of licence:-**

(1) An application for the renewal of licence shall be sent by registered post to the Chief Inspector Director, Industrial safety and Health] ²[or the inspector within their Local limits] in Form No. 3 accompanied by a treasury receipt, a crossed cheque, crossed Indian Postal Order or as the case may be, an invoice for book adjustment, for payment of the fees specified in the Schedule 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 November in any year,

application for renewal of the licence shall be made on or before the 1st day of January next following.

³"Provided further that an application for the renewal of licence shall be made for five consecutive years. The payment of fees for the renewal of licence shall be five times of the fees specified in the schedule to rule 4."

(2) On receipt of the application under sub-rule (1), Chief Inspector, Director, Industrial safety and Health] ²[or the inspector within their Local limits] the Chief Inspector may, if he is satisfied that there is no objection of the renewal of the licence, renew the same or may, after recording his reason refuse the renewal of licence applied for on any of the grounds specified in sub-rule (2) of Rule 5: -

Provided that where the application for the renewal of the licence is made after the expiry of the period specified in sub-rule (1), it may be renewed on payment of an additional fee of 25 percent of the fee payable for the renewal of the licence.]

Footnotes:

1. Substituted by G.R. *ibid*.
2. Inserted by Noti.No GHR-2005-01-FAC-2004-840-M(3) dt 1-1-2005
3. Inserted by Noti. No. GHR / 2006/38-Fac - 2003-3324-M(3) dt. 5-6-06

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 on the Chief Inspector / Director, Industrial safety and Health] ²[or the inspector within their Local limits] who shall 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 ¹[fifty] rupees shall be charged on each such application.

Footnote:

1. Subs, by Notfn. dt. 31.8.1990, G.G. Gaz.. Ext., Pt. 1-A, dt. 31.8.1990, p. 105-1.
2. Inserted by Noti.No GHR-2005-01-FAC-2004-840-M(3) dt 1-1-2005

¹[8-A. When licence deemed to be granted or renewed :-

Where an application for the grant or renewal of licence is duly made in accordance with these rules, the factory in respect of which the licence is to be granted or renewed, as the case may be, shall be deemed to be duly licensed until such licence is granted or renewed or until an intimation that the grant or renewal of the licence had been refused is communicated to such person.

Explanation :- For the purpose of this rule an application for the grant or renewal of a licence shall be deemed to have been duly made only if it is in the form specified there of and is filled in with all relevant particulars and further is accompanied by a treasury receipt, a crossed cheque, a crossed Indian Postal Order or as the case may be, an invoice for book adjustment, for payment of the fees in accordance with the Schedule annexed to Rule 4.]

Footnote:

1. Rule 8-A inserted vide G.N.E. and LD. No. FAC-1069/13224-1, dt. 21-1-1964.

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 licensee by the licence during such time as may be 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.

¹[10. Loss of licence :-

(1) Where a licence granted under these rules is lost or destroyed, a duplicate thereof may be granted.

(2) The Chief Inspector may require a licensee to obtain a duplicate licence if the original licence is defaced or spoilt.]

Footnote:

1. Rule 10 substituted vide G.N.E. & L.D. No. FAC1060/13224-1, dt. 21st January, 1964.

¹[11. Mode of payment of fee :-

(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 "XXXII. Miscellaneous Social & Development Organizations" or by a crossed cheque or crossed Indian Postal Order for the appropriate amount of fees drawn in favour of Chief Inspector:

Provided that in the case of a Government factory the payment of the appropriate amount of fees shall be made in the same manner as payments 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

²[(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.]

Footnotes:

1. Rule 11 substituted vide G.R. *ibid*.

2. Rule 11 (3) inserted vide G.R. *ibid*.

¹[11-A. Suspension of licence:-

(1) If before the 31st October 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 revived on receipt of an application for renewal in Form No. 3 accompanied by the licence for the remaining part of the year on payment of the relevant fees specified in Rule 7 and a surcharge at the rate often percent of such fee.]

Footnote:

1. Rule 11-A inserted vide G.N.E. & LD. No. FAC 1060/13224-1, dt. 21st January, 1964

Form Prescribed Under Sub-Sec. (1) of Sec. 7

12. Notice of occupation:-

The notice of occupation shall be in Form No.2.

¹[12-A. Notice of appointment of new manager:-

The notice of appointment of a new manager shall be sent under sub-sec. (41) of Sec. 7 in Form 3-A.]

Footnote:

1. Rule 12-A Inserted vide G.N.E. & LD. No. Fac. 1060/13224-1 dt 21-1-04.

¹[12-B. Maintenance of records:-

The occupier shall maintain records, in Form No. 37 in respect of monitoring of working environment in the factory.

Footnote:

1. Ins. by Noti. dt. 15.2.1995

12-C. Health and safety policy:-

(1) The occupier of every factory shall prepare except as provided in sub-rule (2) a written statement of his policy in respect of Health & Safety of workers at work.

(2) All factories: -

- (a) covered under Sec. 2(m) but employing less than 50 workers;
- (b) covered under Sec. 2(m) (II) but employing less than 100 workers; are exempted from requirements of sub-rule (1).

(3) The health and safety policy shall contain or deal with: —

- (a) declared intention and commitment of the top management to health, safety and environment and compliance with all the relevant statutory requirements;
- (b) 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 shall 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 at least once in every two years on the status of health, safety and environment and taking all the remedial measures.
 - (f) stating its intention 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 retraining and retraining its own employees at different levels and the public, wherever required.
- (5) A copy of the declared health and safety policy signed by the occupier shall be made available not only to the Inspector having jurisdiction over the factory but also to the Chief Inspector.
- (6) The policy shall be made widely known by: -
- (a) making copies available to all workers including contract workers, apprentices, transport workers, suppliers, etc.
 - (b) displaying copies of the policy at conspicuous places: and
 - (c) any other means of communication in a language understood by majority of workers.
- (7) The occupier shall revise the safety policy as often as may be appropriate, but it shall necessarily be revised under the following circumstances:
- (a) whenever any expansion or modification having implications on safety and health of persons at work is made, or
 - (b) when new substances or articles are introduced in the manufacturing process having implications on health and safety of persons exposed to such substances.)

Chapter II

The Inspecting Staff

Rule Prescribed Under Sub-sec. (1) of Sec. 8

13. Appointment of Inspectors:-

No person shall be appointed as inspector for the purposes of the Act unless he possesses the qualifications prescribed for such inspectors in the Bombay Civil Services Classification and Recruitment Rules at the time of his appointment.

Rule Prescribed Under Sec. 9

14. Powers of Inspectors:-

An Inspector shall, for the purpose of the executing 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; and 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 this duties under the Act;
- (c) to prosecute, conduct or defend before a Court any complaint or other proceeding arising under the Act or in discharge of his duties as an Inspector:

Provided that the powers of the District Magistrates and such other officers as are appointed to be Additional Inspectors shall, unless otherwise expressly provided in the notifications under sub-sec. (5) of Sec. 8, be limited to the inspection of factories in respect of the following matters, namely:—

Cleanliness (Sec. 11), Overcrowding (Sec. 16), Lighting (Sec. 17), Drinking water (Sec. 18), Latrines and urinals (Sec. 19), Spittoons (Sec. 20). Precaution in the case of fire (Sec. 38), Welfare (Chapter V), Working hours of adults (Chapter VI) (Except the power of exemption under the proviso to Sec. 62), Employment of young persons (Chapter VII), Leave with wages (Chapter VIII) and Display of Notices (Sec. 108):

Provided further that:—

- (i) the District Magistrate shall not pass any original orders or remarks under Sees. 11,17 and 38 of the Act but shall limit and confine his orders or remarks under those section to the points to which the full time Inspector of Factories has, already directed the attention of manager or occupier of the factory as the case maybe;
- (ii) all Additional Inspectors except District Magistrate shall report the defects found and remedies Inspector who shall pass final orders In each case.

Rules Prescribed Under Sub-sec. (4) of Sec. 10

15. Duties of Certifying Surgeon:-

- (1) For purposes of the examination and certification of young persons who wish to obtain certificates 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 Certificate 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, so delivered shall be the certificate is granted. The foil so delivered shall be the certificate of fitness granted under Sec. 69. All counterfoils shall all be kept by 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 inquiries 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.
- (4)
 - (a) A fee of Re. 1 shall be payable for the issue of every certificate of fitness issued under Rule 15(2) and shall be paid by the occupier.
 - (b) A fee of annas 8 shall be payable for the issue of every duplicate certificate under Rule

15(3) and shall be paid by the occupier.

(5) 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 or work prevailing therein, or
- (b) by reason of any change in the manufacturing process carried on or in the substance 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 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.

(6) For purpose of the examination of persons employed in process 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.

¹[(7) At such visits the Certifying Surgeon after examining a worker, shall issue a certificate of fitness in Form No. 5. The record of examination and re-examinations carried out shall be kept in the custody of manager of the factory. The record of the each examination carried out under sub-paragraphs (1) & (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. 20.]

(8) If the Certifying Surgeon finds as a result of his examination that any person employed in such process is no longer fit for medical reasons to work in that process, he shall suspend such 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.

(9) 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.

(10) 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.

Footnote:

1. Subs. by Noti. dt. 15.2.1995

Chapter III

Health

Exemptions under Sub-sec. (2) of Sec. 11. 16.

16. Cleanliness of walls and ceilings:-

(1) Clause (d) of sub-sec. (1) of Sec. 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 clean state by washing, sweeping, brushing, dusting, vacuum-

cleaning or other effective means:

Provided further that 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 14.2 cubic meters;
 - (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 70.75 cubic meters;
 - (iii) to engine houses, fitting shops, lunch-rooms, canteens shelters, creches, cloak rooms, rest rooms and wash-places: and
 - (iv) to such parts of walls, sides and tops of passage and staircases as are less than 6.1 meters 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 from 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 - Part A

Blast furnaces.	Gas works
Brick and tile works in which unglazed bricks or tiles are made.	Iron and steel mills
Cement Works.	Stone, steel mills.
Chemical Works.	Stone, slate and marble works.
Copper mills.	

The following parts of factories:-

- * Rooms used only for the storage of articles.
- * Rooms in which the walls or ceilings consist of galvanized iron, glazed bricks, glass, slate, asbestos bamboo match.
- * Part 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 6.1 meters above the floor.
- * Ceilings or tops of rooms in print works, bleach works or dye works, with the exception of finishing

rooms or warehouses.

- * Inside walls of oil mills below a height of 1.5 meters from the ground floor level. Inside walls in tanneries below a height of 1.5 meters from the ground floor level where a wet process is carried on.

Part B

- * Coach and motor-body works.
- * Electric generation 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-sec. (1) of Sec. 11

17. 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.

¹Rule Prescribed Under Sub-sec. (1) of Sec. 11 And Sec. 112

17-A. 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.

Footnote:

1. Ins. by G.N., D.D. No. 264/46, dt. 7.10.1955

Rule Prescribed Under Sub-sec. (1) of Sec. 12

18. Disposal of trade wastes and effluents:-

(1) In the case of a factory where the drainage system is proposed to be connected to the public sewerage system, prior approval of the arrangements made shall be obtained from the local authority.

(2) In the case of factories other than those mentioned in sub-rule (1) of this rule, prior approval of the arrangements made for the disposal of trade-wastes and effluents shall be obtained from the Health Officer.

18-A. Ventilation and Temperature:-

(1) Limit of temperature and air movement:- In any factory, the maximum wet bulb temperature of air in a workroom at a height of 1.5 (meter) above the floor level shall not exceed 30°C (80°F) and

adequate air movement of at least 30 meter 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 following schedule, or as regards a dry bulb reading inter - mediate between the two dry bulb reading that specified in relation to the higher of these two dry bulb readings:

Schedule

Dry-Bulb Temperature	Wet-Bulb Temperature
30°C to 34°C	29°C
35°C to 39°C	28°C
35°C to 47°C	28°C
45°C to 47°C	27°C

Provided that if the temperature measured with the thermometer inserted in the hollow glob of 15 cm. diameter 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 glob thermometer shall be taken in place of the dry bulb temperature: -

Provided further that when the reading of the wet-bulb temperature outside the shade exceeds 27°C (80°. 6F), the value of wet-bulb temperature allowed in the schedule for a given dry bulb temperature may be correspondingly increased to the same extent: -

Provided also that this requirement shall not apply in respect of factories covered by Sec. 15 and in respect of factories where the nature of work carried on involves production of excessively high temperature referred to in clause (ii) of sub-sec. (1) of Sec. 13 to which workers are exposed for short periods of time not exceeding on hour followed by an interval of sufficient duration in thermal environments not exceeding those otherwise laid down in this rule.

(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 or 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 whirring hygrometers or any other types of hygrometers and direct that the dry bulb and wet bulb reading in each such work-room shall be recorded at such position as approved by the Inspector twice during each working shift by a person especially nominated for the purpose by the manager and approved by the Inspector.

(ii) If the Inspector has reason to believe that substantial amount of heat is added inside the environment of a work-room by radiation from walls, roof, 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 provision in sub-rule (1) and further require him to place globe thermometers at places specified by him and keep a record of the temperatures in the suitable registers.

(3) Ventilation :-

(i) 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 clause (II) below 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 this requirement shall not apply in respect of work rooms of factories :-

(a) covered by Sec. 15; or

(b) in which temperature and humidity are controlled by refrigeration.

(ii) Wherein any factory owing to special circumstances such as situation with respect to adjacent building and height of the building with respect to floor space, the requirement of ventilation opening under clause (1) cannot be complied with or in the opinion of the Inspector the temperature or air in a work-room is sufficient 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 additional ventilation either by means of roof ventilation or by mechanical means.

(iii) The amount of fresh air supplied by mechanical means of ventilation in an hour shall be equivalent to about six times the cubic capacity of the work-room and shall be distributed evenly throughout the work-room without dead air-pockets or undue drought caused by high inlet velocities.

(iv) In regions wherein summer (15th March to 15th July) dry-bulb temperature of outside air in the shade during most part of the day exceed 35°C (95°F) and simultaneous wet-bulb temperature are 25°C (60°F) 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 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 evaporative air-coolers (desert coolers) 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 19 to 29 Prescribed Under Sub-sec. (1) of Sec. 15. 19.

19. 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 or of these two dry bulb reading:—

Schedule

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	89.5
68.0	66.0	85.0	82.0	102.0	90.0
69.0	67.0	86.0	82.5	103.0	90.0
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.

20. Provision of hygrometer:-

In all departments of cotton spinning and weaving mills wherein artificial humidification is adopted hygrometers 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 8495 cubic meters capacity and one extra hygrometer for each 5663.4 cubic meters 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 position approved by the Inspector, for taking hygrometer shade readings.

21. Exemption from maintenance of hygrometers:-

When the Inspector is satisfied that the limits of humidity allowed by the Schedule to Rule 19 are never exceeded, he may, for any department other than the weaving department, grant exemption from the maintenance of the hygrometer. The Inspectors shall record such exemption in writing.

22. Copy of Schedule to Rule 19 to be affixed near every hygrometer:-

A legible copy of the Schedule to rule 19 shall be affixed near each hygrometer.

23. Temperature to be recorded at each hygrometer:-

At each hygrometer maintained in accordance with Rule 20, correct wet and dry bulb temperatures shall be recorded daily during working hours, except intervals for rest, by competent persons nominated by the Manager and approved by the Inspector. The temperature shall be taken between 7 a.m./p.m. and 9 a.m./ p.m. between 11 a.m./p.m. and 2 p.m./a.m. and between 4 p.m./a.m. and 5-30 p.m./a.m. If the factory is working during these hours. 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 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.

24. 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 divisional 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 a 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 7.6 centimeters from the dry bulb or less than 2.5 centimeters from the surface of the water in the reservoir and the water reservoir shall be below it, on the side of it away from 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 61 centimeters.

(6) Each thermometer shall be graduated so that accurate readings may be taken between 50 and 120 degrees.

(7) Every degree from 30 degrees upto 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 intermediated 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 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.

25. 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.

26. 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 shall be kept attached to the Humidity Register.

27. Hygrometer not to be affixed to wall, etc. unless protected by wood:-

(1) No hygrometer shall be affixed to a wall, pillar or other surface unless protected there from by wood or other non-conducting material at least 12.7 millimeters in thickness and distant at least 2.5 centimeters from the bulb of each thermometer.

(2) No hygrometer shall be Fixed at a height of more than 1.7 meters from the floor to the top of

thermometer stem or in the direct draughts from a fan, window or ventilating opening.

28. 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.

29. 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 5.1 centimeters and in the case of pipes installed after 1st day of January 1950 the diameter shall not exceed 2.5 centimeters;
- (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 12.7 millimeters in thickness;
- (d) no uncovered jet from such pipes shall project more than 11.5 centimeters beyond the outer surface of any cover;
- (d) the steam pressure shall be as low as practicable and shall not exceed 31.8 kilograms per 6.3 square centimeters or 5 kilograms per square centimeter;
- (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.

Rules 30 to 34 Prescribed Under Sub-sec. (4) of Sec. 17.

30. ¹[X XX] Lighting-Application and commencement:-

(1) Subject as in these Rules provided Rules 30 to 34 shall apply to factories in which persons are being regularly employed in a manufacturing process or processes for more than 48 hours a week, or in shifts provided that nothing in these rules shall be deemed to require the provision of lighting of a specified standard in any building or structure so constructed that, in the opinion of the Chief Inspector, it would not be reasonably practicable to comply with such requirement.

²(2) Rules 30 to 34 shall come into force, in respect of class or description of factories, on such dates as the State Government may, by notification in the Official Gazette, appoint in this behalf.

Footnote:

- 1. Word "Artificial" deleted vide CON. L & S.W.D. No. FAC 1158-J, dated 30th June, 1959.
- 2. Rule 30, sub-rule (3) of Rule 31 and Rules 32, 33 Rules came into force in respect of Cotton Ginning Factories and Rules 30, 32 and 33 came into force in respect of classes of factories other than Cotton Ginning with effect from 20th December, 1950 vide Government Notification Labour and Hosing Department No. 44/48-1, dt. 20th December, 1950.

31. Lighting of interior parts:-

(1) The general illumination over those inter parts of a factory where persons are regularly employed shall be not less than 30 meters candles measured in the horizontal plane at a level of 91.4 centimeters

above the floor:

Provided that in any such parts in which the mounting height of the light source of general illumination necessarily exceeds 7.6 meters 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 meters candle and where work is actually being done the illumination shall be not than 30 meters candles.

- (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 meters candles 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 time when artificial lighting necessary and is ordinarily used :-
 - (i) by means of electricity, to the satisfaction of the inspector, one lamp per six gins, each lamp of not less than twenty-five candles power;
 - (ii) by candles placed in glass lanterns of 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 provisions of any additional illumination required to render the lighting sufficient and suitable for the nature of the work.

32. Prevention of glare:-

- (1) Where any source of artificial light in the factory is less than 4.9 meters above floor level, no part of the light source or of the lighting fitting having a brightness greater than 1.5 candles per square centimeter shall be visible to persons whilst normally employed within 30.48 meters of the source, except where the angle of elevation from the eye of the source or part of the fitting as the case may be exceeds 20°
- (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 the normal working place, or shall be so placed that no such person is exposed to glare therefrom.

33. Power of 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 requirements of Rules 30 to 32 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 condition as he may specify.

34. Exemption from Rule 31:-

- (1) Nothing in Rule 31 shall apply to the parts of factories specified in Part I of the Schedule annexed hereto.
- (2) Nothing in sub-rule (1) of Rule 31, shall apply to the factories or parts of factories respectively specified in Part II of the said Schedule.

Schedule

Part I

Parts of factories in which light sensitive photographic materials are made or used in an exposed condition or where such exposing operations are carried on.

Part II

Cement works.

Works for the crushing and grading of limestone.

Gas Work.

Coke Oven Works.

Electrical stations.

Flour Mills.

Maltings and Breweries.

Parts of factories in which the following processes are carried on :—

Concrete or artificial stone making.

Conversion of iron into steel.

Smelting of iron ore.

Iron or steel rolling.

Hot rolling or forging, tempering or annealing of metals.

Glass blowing and other working in molten glass.

Tar distilling.

Petroleum refining and blending.

Rules 35 to 40 Prescribed Under Sub-sec. (1) of Sec. 18.

35. Quantity of drinking water:-

The quantity of drinking water to be provided for the workers in every factory shall be at least 4.5 liters, water shall be readily available at all times during working hours.

36. Source of supply:-

The water provided for drinking shall be supplied: -

(a) from the taps connected with a public water supply system, or

(b) from any other source approved in writing by the Health Officer.

¹37. Storage of water :-

If drinking water is not supplied from taps connected with a public water supply system which is continuous, such water shall be kept in suitable vessels with taps and dustproof cover placed on raised platforms in the shade with drains to carry away the waste water. Such vessels shall always be kept scrupulously clean and the water renewed at least once every day. Where the water is drawn from the tube wells, such water may be drawn in vessels direct from supply taps.]

Footnote:

1. Subs. by G.M., D.D., No. 264/48, dt. 7.10.1955

38. Cleanliness of wells or reservoir:-

(1) Drinking water shall not be supplied from any open well or reservoir unless it is so constructed, 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 sterilised once a week or more frequency if the inspector by written order so requires, and the date on which sterilising is carried out shall be recorded

Provided that the 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.

39. Report from Health Officer:-

The inspector may by 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.

¹[40. Cooling of water:-

In every factory wherein more than 25 workers are ordinarily employed: -

- (a) the drinking water supplied to the workers shall from the 1st of March to 30th of November 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) (i) 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 Centers";
- (ii) at least one such centre shall be provided on each floor if the factory has more than one floor;
- (c) the "Water Centers" shall be sheltered from the weather and adequately drained;
- (d) (i) the number of "Water Centers" to be provided shall be one "Water Centre" for every 150 workers or part thereof employed at any one time in the factory:

Provided that in the case of a factory where the number of workers employed exceeds 450, it shall be sufficient if there is one "Water Centre" as aforesaid for every 150 workers up to the first 450 and one for every 450 workers or part thereof thereafter, and in counting the number, account shall be taken of the maximum number of workers working at any time during the day;

- (ii) where drinking water is provided through taps or through drinking fountains each "Water Centre" shall have at least three such taps or fountains. The taps or fountains, shall be at least 61 centimeters apart, and shall have a trough to drain away the spilt water. The trough and the walls and platform near the tap shall be laid in glazed tiles:

Provided that where mechanical refrigerating units with drinking water fountains distributed throughout the factory, are provided the number of "Water Centers" may not be according to the standard prescribed under sub-clause (i) above, as long as the total number of fountains provided is in accordance with the prescribed standard if the number of "Water Centers" as prescribed in sub-clause (i) were provided;

- (e) (i) every "Water Centre" shall be maintained in a clean and orderly condition;
- (ii) every "Water Centre" shall be in charge of a suitable person who shall distribute the water and who shall be, provided with clean clothes while on duty:

Provided that in respect of factories where mechanical refrigerating units and taps are provided to the satisfaction of the Chief inspector, he may exempt such a factory on an application made by the manager from the provisions of sub-clause (11) of such conditions as he may deem fit.)

Footnotes:

1. Subs. by G.M., D.D., No. 264/48, dt. 7.10.1955

Rules 41 to 50 Prescribed Under Sub-sec. (3) of Sec. 19.

41. 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 Rules, any odd number of workers less than 25 or 50, as the case may be. shall be reckoned as 25 or 50 and the number or workers to be considered shall be the maximum number employed at any time during the day.

42. ¹[x x x]

Footnote:

1. Del. vide G.N., D.D., No. 264/46, dt. 7.4.1956

43. 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.

44. Sign boards to be displayed:-

Where workers of both sexes are employed, there shall be displayed out side 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.

¹[45. Urinal accommodation:-

There shall be at least one urinal for every 50 male workers or part thereof employed at a time: 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 and one for every 100 or part thereof thereafter.]

Footnote:

1. Subs. vide G.N., D.D., No. 264/46, dt. 7.4.1956

¹[46. Latrines and Urinals to conform to public health requirements :-

Latrines and urinals other than those connected with an efficient water borne sewerage system, shall comply with the requirements of the Public Health Authorities.]

Footnote:

1. Subs. vide G.N., D.D., No. 264/46, dt. 7.4.1956

47. 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 33.5 meters of an existing sewer, be connected with that sewerage system.

48. White-washing, colour-washing of latrines and urinal:-

The walls ceilings and partition 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 disinfectant at least once in every period of four months.

49. Construction and maintenance of drains:

All drains carrying waste or sullage water shall be 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.

50. Water taps on latrines:-

Water taps, conveniently accessible, shall be provided in or near such latrine accommodation. There shall be at least one tap for every ten latrines or part thereof. The water taps shall be connected to the municipal water supply or to an overhead storage tank of sufficient capacity, so that water is

available from the taps during all hours when the workers are in the factory.

Rules 51 to 53 Prescribed Under Sub-sec. (2) of Sec. 20.

51. Number and location of spittoons:-

The number and location of the spittoons to be provided shall be to the satisfaction of the inspector. Such spittoons shall be placed on a stand or a bracket 91.4 centimeters high.

52. Type of spittoons:-

The spittoons shall be of either of the following types:-

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

53. Cleaning of spittoons:-

The spittoons mentioned in clause (a) of Rule 52 shall be emptied, cleaned and disinfected at least once every day; and the spittoons mentioned in clause (b) of Rule 52, 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-sec. (2) of Sec. 21.

54. Further safety precautions:-

(1) Without prejudice to the provisions of sub-sec. (1) of Sec. 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.

¹[(2) This Rule shall come into force in respect of any class or description of factories, where machines noted in the said Schedules are in use, on such date as the State Government may by notification in the Official Gazette, appoint in this behalf.]

Footnote:

1. Rule came into force w.e.f. 20.12.1955, vide G.N.L and H.D. 44/48, dt. 20.12.1950

¹[Schedule I]

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 or processing of textile other than jute textiles. The Schedule shall not apply to machinery in factories

engaged exclusively in the manufacture of synthetic fibres.

2. Definitions:-

For the purpose of the Schedule:-

- (a) "Calender" means a set of heavy rollers mounted on vertical side frames and arranged to pass cloth between them. Calenders may have two to ten rollers, or bowls, some of which can be heated;
- (b) "Embossing Calender" means a calender with two or more rolls, one of which is engaged for producing figures of various kinds of 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 sliver. Cards of different types are the revolving flat card, the roller and clear card, etc;
- (d) "Card clothing" means the material with which the surfaces of the cylinder, doffer, flats etc. of a card are covered and consists of a thick foundation material made of, either textile fabrics through which are pressed many fine closed spaced, specially bent wires, or mounted raw toothed wire;
- (e) "Comber" means a machine for combing fibres cotton wool, etc. The essential parts are device for feeding forward a fringe of fibres at regular intervals and an arrangement of combs or pins, which, at the right time, pass through the fringe. All tangled fibres, short fibers and nipe are removed and the long fibres are laid parallel;
- (f) "Combing machinery" means a general classification of machinery including combers, silver lap machines, ribbon lap machines and gill boxes, but excluding cards.
- (g) "Factory Staple cutter" means a machine consisting of one more rotary blades used for the purpose of cutting textile fibres into staple lengths.
- (h) "Garnet machine" means any of a number of type of machines for opening hard twisted waste of wool, cotton, silk, etc. Essentially, such machines consist of a licker in one or more cylinder, each having a competent worker and stripper rolls and a fancy roll and defer. The action of each machines is somewhat like that of a wool card, but it is much more severe in that the rolls-are covered with garnett wire instead of card clothing.
- (i) "GUI box" means a machine used in the worsted system of manufacturing yarns. 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 prevents the setting in motion of dangerous part of a machine or the machine itself while the guard cover or door 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 tapper" means a machine or a part of machine used to prepare laps for feeding a

cotton comb; purpose is to provide a uniform lap in which the fibres have been straightened as much as possible;

- (n) "Silver lapped" means a machine or a part of a machine in which a number of parallel card silvers are drafted slightly, laid side by side a compact sheet, and wound into a cylindrical package;
- (o) "Loom" means a machine for affecting 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 headless and reeds. The filling is shot across in a shuttle and settled in place by reeds and slay, and the fabric is wound on a cloth beam;
- (p) "Starch mangle" means a mangle that is used specifically for starching cotton goods. 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 calender 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. Provided to safeguard against danger, is open or;
- (r) "Mule" means a type of spinning frame-having a head stock and a carriage as its two main sections. The head stock is stationery. 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 nickers. Intermediate pickers, finishers pickers, single process pickers multiple pickers, willow machines, card and picker waste cleaners, thread extractors, shredding machines, roving waste openers. Shoddy pickers, baird breakers feeders, vertical openers, lattice cleaners, horizontal cleaners, and any similar machinery equipped with either cylinders, screen section, calender section, rolls or batters used for the preparation of stock for further processing;
- (u) "Paddle means" a trough for a solution and two or more squeeze rolls between which cloth passes after being passed through a mordant or dry bath;
- (v) "Plating machine" 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 down, around the lower part of the perimeter of which is placed a series of engraved colour roller (each having a color through), a furnisher roller, doctor blades, etc. The machine is used for printing fabrics;
- (x) "Continuous bleaching range " means a machine for bleaching of cloth in rope or open width form the following arrangement. The cloth, after wetting out. pass through a squeeze roll into a saturator containing a solution of caustic soda and then to an enclosed J-Box. A V-shaped arrangement is attached to the front part of the J-Box for uniform and rapid saturation of the cloth with steam before it is packed down in the J-Box. The cloth in a single strand rope form, passed 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 scouring action. It then passes a series of washers with a squeeze roll in between. The cloth then passes through a second set of saturator, J-box and washer, where it is treated with the peroxide solution. By slight modification of the form of the unit, the process can be applied to open-width cloth

- (y) "Mercerizing range" means a 3-bowl mangle, a tenter frame, and a number of boxes for washing and scouring. The whole set up is in a straight line and all parts operate continuously. The combination is used to saturate the cloth with sodium hydroxide, stretch it while saturated, and washing out most of the caustic before releasing tension;
- (z) "Sanforizing machine" means a machine consisting of a large steam-heated cylinder, and endless, thick, woolen felt which it in close contact with the cylinder for most of its perimeter and an electrically heated shoe which process 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 ladder blade. There may be from one to six such rollers on a machine;
- (bb) "Singer machine" means a machine which comprises of a heated roller, plate, or an open gas flame. The cloth or yarn is rapidly passed over the roller or the plate or through the open gas flame to remove fuzz or hairiness by burning;
- (cc) "Slasher" means a machine used for applying a size mixture to warp 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 and 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 salvages 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, specially, 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 locking device.
- (2) Stopping and starting handles or other controls shall be of such design and so positioned as to prevent the operator's hand or fingers from striking against any moving part or any other part of the machine.
- (3) All belts, pulleys, gears, chains, 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. Openers 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 a manner that it cannot be removed without the use of hand tools.

(2) The feed rolls on all opening and picking machinery shall be covered with a guard designed to prevent the operator from reaching the nip while the machinery is in operation.

(3) The lap-forming rollers shall be fitted with a guard or cover which shall prevent access to the nip at the intake of the lap roller and fluted as long as the weighted rack is down. The guard or cover shall be so locked that it cannot be raised until the machine is stopped, and the machine cannot be started until the cover or guard is closed :

Provided that the foregoing provision shall not apply to the machines equipped with 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 interlocking arrangement which shall prevent the door being opened until the cylinder has ceased to revolve and shall render it impossible to restart the machine until the door has been closed :

Provided that the latter requirement in respect of the automatic locking device shall not apply while stripping or grinding operations are carried out:

Provided further that stripping or grinding 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-sec. (1) Sec. 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. Garnett machines:-

(1) Garnett licker-ins shall be enclosed.

(2) Garnett fancy rolls shall be enclosed by guards. These shall be installed in a way that keeps worker rolls reasonably accessible, or removal or adjustment.

(3) The under side of the garnett shall be guarded by a screen mesh or other form of enclosures to prevent access.

7. Gill boxes :-

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

(2) All nips of In-running rolls shall be guarded by suitable nip guards conforming to the following specifications:

Any opening which the guard may permit when fitted in position shall be so restricted with respect to the distance of the opening from any nip point through that opening and in any circumstances the maximum width of the opening shall not exceed the following:

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

8. Silver and ribbon tappers (cotton):-

The calender 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 Inter-locking arrangement.

10. Spinning mules:-

Wheels on spinning mule carriages shall be provided with substantial wheel guards; extending to within 6 mm of the rails.

11. Warpings:-

Swiveled double-bar shall be installed on all warpings operating in excess of 410 meters/min. These gates shall have interlocking arrangement, except for the purpose of inching or jogging : Provided that the top and bottom bars of the gate shall be at least 1.05 and 0.53 meters high from the floor or working platform, and the gate shall be located 38 mm from the vertical lamination to the beam-head.

12. Slashers:-

(1) Cylinder dryers: -

- (a) All open nips of in-running rolls shall be guarded by nip-guards conforming to the requirements in Paragraph 7.
- (b) When slashers are operated by control levers, these levers shall be connected to a horizontal bar of 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, the 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 points 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 guards conforming to the requirements in paragraph 7(2).
 - (b) When slashers are operated by control levers, these shall be connected to a horizontal bar or treadles located not more than 170 cm above 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 centers.

13. Looms:-

- (1) Each loom shall be equipped with suitable guards designed to minimize 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 kiers, tanks, and other containers:-

- (1) Each valve controlling the flow of steam, injurious gases or liquids into a kiers or any other tank or container into which a person is likely to enter in connection with a process, operation, maintenance or of 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 kiers with him before entering the kiers tank or container.
- (2) Wherever boiling tanks, caustic tanks and any other containers from which liquids which are hot, corrosive or toxic may overflow or splash, are so located that the operator 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 shall not exceed 10mm.

16. Continuous bleaching range (cotton and rayon):-

The nip of in-running rolls on open-width bleaching machine rolls shall be protected with a guard to prevent the worker from being caught at the nip. The guard shall extend across the entire length of the nip.

17. Mercerizing range (piece goods):-

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

(3) A nip guard shall be provided for the in-running rolls of the mangle and washers and the guard shall conform to the requirements in paragraph 7 (2).

18. Tandet frames:-

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

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

19. Paddlers:-

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

20. Centrifugal extractors:-

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

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

21. Squeezer or wringer extractor, water mangle, starch mangle, back

A washer (worsted yarn), crabbing machines, and decating machines :-

All in, running rolls shall be guarded with nip guards conforming to the requirements in paragraph 7 (2).

22. Sanforizing and palmar machine:-

(1) Nip guards 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 shall be fenced by suitable side guards.

(3) A safety trip-rod, cable or wire-center cord shall be provided across the front and back of all palmer cylinders extending the length of the face of the cylinder. 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 be not more than 170 cm. above the level on which the operator stands and shall be readily accessible.

24. Laundry washer tumble or shaker:-

(1) Each drying tumbler, each double cylinder shaker or clothes tumbler and each washing machine shall be equipped with an inter locking arrangement which shall prevent the power operation of the inside cylinder when the outer door on the case on shell is open and which shall from being opened

without shutting off the power and the cylinder coming to a stop. This should not prevent the movement of the inner cylinder by means of a hand operated mechanism or in inching device.

(2) Each closed barrel shall also be equipped with adequate means for holding open the doors or covers of the inner and other cylinder 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 requirements in paragraph 7(2).

(2) The in grated rollers, gears and the large crown wheel shall be guarded.

26. Calendars:-

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

27. Rotary staple cutters:-

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

28. Plating machines. :-

Access to the trap between the knife and card bar shall be prevented by a guard.

29. Hand-baling machine:-

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

30. Flat work ironer:-

Each flat work or collar ironer shall be equipped with a safety bar or the other guard across the entire front of the feed or first pressure rolls so arranged that the striking of the bar or guard by the hand of the operator or the other person shall stop the machine. The guard shall be such that the operator or the other person can not 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.]

Footnote:

1. Subs. by Notfn. dated 15.2.1995

Schedule II

Cotton Gliming

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

Schedule III

Wood-Working Machinery

1. Definitions:-

For the purpose of this Schedule:

- (a) "Wood-working machine" means a circular saw, band saw, planning machine, chain mortising machine or vertical spindle moulding machine operating on wood or cork.
- (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 overhead planning or for thickening or for both operations.

2. Stopping and starting device:-

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

3. Space around machines:-

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

4. Floor:-

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 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 precaution to be observed to secure safe working of the machine.

6. Circular saws:-

Every circular saw shall be fenced as follows: -

- (a) Behind and in direct line with the saw there shall be a riving knife, which shall have a

smooth surface, shall be strong rigid and easily adjustable, and shall also conform to the following conditions :-

- (i) The edge of the knife nearer the saw shall form an arc of a circle having a radius not exceeding the radius of the largest saw used on the bench.
 - (ii) The knife shall be maintained as close as practicable to the saw having regard to the nature of the work being done at the time, and at the level of the bench trade the distance between the front edge of the knife and the teeth of the saw shall be exceed 12.7 millimeters.
 - (iii) For a saw of a diameter of less than 61 centimeters the knife shall extend upwards from the bench table to within 2.5 centimeters of the top of the saw, and for a saw of a diameter of 61 centimeters or over shall extend upwards from the bench table to a height of at least 22.5 centimeters.
- (b) The top of the saw shall be covered by a strong and easily adjustable guard, with a flange at the side of the saw farthest from the fence. The guard, shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.
 - (c) The part of the saw below the bench table shall be protected by two plates of metal or other suitable materials one on each side of the saw: such plates shall not be more than 15.2 centimeters apart, and shall extend from the axis of the saw outwards to a distance of not less than 5.1 centimeters beyond the teeth of the saw. Metal plates if not beaded, shall be of a thickness of at least 2.5 millimeters or If beaded be of a thickness of at last 1.3 millimeters.

7. Push sticks:-

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

8. Band saws:-

Every band saw shall be guarded as follows: -

- (a) Both sides 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 planning machine which is mechanically fed) shall not be used for overhand planning unless it is fitted with a cylindrical cutter block.

(2) Every planning machine used for overhand planning shall be provided with a 'bridge' guard capable of covering the full length and breath of the cutting slot in the bench and so constructed as to be easily adjusted both In a vertical and horizontal direction.

(c) the freed roller of every planing machine used for thicknessing, except the combined machine for overhand planing and thicknessing shall be provided with an efficient guard.

10. Vertical spindle moulding machine:-

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

(2) The wood being moulded at a vertical spindle moulding machine shall, if practicable, be held in 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 guard:-

The guard and other appliances required under this Schedule shall be –

(a) maintained in an efficient state,

(b) constantly kept in position while the machinery is in motion and so adjusted as to enable the work to be done without unnecessary risk.

13. Exemption:-

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

Schedule IV

Rubber Mills

1. Definitions:-

(i) A "Rubber Mill" shall mean machines with rollers used in breaking down, cracking, washing, grating, mixing, refining and warming of rubber or rubber goods.

(ii) A "calender" shall mean machines with rolls used for frictioning, sheeting, coating and spreading of rubber compounds.

2. Installation of machines:-

Rubber mills shall be so installed that the top of the front roll is not less than 96.5 centimeters 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 roller from the normal working position of the operator.

3. Safety devices:-

(i) Rubber mills shall be equipped with

(a) hoppers so constructed or guarded that it is impossible for the operators to come into

contact in any manner with the nip of the rolls; or

- (b) horizontal safety-trip rods or tight wire cable 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. 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 1.8 meters above the floor or working level.

(ii) Calender machines shall be equipped with-

- (a) horizontal safety-trip rods or tight wire across both front and rear, which will, when pushed or pulled, operate instantly to disconnect the power and apply the brake, or to reverse the roll

- (b) safety-trip rods or tight wire cables on calender machines shall extend across the entire length of the face of the roll and shall be located not more than 1.8 meters above the floor or working level;

- (c) on each side of all calenders and near both ends of the face of the rolls there shall be a vertical tight-wire cable connecting with the bar tripping mechanism at the top and fattened to the frame within 30.5 centimeters of the floor. These cables should be positioned at a distance of not less than 2.5 centimeters from calender frame.

4. Maintenances of safety devices :-

Safety-trip-rods and tight wire cables on all rubber mills and calenders shall be examined and tested daily in the presence of the Manager or other responsible persons and if any defect is disclosed by such examination and test the mill shall not be used until such defect has been remedied.

¹[Schedule V]

Centrifugal Machines

1. Definition:-

"Centrifugal machines" include centrifugal extractors, separators and driers.

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, the rotating drum or basket of every centrifugal machine shall be provided with a strong lid. The design and construction of the case as well as the lid should be such that no access is possible to the drum or basket when the lid is closed.

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

4. Breaking arrangement :-

Every centrifugal machine shall be provided with an effective braking arrangement capable of bringing the drum of 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 speed in excess of the manufacturer's rating which shall legibly stamped at easily visible places both on the inside of the basket and on the outside of the machine casing.

6 Exemptions:-

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.

Footnote:

1. Schedule V added by Notification. dt. 15.2.1995.

¹[Schedule 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. Definitions:-

For the purpose of the 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 a 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 mounding, 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 a 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 worker's 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 chuta.

(5) Notwithstanding anything contained in sub-clauses (1) and (2). And automatic or an interlocked guard may be used in place of a fixed guard, but where such guards are used they shall be maintained in an efficient working condition and if any guard develops a defect, the power shall not be operated unless the defect 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, adjust or try out the tools on a power press or install or adjust any safety device thereon, being installation or adjustment preparatory to production of die proving, or carry out an inspection and test of any safety device thereon required by paragraph 8 unless he:-

(a) has attained the age of eighteen years;

(b) has been trained in accordance with sub-paragraph (2), and

(c) has been appointed by the occupier of the factory to carry out those duties in respect of the class or description of power press or the class or description of safety device to which the power press or the safety device" (as the case may be) belongs; and the name of every such person shall be entered in a register in Form No. 8.

(2) The training shall include suitable and sufficient practical instruction in the matters relating 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 power presses and safety device:-

(1) No power press or safety device shall be taken into use in any factory 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 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 preceding period of twelve months.

(3) No power press shall be used unless every device (other than fixed fencing) thereon has within the immediately preceding period of six months when in position on that power press, been thoroughly examined and tested by competent person.

(4) The competent person carrying an examination and test under the foregoing provision 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 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 effecting the safety of the power press or the safety device found at any such thorough examination and steps taken to remedy such defects.

7. Defects disclosed during a thorough examination and test :-

(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 opinion of the competent person carrying out the examination and test, either: -

- (a) the said defect is a cause of danger to workers and in consequence, the power press or safety device (as the case may be) ought not to be used until the said defect has been remedied; or
- (b) the said defect may become a cause of danger to workers and in consequence the power press or safety device (as the case may be) ought not to be used after the expiration of a specified period unless the said defect has been remedied,

such defect shall, as soon as possible after the completion of the examination and test, be notified, in writing by the competent person to the occupier of the factory and, in the case of a defect falling within clause (b) of this sub-paragraph, such notification shall include the period 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 of 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 be used:—

- (a) in the case of defect falling within clause (a) of sub-paragraph (1), until the said defect has been remedied, and
- (b) In the case of defect falling within clause (b) of sub-paragraph (1), after the expiration of the specified period unless 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 device :-

(1) No power press shall be used after the setting, resetting or adjustment of the tool thereon unless a person appointed or authorised for the purpose under paragraph 5 has inspected and tested every safety device thereon which 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 alternation to or disturbance of any safety device on the power press and if, after the adjustment of the tools, the safety device remain, in the opinion of such a person as aforesaid, in efficient working order.

(2) Every power press and every safety device thereon while it is in position on the said power press shall be inspected and tested by a trained person every day.

9. Defects disclosed during an inspection and test:-

(1) Where it appears to any person as a result of any inspection and test carried out by him under paragraph 8 that any necessary safety device is not in 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 paragraph 8, the person carrying out the section 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 infrequency of the processes or for any other reason, all or any of the provision of this schedule are not necessary for the protection of the workers employed on 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 discretion revoke at any time), exempt such factory from all, or any of such provisions subject to such conditions, if any, as he may specify therein.

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

Footnote:

1. Schedule VI added by Notification. dt. 15.2.1995.

¹[Schedule VII]

Shears, Slitters and Guillotine Machines

1. Definitions:-

For the purpose of this Schedule:

- (a) "guillotine" means a machine ordinary equipped with straight, level-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, level-edged blades operating vertically against resisting edges or with rotary, over tapping cutting wheels, and used for shearing metals or non-metallic substances:
- (c) "Slitters" or "slitting machines" means a machine ordinarily equipped with circular disc-type knives, and used for trimming or cutting into metal or non-metallic or for slitting them into narrow strips; for the purpose of this schedule, this term includes bread or other food slicers equipped with rotary knives or cutting discs.

2. Guillotine and. Shears:-

(1) Wherever practicable a barrier metal guard of strength shall be provided at the front of the knife, fastened to the machine frame and shall be so fixed as would prevent any part of the operator's body to such the descending blade from above, below or through the barrier guarddoor 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 shall 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 places would slide and be collected at a safe distance in a manner as would prevent a person at the back from reaching the descending blade.

(3) Power-driver guillotine cutters except continuous feed trimmers, shall be equipped with:—

- (a) starting device 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 shall remove the hands of the operator from the danger zone at every descent of the blade used in conjunction with one-hand starting device which require two distinct of the device to start the cutting motion, and so designed as to return positively to the non-starting position each complete cycle of the knife.

(4) Where two or more workers are employed at the same time on the same power-driven guillotine cutter equipped with two-hand control the device shall be so arranged that each worker shall be required to the 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 shall prevent the machine from operating in the event of failures of the brake when 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 non-metallic 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 as near as practicable to the surface of the material and which may either: -

- (a) automatically adjust themselves to the thickness of the material; or
- (b) be fixed or manually adjusted so that the space between the bottom of the guard and the material shall not exceed 6 mm (1/4 in) at any time.

(2) Portions of blades underneath the tables or benches of slitting machines shall be covered with guards.

4. Index cutters and vertical paper sloters:-

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 cutters:-

Corner cutters, used in the manufacture of paper boxes, shall be equipped with:-

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

6. Band knives:-

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

Footnote:

1. Schedule VII added by Notification. dt. 15.2.1995.

Rules Prescribed Under Sub-Sec. (1) Of Sec. 22 And Sec. 112

55. Register of specially trained adult workers:-

Register of workers attending to machinery as provided in sub-sec. (1) of Sec. 22 shall be in Form No. 8.

¹[55-A. Tight fitting clothing.:-

A worker required to wear tight fitting clothing under sub-sec. (1) of Sec. 22 shall be provided by the occupier with such clothing which consist of at least a pair of closely fitting full pants and closely fitting half slaves shirt or vest. Such clothing shall be returned to the occupier on termination of service or when new clothing is provided such workers shall be paid washing allowance which shall not be less than Rs. 10/- per month.)

Footnote:

1. Subs. by Notification dt. 15.2.1995

56. Belt etc., to be regularly examined:-

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

Rules Prescribed Under Sub-Sec. (2) Of Sec. 23

¹[57. Employment of Young persons on dangerous machines:-

The machines specified in Sees. 28,29, 30 and the following machines shall be deemed to be of such dangerous character that Young persons shall not work on them unless the provisions of sub-sec. (1) of Sec. 23 are complied with: -

- (i) Power presses other than hydraulic presses;
- (ii) Milling machines used in the metal trades;
- (iii) Guillotine machines :
- (iv) Circular saws ;
- (v) Platen printing machines.]

Footnote:

- 1. Subs. by Notification dt. 15.2.1995

Rules Prescribed Under Sub-sec(I) Of Sec.28

58. Exemption of Certain hoists and lifts:-

A register shall be maintained to record particulars of examination of hoists or lifts and shall give particulars as shown in Form No.9

Exemption Under Sub-Sec.(4) Of Sec.28

59. Exemption of Certain hoists and lifts :-

In pursuance of the provisions of sub-sec. (4) of sec.28, in respect of any class of description of hoists or lifts 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 of description of hoists or lift shall not apply.

Schedule

Class I or description of hoist or lift	Requirement II which shall not apply
Hoists or lifts mainly used for raising materials for charging blast furnaces or lime	Sub-sec. (1) (b) in so far as it requires a gate at the bottom landing, sub-sec. (1) (d); sub-sec.(1) (e)
Hoists not connected with mechanical power and which are not used for carrying persons.	Sub-sec.(1) (b) in so far as it requires the hoist way or lift ways enclosure to be so constructed to prevent any person or thing from being trapped between any part of the hoist or lift and any fixed structure: or moving part sub-sec.

Rules Prescribed Under Sub-Section (1) of Section 29

¹[60. Lifting machines, chains, ropes and lifting tackles:-

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

(2) A register in Form 10 containing the particulars, therein specified shall be kept for every examination made under sub-rule (1). The register shall be readily available for inspection.

(3) (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 an automatic jib angle indicator and a table indicating the safe working loads at corresponding indication of the jib or corresponding radii of the load.

(b) A table showing the safe working load of every kind and size of chain, rope or lifting tackle in use, and, in the case of a 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 or lifting tackles are kept in prominent positions on the premises and no rope, chain or lifting tackle not shown in the table shall be used in a factory unless in the case of lifting tackle, the safe working load thereof, or in the case of a multiple sling, the safe working load at different angles of the legs, is plainly marked upon it.

(4) 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. Every such rail or track shall be properly laid and maintained and shall be adequately supported.

(5) All chains and lifting tackle, except a rope sling, shall unless they have been subjected to such other heat treatment as may be approved by the State Government, be effectively annealed under the supervision of a competent person at the following intervals, namely :-

(i) All chains, slings, rings, hooks, shackles/and swivels used in connection with molten metal or molten slag or when they are made on 12.7 millimeters bar or smaller, at least once in every six months.

(ii) All other chains, rings, hooks, shackles, and swivels in general use at least once in every twelve months:

Provided that chains and lifting not frequent use shall subject to the approval necessary and particular of such annealing shall be entered in a register in Form 10.

(6) Nothing in sub-rule (5) shall apply to the following classes of chains and lifting tackle namely :-

(i) Chains 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 pocketed wheels.

(v) Rings, hooks, shackles and swivels permanently attached to pitched chains, pulleys blocks or weighing machines.

- (vi) Hooks and swivles having screw threader parts or ball bearing or other case hardened parts.
 - (vii) Socket shackles secured to wire ropes by white metal capping,
 - (viii) Bordeaux connections.
 - (ix) Any chain or lifting tackle which has been subjected to the heat treatment known as "normalising" instead of annealing. Such chains and lifting tackle shall be thoroughly examined by a competent person at least once in every twelve months, and particulars of such examination shall be entered in the register in Form 10
- (7) All lifting machines, chains, ropes and lifting tackle except a fibre rope or fibre sling, which have been lengthened, altered or repaired by welding or otherwise, shall not be used again, unless it is adequately tested and examined by a competent person and certified in writing by him to be in order.]

²[(8) No person who has not completed eighteen years of age and no adult who is not sufficiently trained in the working of lifting machines and acquainted with the hazzards of the machines shall be employed as a driver of a lifting machine whether driven by mechanical power or otherwise, or to give signals to a driver.]

Footnotes:

1. Subs. vide G.N.L & S.W.D No. FAC 1157, dt. 27.10.1958 .
2. Added vide G.N..L.D. No. FAC 1160/31350, dt. 4th July, 1961.

¹**[60-A. Passage ways for cranes:-**

(1) To provide access to rail tracks of over head travelling cranes suitable passage ways of at least 50 cm width with toe boards and double hand rails 90 cm. high shall be provided along side, and clear of the rail tracks of over head travelling cranes, so that no moving part of the crane can strike persons on the way, 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 rails tracks.

(2) The State Government may in writing exempt any existing factory from the provisions of sub-rule (1) if the construction of the factory is such as to make it impossible to provide such a passage way.]

Footnote:

1. Rule 60-A inserted vide G.N.E. and L.D. No. FAC 1060/13224-1. dt. 21st January. 1960.

Rules Prescribed Under Sub-Sec. (2) Of Sec. 31 and Sec. 112 3

¹**[61. Pressure vessels or plant:-**

(1) Interpretation:-

In this rule:-

- (a) "design pressure" means the maximum pressure that a pressure vessels or plant is designed to withstand safety when operating normally;
- (b) "maximum permissible working pressure" means 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 so used to contain a gas vapour or liquid under pressure greater than the atmospheric pressure and includes the pressure vessels.
- (d) "pressure vessel" means a vessel that may be used for containing, storing, distributing, transferring, distilling, processing or otherwise handling any gas, vapour or liquid under pressure greater than the atmospheric pressure and includes any pipeline fitting or other equipment attached thereto or used in connection therewith.

(2) Exception: -

Nothing in this rule shall apply to:-

- (a) Vessels made of ferrous materials having an internal operating pressure not exceeding 1 kilogram per square centimeter;
- (b) steam boilers, steam and feed-pipes and their fittings coming under the purview of the Indian Boilers Act. 1923;
- (c) Metal bottles or cylinders used for storage or transport of compressed gases or liquefied or dissolved gases under pressure covered by the Gas Cylinder Rules, 1981 framed under the Indian Explosives Act, 1884;
- (d) Vessels in which internal pressure is due solely to the static heat or liquid;
- (e) Vessels with a nominal water capacity not exceeding 500 liters connected in a water-pumping system containing air that is compressed to service as cushion.
- (f) Vessels for unclear energy application;
- (g) refrigeration plant having a capacity of 3 tons or less or refrigeration's in 24 hours; and
- (h) working cylinders of steam engines or prime movers and steam trapes; 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 machines provided maximum working pressure of the air receiver does not exceed 1.33 kilogrammes per square centimeter and the capacity of 85 litres; 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 heat only; and hydraulically operating other than any cylinders communicating with an air loaded accumulator.

(3) Design and construction:-

Every pressure vessels or plant used in 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 vessels 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 the 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 vessels shall not be exceeded. It shall be set to operate at a 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 gauge 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 gauge for checking the accuracy of the pressure gauge referred to in clause (b) of this sub-rule;
- (d) a suitable stop 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;
- (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 relieving device, the pressure gauge 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 vessel served by the same pressure lead, only set of such mountings need be fitted on the pressure lead immediately adjacent to the range of pressure vessels provided they can not 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 fitted with a suitable pressure reducing valve or other suitable automatic device to prevent the maximum permissible working pressure of the pressure vessel 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 times the designed 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 repair 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 fitted with water or liquid or is used in service when 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 is lined 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 take 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 of a pressure higher than its design pressure, or the maximum permissible working pressure as shown in the certificate.

(7) In-service test and. examinations:-

(a) Every pressure vessel or plant in service shall be thoroughly examined by a competent person :-

(i) externally, once in every period of six months;

(ii) internally, once in every period of twelve months: -

Provided that if by reason of 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 further 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; and

(iii) hydrostatically tested once in every period of four years :-

Provided that in respect of a pressure vessel or plant with thin walls such as sizing cylinder made of copper or any other non-ferrous metal, periodic test may be dispensed with subject to the condition that the requirement 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 sub-clause (i) of this clause or it owing to its construction and Use a pressure vessel or plant cannot be hydrostatically tested as required in sub-clauses (ii) and (iii) of this clause thorough external examination of the pressure vessel or plant shall be carried out at least once in every period of two years a thorough systematic nondestructive 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.

- (b) The pressure for the hydrostatic test to be carried out for the purpose of this sub-rule shall be 1.25 times the design pressure or 1.5 times the maximum permissible working pressure whichever is less.

(8) Thin walled pressure vessel or plant:-

- (a) In respect of any pressure vessel or plant or thin walls such as seizing cylinder made of copper or any other non-ferrous metal, the maximum permissible working pressure for every year or use after the first five years and no such cylinder shall be allowed to continue to be used for more than twenty years after it was first taken into use.
- (b) If any information as to the date of construction, thickness of walls or maximum permissible working pressure is not available the age of such pressure vessel or plant shall be determined by the competent person in consultation with the Chief Inspector from the other particulars available with the manager.
- (c) Every new and second hand pressure vessel or plant of thin walls to which repair is likely to effect its strength or safety have been carried out, shall be tested before use to at least 1.5 times its maximum permissible working pressure.

(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 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 test or subject to both of these conditions.
- (b) A report of every examination or test carried out shall be completed in Form No. 11 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 specifies 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 condition is 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 laws:-

- (a) The requirements of this rule shall be in addition to and without any prejudice to and not

in derogation of the requirements of any other law in force.

- (b) Certificate or reports of any examination or test of any pressure vessel or plant to which sub-rules (7) to (9) do not apply, conducted or required to be conducted 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.]

Footnote:

1. Subs. by Notification dt. 15.2.1995

61-A. Safety of water sealed gas-holder:-

- (1) The expression "gas-holder" in this rule means a water-sealed gasholder which has a storage capacity of not less than 141.5 cubic meters (5,000 eft.)
- (2) Every gas-holder shall be of good construction, sound material and adequate strength and shall be properly maintained.
- (3) Where there are more than one gas-holder in a factory, every gas-holder shall be marked in a conspicuous position with a distinguishing number or letter.
- (4) Every gas-holder shall be thoroughly examined externally by a competent person at least once in a period of 12 months.
- (5) In the case of a gas-holder of which any lift has been in use for more than 10 years, the internal state of the sheeting shall, within one year of the coming into operation of this rule and thereafter at least at 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 such examination raises a doubt as to the soundness of the internal state of the sheeting an Internal visual examination shall be made.

- (6) All possible steps shall be taken to prevent or minimize ingress of impurities in the gas-holders.
- (7) No gas-holder shall be repaired or demolished except under the direct supervision of a person who by his training and experience and his knowledge of the necessary precautions against risks of explosion and of persons being overcome by gas, is competent to supervise such work.
- (8)
 - (i) All sample discs out under sub-rule (5), shall be kept readily available for inspection.
 - (ii) A permanent register duly signed by the occupier or manager shall be maintained giving the following particulars :-
 - (a) The distinguished number or letter of gas holder marked thereon under sub-rule (3) and the particulars of manufacture i.e. maker's name, date of manufacture, capacity, number of lifts, and pressure thrown by holder when full of gas;
 - (b) The dates of examination carried out as required under sub- rules(4) and (5) above and by whom carried out;

- (c) The methods of examination used;
 - (d) Date of painting;
 - (e) Nature of repairs and names of persons carrying out repairs; and
 - (f) Remarks.
- (iii) The results of examinations by a competent person under sub-rules (4) and (5) shall be in the Form No. 11-A.
 - (iv) A copy of the report in Form No. 11-A shall be kept in the register and both the register and the report shall be readily available for inspection.

¹[61-B. Reaction vessels and kettles:-

(1) This rule applies to reaction vessels and kettles (hereinafter referred to as "reaction vessels") which normally work at the pressure not above the atmospheric pressure but in which there is likelihood of pressure being created above the atmospheric pressure due to reaction getting out of control or any other circumstances.

(2) In the event of the vessel being heated by electrical means, a suitable control device shall be provided to prevent the temperature exceeding the safe limit.

(3) Where steam is used for heating purposes in reaction vessel, it shall be supplied through a suitable automatic device to prevent the maximum permissible steam pressure being exceeded unless the pressure of the steam in the supply line itself can not exceed the said maximum permissible pressure.

(4) A suitable safety valve or require disc of adequate size and capacity shall be provided to effectively prevent the pressure being built up in the reaction vessel beyond the safe limit. Effective arrangement shall be made to ensure that the released gases, fumes, vapours, liquids or dusts, as the case may be, are led away and disposed of through suitable pipes without causing any hazard flammable gases or vapours are likely to be vented out from the vessel the discharge end shall be provided with a flame arrester.

(5) Every reaction vessel shall be provided with a pressure gauge having an appropriate range.

(6) In addition to the device as mentioned in the above clauses, means shall be provided for automatically stopping the feed in to the vessel as soon as process condition deviates from the normal limit to an extent which can be considered as dangerous.

(7) Where necessary, an effective system for cooling, flooring or blanketing shall be provided for the purpose of controlling the reaction and process conditions within the safe limits of temperature and pressures.

(8) All automatic auditory and visual warning devices shall be provided for clear warning whenever process conditions exceed the present limits. This device wherever possible shall be integrated without automatic process correction system.

(9) A notice pointing, out the possible circumstances in which pressure above atmospheric pressure may be built up in the reaction vessel, the dangers involved and the precautions to be taken by the operators shall be displayed at the conspicuous place near the vessel]

Footnote:

1. Subs. by Notfn. dt. 15.2.1995

Rule Prescribed Under Sub-sec. (2) of Sec. 34

62. Excessive weights:-

(1) 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 maximum limit in weight set out in the following schedule: -

Schedule I

Persons	Maximum weight of material, article, tool or appliance
¹ [(a) Adult female	50 Kilograms]
(b) Adolescent male	29.5 Kilograms
(c) Adolescent female	20.4 Kilograms
(d) Male child	15.9 Kilograms
(e) Female child	13.6 Kilograms

(2) No woman or young person shall engage, in conjunction with others in lifting, carrying or moving by hand or on head, any material article, tool or appliance if the weight thereof exceed the lowest weight fixed by the Schedule to sub-rule(I) for any of the persons engaged, multiplied by the number of the persons engaged.

Footnote:

1. Subs. by Notfn. dt. 15.2.1995

Rule Prescribed Under Sec. 35

63. 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 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 off in the course of the process.
- (b) The processes specified in Schedule II annexed hereto being processes which involve risk of injury to the eye by reason of exposure to excessive light.

¹[Schedule-1]

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

(2) Dry grinding of surface of metal by applying them by hand to a wheel, disc or driven by mechanical Power and of surface of metal 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 saw driven by mechanical power or by means of an abrasive cutting off wheel or disc driven by mechanical powers.
- (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 process.
- (5) Drilling by means of portable tools, where particles or fragments are liable to be thrown off towards the face the operator in the course of the process.
- (6) Welding and cutting of metals by means of an electric, oxy-acetylene or similar process.
- (7) Hot felling of steel castings by means of a flux injected burner or air torch, and de-seaming of metal.
- (8) Felling of metal castings involving the removal of metal-including runners, gates and risers, and removal of any other material during the course of such felling.
- (9) Chipping of metal, and chipping, knocking out, cutting out or cutting off of cold rivets, bolts, nuts, lugs, pins, collars or similar articles from 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 portable tool driven by mechanical power.
- (10) Chipping or surfing of paint, scales, 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) Rounding 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 powers hammers used in either case for the manufacture of forgings, and work by any person and 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 operation, maintenance or dismantling of plant or any part of plant, being plant or part of 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 a injury to eyes from particles or fragments thrown of during the course of the process.

Footnote:

1. Subs, by Notfn. KHR/2001/109/ILO/1099/CM/18/M () dt. 7.6.2001 Guj. Govt. Gaz., Pt. 1V-A dt. 14.6.01 p.431.

Schedule-II

- (1) Welding or cutting of metals by means of an electrical, oxy- acetylene or similar process.
- (2) All work on furnace where there is risk of exposure to excessive light to infra-red radiations.
- (3) Process such as rolling, casting or forging of metals, where there is risk of exposure to excessive light or infra-red radiations.
- (4) Any other process wherein there is a risk of injury to eyes from exposure to excessive light or infra-red or ultraviolet radiations.)

Rule Prescribed Under Sub-section (6) of Sec. 36

64. 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 risks of the persons being overcome thereby shall, unless there is other effective means of egress, be provided with 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 40.6 centimeters long and 30.5 centimeters wide;
- (b) in the case of a circular shape, be not less than 40.6 centimeters in diameter.

Exemptions under Sub-sec. (5) of Sec. 37

65. Exemptions. :-

The requirements of sub-sec. (4) of Sec. 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 gas-holder 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 gas-holder 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 town 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 anything 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 two persons (including those carrying out the operations) experienced in work on gas mains and over 18 years of age shall be present during the operation;
- (iv) The site of the operation shall be free from inflammable or explosive gas or vapour:
- (v) Where acetylene gas is used as source of heat in connection with an operation it shall be compressed and contained in a porous substance in a 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, subject to the following conditions:—
 - (i) The only oil contained in the tank shall have a flash point of not less than 150°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 leakage in inflammable quantities, and (b) which is not less than 30.5 centimeters 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 carried out by experienced operatives under the constant supervision of a competent person.

Rules Prescribed Under Sub-Sec. (1) Of Sec. 38

66. Means of escape in case of fire:-

- (1) Every factory shall be provided with adequate means of escape in case of fire for the persons employed therein and without prejudice to generality of the foregoing :-
- (a) Each room of a factory building shall in relation to its size and the number of persons employed in it be provided with an adequate number of exits for use in case of fire though not necessarily confined to such use, so positioned that each person will have a reasonably free and unobstructed passage from his work-place to an exit;
 - (b) No exist intended for use in case of fire shall be less than 91.4 centimeters in width nor less than 2 meters in height:
 - (c) In the case of a factory building or part of a factory building more than one storey and in which less than twenty persons work at any one time, there shall be provided at least one substantial stairway permanently constructed either inside or outside the building and which affords direct and unimpeded access to ground level ;
 - (d) In the case of a factory building or part of a factory building in which twenty or more persons work at any one time above the level of the ground floor, or wherein explosive or highly inflammable materials are used or stored or which is situated below ground level, the means of escape shall include at least two separate and substantial stairways

permanently constructed either inside or outside the building and which afford direct and unimpeded access to ground level;

- (e) Every stairway in a factory which affords a means of escape in case of fire shall be provided with a substantial handrail which if the stairway has an open side shall be on that side, and if the stairway has two open sides such handrail shall be provided on both sides.

(2) In the case of a building constructed or converted for use as a factory after the date of the passing of the Act, the following additional requirements shall apply: -

- (a) At least one of the stairways provided shall be of fire-resisting materials;
- (b) Every hoist-way or lift-way inside a factory building shall be completely enclosed with fire-resisting materials and all means of access to the hoist or lift shall be fitted with doors of fire-resisting materials:

Provided that any such hoist way or lift-way shall be enclosed only at the top by some material easily broken by the fire or be provided with a vent at the top

- (c) No fire escape stair shall be constructed at an angle greater than 45° from the horizontal;
- (d) The fire escape stair shall be within 45.7 meters along the line of travel from any part of the floor from which it is meant to provide escape;
- (e) No stairway shall be less than 91.4 centimeters in width.

¹[66-A Fire protection:-

(1) Processes, equipment, plant, involving serious explosion and serious fire hazards:-

- (a) All processes, storage, equipments, plant etc. involving serious explosion and flash fire hazard shall be located in segregated buildings 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 shall be located in buildings or work places separated from one another by wall 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 and similar equipment involving a serious fire risk should be provided with flame-arresting or automatic fire extinguishing appliances, or fire resisting dampers electrically inter locked with heat sensitive/smoke detectors and the air-conditioning plant system.
- (e) In all work places having serious fire or flash fire hazards, passages between machines, installation or piles or material should be at least 90 cm wide for storage piles. The clearance between the ceiling, and the top of the pile should not be less than 2 m.

(2) Access for the fighting:-

- (a) Buildings and plants shall be so laid out and roads, passage ways etc. so-maintained as to permit unobstructed access for the fighting.
- (b) Doors and window opening shall be located in suitable positions on all external walls of the building to provide easy access to the entire area within the building for the fighting.

(3) Protection against lightening :-

Protection from lightening shall be provided for: -

- (a) building in which explosive or highly flammable substances are manufactured, used, handled or stored;
- (b) storage tanks containing oils, paints, or other flammable liquids;
- (c) grain elevators;
- (d) buildings, tall chimneys or stacks where flammable gases, fumes, dust or plant are likely to be present;
- (e) sub-station buildings and out-door transformers and switch yards.

(4) 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 precautions shall be adopted for prevention of accumulation of static charges to a dangerous extent ;
- (c) workers shall wear shoes without 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 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 ignition 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.

(5) 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. The material susceptible to spontaneous ignition should be stored in dry condition and should be in heaps of such capacity and separated by such passage which shall prevent fire. The materials susceptible to ignition and stored in the open shall be at a distance not less than 10 meters away from process or storage buildings.

(6) 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 substance, furnaces or hot processes. The room where such cylinders are stored shall have adequate ventilation.

(7) Storage of flammable liquids:-

- (a) The quantity of flammable liquids in any work room shall be 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 litres of flammable liquids having a flash point of 210 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 remainder of the building by fire walls and self closing fire doors.
- (c) Large quantities of such liquids shall be stored adequately ventilated building of fire resisting construction or in storage tanks, preferably under-ground 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, dumps or drains and to confine any escaping liquid within safe limits.

(8) 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 or flammable dust, gas, fume or vapour to an extent which is likely to be dangerous.
- (b) No waste material of a flammable nature shall be permitted to accumulate on the floors and shall be removed at least once in a day or in every shift, and more often possible. Such material shall be placed in suitable metal containers with covers wherever possible.

(9) Fire exists:-

- (a) In this rule:—
 - (i) "horizontal exit" means an arrangement which allows alternative 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 reach an exit.
- (b) An exist may be a doorway, corridor, passageway to an external stairway or to a verandah or to an internal stairway segregated from the rest of building by the fire resisting walls which shall provide continuous and protected means of egress to the exterior of a building or to an exterior open space. An exit may also include a horizontal exit leading to a 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 exists sufficient 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 exists shall be marked in a language understood by the majority of the workers.

- (g) Iron rung ladders or spiral staircases shall not be used as staircases.
- (h) 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 of fire.
- (i) All exits shall provide continuous means of egress to the exterior of a building or to an exterior open space leading to a street.
- (j) Exits shall be so located that the travel distance to reach at least one of them on the floor shall not exceed 30 metres.
- (k) In case of those factories where high hazard materials are stored or used, the travel distance to the exit shall not exceed 22.5 metres 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.
- (l) Wherever more than one exit is required for any room space or floors, exit 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.
- (m) The unit of exit width used to measure capacity of any exit shall be 50 cm. A clear width 25 cm. shall be counted as an additional half unit. Clear width of less than 25 cm shall not be counted for exit width.
- (n) Occupants per unit width shall be 50 for stairs and 75 for doors, (o) 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.
- (p) 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 internal enclosed stairway.
- (q) For every building or structure used for storage only, and every section thereof considered separately shall have access to at least one exit 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 may be normally present, at least two separate means of exit shall be available, as remote from each other as practicable.
- (r) Every storage area shall have access to at least one means of exit which can be readily opened.
- (s) Every exit doorway shall open into an enclosed stairway, a horizontal exit on a corridor or passageway providing continuous and protected means of egress.
- (t) No exit doorway shall be less than 100 cm. in width doorways shall be not less than 200 cm. in height.
- (u) 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.
- (v) An exit door shall not open immediately upon a flight of stairs. A landing at least 1.5 m X 1.5m in size shall be provided in the stairway at each doorway. The level of landing shall be the same as that of the floor which it services.

- (w) The exit doorways shall be open able from the side which they serve without the use of a key.
- (x) Exit corridors and passageways shall be of a width not less than the aggregate required width of exit doorways leading from there in the direction of travel to the exterior.
- (y) Where stairways discharge through corridors and passageways, the height of the corridors and passageways shall not be less than 2.4 metres.
- (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 of 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 an 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 of 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 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 area served, allowing not less than 0.3 square meter per person. The refuge area shall be provided with exits 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 1 in 8 slop, shall be provided. For this purpose steps shall not be used.
- (ll) Doors in horizontal exits shall be openable at all times.
- (mm) Ramps with a slope of not more than 1 in 10 be substituted for the requirements of staircase. For all slopes exceeding 1 in 10 and wherever the use is 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-storey buildings where the entire area is undivided and all parts thereof are clearly visible to all occupants.

(10) 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 type of first aid fire fighting equipment 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, textiles, paper, rubbish and the like.
 - 1. "Light hazard":- Occupancies like offices, assembly halls, canteens, rest-rooms, ambulance rooms and like;
 - 2. "Ordinary hazard":- Occupancies like saw mills, carpentry shop, small timber yards, book binding shop, 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 F 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 for "light hazard" occupancy shall be as given in Schedule 1. For "ordinary hazard or extra hazard" occupancies equipment as given in para 12 shall be provided in addition to that given in Schedule 1.
- (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 in similar in shape and appearance and 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 shall 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 buckets 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 number by which it shall be referred to in the records. The following details shall be painted in white paint on the body of each equipment.
 - 1. Serial Number:

2. Date of last refilling: and 3 Date of last inspection.

- (j) First-aid 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 outside the building, shall be under sheds or covers.
- (k) All extinguishers shall be thoroughly cleaned and re-charged immediately after discharge, sufficient refill material shall be kept readily available for this purpose at all times.
- (l) All first-aid fire fighting equipment shall be subjected to 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.

(11) Other fire-fighting arrangements:-

- (a) In every factory, adequate provision of water supply for the fire fighting shall be made and where the amount of water, required in litres per minute, as calculated from the formula $A + B + C + D$ divided by 20 is 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 meters of all floors including galleries in all buildings of the factory;

B = the total area in square meters of all floors and galleries including open spaces in which combustible materials are handled or stored;

C = the total area in square meters of all floors of all building 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 area under B, C, or D are 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 kilometers 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 (a).

- (b) Each trailer pump shall be provided with equipment as per Schedule II appended to this rule. Such equipment shall conform to the relevant Indian Standards.
- (c) Trailer pumps shall be housed in a separate shed which shall be sited close to a principal source of water supplies in the vicinity of the main risk of the factory.
- (d) In factories where the area 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 every 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 litres whichever is less,

shall be in the form of static tanks of adequate capacities (not less than 450,000 litres, Each distributed round the factory with due regard to the potential fire risks in the factory.

- (f) 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 litres per minute at a pressure of not less than 7 kilograms per square centimeter.
- (g) All trailer pumps including the equipment provided with them and the vehicles for towing them shall be maintained in good condition and subjected to periodical inspection and testing as required.

(12) 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-rules (10) and (11) shall be in charge of a trained responsible person.
- (b) Sufficient number of persons shall be trained in the proper handling of fire fighting equipment as referred to in clause (a) and their use against the type 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 other. Such persons shall be provided with clothing and equipment including helmets, belts and boots, preferably gumboots. Wherever vehicles with towing attachments are to be provided as required in clause (d) of sub-rule (11), 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 as often as necessary and at least once in every period 2 months.

(13) Automatic sprinklers and fire hydrants shall be in addition and not in substitution of the requirements in sub-rules (10) and (11).

Footnote:

- 1. Ins. by Notfn. dt. 15.2.1995

Schedule I

First-Aid Fire Fighting Equipments

- (1) The different types of fires and first aid fire fighting equipments suitable for use on them are as under:

Class Of Fire	Suitable Types Of Appliances
A. fires in ordinary combustibles (wood, vegetable, fibres, paper & the like)	Chemical Extinguishers of soda acid, Gas/Expelled water and anti- freeze types, and water buckets.
B. Fires inflammable liquids, paints, grease, solvents and the likes,	Chemical Extinguishers of foam. Carbon dioxide and dry powder types and sand buckets.
C. Fires in gaseous substances under pressure,	Chemical Extinguishers of carbon dioxide and dry powder types.

D. Fires in Reactive Chemicals, active metals and the like.	Special type of dry powder extinguishers and / sand buckets.
E. Fires in electrical equipment, carbon dioxide and dry powder type and sand buckets.	Chemical extinguishers of carbon dioxide and dry powder type and sand buckets.

(2) One 9 litres water-bucket shall be provided for every 100 Sq.m. of the floor area or part thereof and one 9 litres water type extinguishers shall be provided to six buckets or part thereof with a minimum of one extinguisher and two buckets per compartment of the building. Buckets may be dispensed with, provided supply of extinguishers is double than that indicated above.

(3) Acceptable replacement for water buckets and water type extinguishers in occupancies where class B fires are anticipated, are as under:

Acceptable Replacement	For one Bucket	Buckets of Water	For three Buckets	Water type extinguishers for each 9 ltrs. extinguishers.
1	2	3	4	5
Dry Sand Carbon Dioxide extinguishers	1 Bucket kg-		3 Buckets 9 kg. (In not less than 2 extinguishers	9 kg.
Dry Powder Foam extinguishers	2 kg. 9 litres	— 9 litres	5 kg. 9 litres	5 kg. 9 litres

(4) The following provisions shall be complied with if Class E fires are anticipated:

- (a) For rooms containing electrical transformers, switchgears, motors and/or electrical apparatus only, not less than (two) 2 kg. Dry powder or Carbon Dioxide type extinguishers shall be provided within 15 m. of the apparatus.
- (b) Where motors and/or other electrical equipments are installed in rooms other than those containing such equipment only, one 5 kg. Dry powder Carbon dioxide Extinguisher shall be installed within 15 m. of such equipment in addition to the requirements mentioned at (3) and (4) above. For this purpose the same extinguisher may be dammed to afford protection to all apparatus within 15m. thereof.
- (c) Where electrical motors are installed on platform, one 2 kg. Dry powder or Carbon Dioxide type extinguisher shall be provided on or below each platform. In case of a long platform with a number of motors, one extinguisher shall be acceptable as adequate for every 3 months on the common platform. The above requirements shall be in addition to the requirements mentioned at item (3) & (4) above.

(5) The First-aid fire fighting equipments shall be so distributed over the entire floor area that a person has to travel not more than 15 m. to reach the nearest equipment.

(6) Selection of sites for the installation of first-aid fire fighting equipment

- (a) while selecting sites for first aid fire fighting equipment shall be given to the nature of the risk to be covered. The equipments shall be placed in conspicuous positions and shall be readily accessible for immediate use in all parts of the occupancy. It shall always be borne in mind while selecting sites that first aid fire fighting equipments are intended only for use on incipient fires and their values may be negligible if the fire is not extinguished or brought under control in the early stages.

- (b) buckets and extinguishers shall be placed at convenient and easily accessible locations either on hangers or on stands in such a way that their bottom is 750 mm above the floor level.

(7) The operating instructions of the extinguishers shall not be defaced or obliterated. In case the operating instructions are obliterated or have become illegible due to passage of time fresh transfers of the same shall be obtained from the manufactures of the equipment and affixed to the extinguishers.

Schedule II

Equipments To Be Provided With Trailer Pump

For light trailer pump of a capacity of 680 litres/minute

- 1 Armored suction hose of 9 meters length, with wrenches
- 1 Metal suction strainers
- 1 Basket strainer
- 1 Two-way suction collection head
- 1 Suction adapter
- 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 Standpipe with blank cap
- 1 Hydrant key
- 4 Collapsible canvas buckets
- 1 Fire hook (prevent or) 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 of rubber gloves

For large trailer pump of a capacity of 1800 liters/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 adapter
- 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 nozzles
- 2 Standpipe with blank caps
- 2 Hydrant keys
- 6 Collapsible canvas buckets
- 1 Coiling hook (preventer) with cutting edge
- 1 50 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 Hurricane 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 equipments for light trailer pump or large trailer pump, as the case may be.]

Rule Prescribed Under Sub-Sec. (7) of Sec. 38

67. Means of escapes for cotton ginning factories. :-

Notwithstanding anything contained in Rule 66 cotton ginning factories shall be provided with at least two suitable earthen ramps or two flights or stairs made of brick work or other fire resisting material.

Rules Prescribed Under Sec 41

68. 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. Ladders 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 resting on the floor.

¹68-A. Protection of worker 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 authorized 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 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 shorts 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.]

Footnote:

1. Ins. by Notfn. dt. 20.12.1980

¹[68-B. Quality of personal protective equipments.:-

All personal protective equipments provided to workers as required under any of the provisions of the Act or Rules shall conform to the relevant Indian Standards, if any.

Footnote:

1. Ins. by Notfn. dt. 20.12.1995

68-C. Precautions and examination of machine. :-

(1) The following precautions shall be taken when fabrics are processed on polymerising or curing machine for fixing prints by emulsion Technique, namely

- (i) Printed fabrics shall be thoroughly dried by passing them over cylinders or thoroughly dried by other equally effective means, before the same are allowed to pass through the polymerising machine.
- (ii) The exhaust flap or damper shall be provided with a hold or opening, so that at least 2/3 of it is always open.

- (iii) Infra-red ray heaters of the machine shall be cut off while running the prints.
- (iv) The electrical heater shall be connected to a separate circuit and shall be provided with an isolated switch so as to ensure that it is completely cut off in an emergency.
- (v) The electrical heater shall be so located that if there is any dropping of the solvent due to condensation, it does not directly come in contact with heaters.
- (vi) The drive of the exhaust fan shall be interlocked with the main drive of the machine in such a way that if the exhaust motor stops, the machine including all heating devices, shall also stop.
- (vii) The electrical heaters shall have the mostates to regulate the temperature, so that the heater shall be automatically cut off, if the temperature rises above the pre-set valve.
- (viii) Adequate flaps shall be provided on top of the machine which can open and let off the fumes outside the work-room in case of an explosion or in case any pressure is built up.
- (ix) Filter gauge shall be cleaned at least once a week.
- (x) Exhaust dust shall be cleaned at least once a week.
- (xi) Tension of the V-Belt drive of the fans shall be checked every week.

(2) The machine shall be examined under the direct supervision of a responsible person, designated by the occupier or Manager, who by his experience and knowledge of necessary precautions, against risk of explosion, is fit to supervise such work.

(3) A register shall be maintained in which the details of the various checks carried under sub-rule (2) shall be entered and every entry made therein shall be signed by the person making the checks.

68-D. Thermic fluid heaters. :-

(1) All heaters shall be of such construction that coils are removable for periodic cleaning, visual inspection and hydraulic test.

(2) Suitable arrangements shall be made for cooling the furnace effectively in case of power failure.

(3) Before restarting the furnace, it shall be effectively purged.

(4) Velocity 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-desecrator tank. The tank shall be located outside the shed where the heater is installed.

(6) Every heater shall be provided with a Photo-register actuated audio visual alarm to indicate flame failure and automatic burner cut off.

(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 minimum.

(8) Where inspection doors are provided on the furnace they shall be interlocked with the burner itself so that they cannot be opened until burner is shut off and furnace is cooled sufficiently.

- (9) All heaters shall also be provided with the following safety devices: -
- (a) level control in the expansion tank;
 - (b) temperature control of thermic fluid;
 - (c) differential pressure switch on the out-left line of the heater tubes; and
 - (d) temperature control device for the fuel oil supply to the burner.
- (10) All devices mentioned in clause (9) shall have interlocking arrangement with burner so that in case or 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 sniffing with low pressure stem or nitrogen for putting out the fire.
- (13) Electronic 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 atleast in every 12 months. The test pressure shall not be less than twice the operating pressure.
- (17) If repairs are carried out to the coil it shall be tested before taking it into use.
- (18) The thermic fluid shall conform to the specifications prescribed by the manufacturers and shall be tested by competent person for suitability at least once in every three months period. Such test shall include test for acidity, suspended matter, ash viscosity and than point.
- (19) Cleaning of the internal surface of the heater or soot and checkup of refractory surface on the inside shall be carried out every month or as often as required depending upon working conditions. The coils shall be removed and surface of the coils cleaned thoroughly once at least in a period of six months.
The burner, nozzles, oil filters and pumps shall be cleaned once a week during the period of use.
- (20) A separate register containing the following information shall be maintained: -
- (a) weekly checks carried confirming the effectiveness of the inter lock;
 - (b) weekly checks confirming that all accessories are in good state of repairs; and
 - (c) information regarding fuel oil temperature, pressure, thermic fluid inlet/outlet pressure and temperature, fuel gas temperature, recorded at 4 hourly interval.
- (21) The heater, when in operation shall always be kept in charge of a trained operator.

68-E. Fragile roots:-

Provision of crawling boards, etc. In any factory, no person shall be required to stand or pass over or work on or near any roof or ceiling which is at a height of more than three meters covered with fragile materials through which he is liable to fall, in case it break or gives way unless

- (a) suitable and sufficient ladders, duck 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.

68-F. Safety Committee. :-

- (1) In every factory wherein 250 or more workers are ordinarily employed, there shall be a Safety Committee.
- (2) The representatives of the management of Safety Committee shall be include: -
 - (a) a senior official, who by his position in the organisation can contribute effectively to the functioning of the Committee, shall be the Chairman;
 - (b) a safety officer and a Factory Medical Officer wherever available and the safety officer in such a case shall be the Secretary of the Committee;
 - (c) a representative each from the production, maintenance and purchase departments.
- (3) The workers representatives on this Committee shall be elected by the workers.
- (4) The tenure of the Committee shall be two 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) Safety Committee shall have the right to be adequately and suitably informed of: -
 - (a) potential safety and health hazards of which the workers may be exposed at workplace;
 - (b) data on accidents as well as data resulting from surveillance of the working environment and the health of workers exposed to substances. So far as the factory is concerned, provided that the Committee undertakes to use the data on a confidential basis and solely to provide guidance and device measures to improve the working environment and the health and safety of the workers.
- (7) Functions and duties of the Safety Committee shall include: -
 - (a) assisting and co-operating with the management in achieving the aims and objectives outlined in the 'Health and safety policy' of the occupier;
 - (b) dealing with all matters concerning health, safety and environment and to arrive at practicable solutions to problems encountered;
 - (c) creating safety awareness amongst all workers;
 - (d) undertaking educational, training and promotional activities;
 - (e) discussing reports on safety, environmental health surveys, safety audits, risk assessment, emergency and disaster management points and implementation of the

recommendations made in the reports;

- (f) carrying out health and safety surveys and identifying causes of accidents;
- (g) looking into any complaint made on the likelihood of an imminent danger to the safety and health of the workers and suggesting corrective measures: and
- (h) reviewing the implementation of the recommendations by it.

(8) Where owing to the size of the factory, or any other reason, the functions referred to in sub-rule (7) cannot be effectively carried out by the Safety Committee, it may establish sub- committee as may be required to assist, it.

68-G. Ovens and Driers. :-

(1) Application:-

This rule shall apply to ovens and driers, except those used in laboratories or kitchens of any establishment and those which have a capacity below 325 litres.

(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 practice and be of good construction, sound materials 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 safety system 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 alternation or repair which has the effect of modifying only of the design characteristics, shall not be used unless a thorough examination and tests 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 fans 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 sub-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 upto 50 percent of the lower explosive limit of the concerned flammable substance may be permitted to exist subject to installation and maintenance of an automatic device which: -

- (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 limits, is provided to the oven or drier and maintained in efficient working condition.
- (c) No oven 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 sub-clause (b).
- (e) Exhaust ducts of safety ventilation systems should be so designed and placed that their ducts discharge the mixture of air and flammable substance away from the workrooms and not near windows or doors or other openings from where mixture could re- enter the workrooms.
- (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-Docketed 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 shall handle atleast the minimum ventilation rate required for safety when they are set in their maximum throting position.

(6) Explosion panels.:-

- (a) Every oven or drier having an internal total space of not less than half-cubicmetre 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 opening to be provided by means of such vents together with the area of openings of any access doors which are provided with suitable centimeter for every one cubic metre 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 exploding 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 and drier.

(7) Inter-locking arrangements:-

- (a) In each oven or drier efficient inter-locking arrangements shall be provided and maintained to ensure that:-
- (i) all ventilating fans and circulating fans whose failures would adversely effect the ventilation rate of flow pattern, are in operation before any mechanical conveyer 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 conveyer as referred to in sub-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 electrical heated ovens switch off the electrical supply to the heaters;
 - (iii) the above said mechanical conveyer is set in operation before the above said shut off valve can be energized; and
 - (iv) the failure of the above said conveyer shall automatically close the above said shut off in the case of ovens and driers 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 prevention:-

Every oven or drier heated by oil, gas, steam or electricity shall be provided with an efficient arrangement for automatic prevention consisting of at least 3 volume changes with fresh air by operation of 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 conveyer 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:- Whenever materials are to be processed in ovens or drier in successive operations, suitable arrangement shall 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 substance on electric heaters or burner flame used for heating.

(12) Periodical examination, testing and maintenance:-

- (a) All parts of every oven and 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, 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 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.

(14) Polymerising machines. :-

- (a) Printed fabric shall be thoroughly dried by passing them over drying cans or through hot flow or other equally effective means, before the same is allowed to pass through polymerising machines.
- (b) Infra-red ray heaters of polymerising shall be cut off while running the prints.

68-H. Ship building, ship-repairing and ship-breaking. :-

(1) Application:-

This rule shall as respects work carried out in any of the operations as defined in sub-rule (2).

(2) Definitions:-

In this rule, unless there is anything repugnant in the subject or context: -

- (a) "certificate of entry" means a certificate which is given by a person who is a competent analyst and who is competent to give such certificates, and certifies that he has in an adequate and suitable manner tested the atmosphere in the oil-tank or oil tanks specified in the certificate and found that regard to all the circumstances of the case, including the likelihood or otherwise of the atmosphere being or becoming dangerous, entry to the oil-tank without wearing breathing apparatus may in his opinion be permitted;
- (b) "hot work" means any work which involves -
 - (i) welding, cutting, burning, soldering, brazing, or chipping by spark, flame producing tools : or
 - (ii) use of non-flame proof electrical equipments with internal combustion engines :

and includes any other work which is likely to produce sufficient heat capable of igniting flammable gases or vapours;

- (c) "naked light certificate" means a certificate which is given by a person who is a competent analyst and who is competent to give such certificates, and certifies that he has in an adequate and suitable manner tested for the presence of flammable vapour, oil in ship or vessel specified in the certificate and found it to be free there from and that having regard to all the circumstances of the case, including the likelihood of otherwise becoming flammable, the use of naked lights, fires, lamps or heated rivets or any hot work to be carried out may in his opinion be permitted in the (oil- tank, compartment, space or other part of the vessel, ship specified in the certificates;
- (d) "oil" means any liquid which has a flash, point below 132 degrees centigrade and also includes lubricating oils, liquid methane, liquid butane and liquid propane :

Explanation :- Flash point wherever it occurs in this rule shall be flash point as determined by

Aback Closed Cap or Pensky Marten Closed Cup procedures as described in 1.S. 1448-1960.

- (e) "oil-tank" means any tank or compartment in which oil is or has been carried;
- (f) "the operations" means construction, reconstruction, or breaking up of any ship or vessel, repairing, refitting, painting and 'finishing "ship and vessel" have the same meaning's as given in the Merchant Shipping Act, 1958;
- (h) "shipyard" means any yard or dry dock (including the precincts thereof) in which ships or vessels are constructed, reconstructed, repaired, refitted, finished or broken.
- (i) "stage" means any temporary platform on or from which person employed perform work in connection with the operations, but does not include a boatswain's chair;
- (j) "staging" includes any stage, and any upright, thwart, thwart pin, wedge, distance place, belt or other appliance or material, not being part of the structure of the vessel, which is used in connection with the support or any stage, and any guard-rails connected with a stage: and
- (k) "tanker" means a vessel constructed or adopted for carrying a cargo of oil in bulk.

(3) Access to vessels in dry dock.:-

- (a) If a ship is lying in a dock for the purpose of undergoing any of the operations, there shall be provided as means of access for use of workers at such times as they have to pass to, or from, the ship or dry dock: -
 - (i) where reasonably practicable, one or more ship's accommodation ladders: or
 - (ii) one or more soundly constructed gangways or similar constructions.
- (b) The means so provided shall be not less than 55 centimeters wide, properly secured and fenced throughout on each side to a clear height of 90 centimeters by means of upper and lower rails, taut ropes or chains or by any other safe means, except that in the case of the ship's accommodation ladder, such fencing shall be necessary on one side only provided that the other side is properly protected by the ship's side.
- (c) Where at any dry dock, there is a gangway giving access from an alter of the dock to a vessel which is in the dock for the purpose of undergoing any of the operations, and the edge of the alter is unfenced, adequate hand-holds shall be available for any length of the alter which workers commonly use when passing between the gangway and the nearest flight of steps which gives access to ground level.

(4) Ladders.:-

- (a) Subject to clauses (b) and (c) of this sub-rule, every ladder which affords a means of access,
 - (i) be soundly constructed and properly maintained; and
 - (ii) be of adequate strength for the purpose for which it is used: and
 - (iii) be securely fixed either :-
 - (aa) as near its upper resting place as possible, or
 - (bb) where this is impracticable, at its base, or where such fixing is impracticable a person shall

be stationed at the base of the ladder when in use to prevent it from slipping; and

- (iv) unless there is other adequate hand-hold, extend to a height of at least 75 centimeters above the place of landing or the highest rung to be reached by the foot of any person working on the ladder, as the case may be, or, if this is impracticable, to the greatest practicable height
- (b) Provision contained in sub-clause (iii) and (iv) of clause (4) of this sub-rule shall not apply to fixed ladders of a ship or to rope ladders. Effective measures by means of roping off or other similar means shall be taken to prevent the use of fixed ladders of a ship which do not comply with requirements (i) and (ii) of that clause.
- (c) Any worker who removes any ladder and set it up in a new position shall, as regards that ladder, comply with sub-clause (iii) of clause (a) of this sub-rule.
- (d) Rope ladders shall provide foot-hold of a depth including any space behind the ladder of not less than 12 centimeters and, so far as is reasonably practicable, suitable provisions shall be made for preventing such ladders from twisting.

(5) Lashing of ladders.

- (a) A fibre-rope, or a rope made with strands consisting of wire covered with fibre, shall not be used to secure a ladder used for the purpose of the operations.
- (b) A wire-rope shall not be used to secure any such ladders unless its ends are females, but this provision shall not apply in the case of an end which is so situated or protected that a person using the ladder is not liable to come into contact with it so as to suffer injury.

(6) Boatswain's chairs. -

- (a) Boatswains' chairs and chains, ropes or other gear used for their suspension shall be of sound materials, adequate strength and suitable quantity and the chains, ropes or other gear shall be securely attached.
- (b) Suitable measures shall be taken to prevent which possible the spinning of a boatswain's chair to prevent the tipping of a boatswain's chair and to prevent any occupant falling there from.

(7) Throwing down materials and articles:-

- (a) Subject to the provisions of clause (b) of this sub-rule, parts of staging tools and other articles and materials shall not be thrown down from a height where they are liable to cause injury to workers, but shall be properly lowered.
- (b) When the work to be done necessarily involves the throwing down, from a height, of articles or materials, conspicuous notice shall be posted to warn persons from working or passing underneath the place from which articles or materials may fall, or the work shall be done under the direct supervision of a competent person in authority.
- (c) No person shall throw down any articles or materials from a height except in accordance with the requirements of this sub-rule.

(8) Loose articles or materials:-

So far as practicable, steps shall be taken to minimize the risk arising from loose articles or materials being left lying about in any place from which they may fall on workers or person passing

underneath.

Precautions against Asphyxiation, Injurious Fumes, Explosions Or Fire.

¹[(9) Certification for entry into confined spaces likely to contain dangerous substance:-

A space shall not be certified under Sec. 36(2)(e) of the Act unless: -

- (a) any flammable liquid or refrigerant gases have been removed by proper purging and any carbon - dioxide has been removed.
- (b) effective steps have been taken to prevent any ingress of dangerous fumes;
- (c) any sludge or other deposit liable to give-off dangerous fumes has been removed and the space contains no other materials liable to give-off dangerous fumes ;
- (d) the space has been adequately ventilated and tested for dangerous fumes, carbon dioxide or any other toxic gas or vapour, and has a supply of air adequate for respiration.]

(10) Precaution against shortage of oxygen.-

No person shall enter or remain in any confined space in a vessel, being a confined space in which there is a reason to apprehend that the proportion of oxygen in the air is so low as to invoke risk or persons being overcome, unless either.

- (a) the space has been and remain adequately ventilated and responsible person has tested in and certified that it is safe for entry without breathing apparatus; or
- (b) he is wearing a suitable breathing apparatus and a safety belt securely to a rope, the free end of which is held by a person standing outside the confined space.

(11) construction of plant for cutting, welding or heating metal:-

- (a) Pipes or hoses for the supply of oxygen or any flammable gas or vapour to any apparatus for cutting, welding or heating metal shall be of good construction and sound material and be properly maintained.
- (b) Such pipes or hoses shall be securely attached to the apparatus and other connections by means of suitable clips or other equally effective appliances.
- (c) Efficient reducing and regulating valves for reducing the pressure of the gases shall be provided and maintained in connection with all cylinders containing oxygen or any flammable gas or vapour at a pressure above atmospheric pressure while the gases or vapours from such cylinders are being used in any process of cutting, welding or heating metal.
- (d) Where acetylene gas is used for cutting, welding or heating metal-
 - (i) a properly constructed and efficient back-pressure valve and flame arrester shall be provided and maintained in the acetylene supply pipe between each burner or blow-pipe and the acetylene generator, cylinder or container from which it is supplied, and shall be placed as near as practicable to the burner or blow pipe, except that these requirements shall not apply where an acetylene cylinder serve only one burner or blow - pipe; and
 - (ii) any hydraulic valve provided in pursuance of the preceding sub-clause shall be inspected

on each day of every person who uses the burner or blow-pipe on that day and it shall be the duty of every worker who used the burner or blow-pipe to inspect the hydraulic valves accordingly.

- (e) The operating valves of burners or blow-pipe to which oxygen or any flammable gas or vapour is supplied for the purpose of cutting, welding, or heating metal shall be so constructed, or operating mechanism shall be so protected, that the valves cannot open accidentally.

(12) Precautions after use of apparatus for cutting, welding or heating metal: -

- (a) In the case of apparatus on board or vessel is used for cutting welding, or heating metal with the aid of oxygen or any flammable gas or vapour supplied at a pressure above atmospheric pressure, the precautions specified in the following clauses of this sub-rule shall be taken when such use ceases for the day or for a substantial period and the apparatus is to be left on board, but need not be taken when such use is discontinued merely during short interruptions of work. The provisions of clauses(c) and (d) of this sub-rule shall not apply during a meal interval, provided that a responsible person is placed in charge of the plant and equipment referred to therein.
- (b) Supply valves of cylinders, generators and gas mains shall be securely closed and the valve key shall be kept in the custody of a responsible person.
- (c) Movable pipes or hoses used for conveying oxygen or flammable gas or vapour and the welding and cutting torches shall, in the case of a vessels undergoing construction, be brought to the top most completed deck, or in the case of a vessel undergoing repair, to a weather deck or in the either case to some other place of safety which is adequately ventilated to prevent any dangerous concentration of gas or fumes:

Provided that where owing to the nature of the work, it is impracticable to comply with the foregoing requirements of this clause, the pipes or hoses shall be disconnected from cylinders, generators or gas mains, as the case may be.

(13) Naked light and hot work on oil-carrying vessels:-

- (a) subject to the provisions of clause
- (b) of this sub-rule and without prejudice to the provision of sub-rule(17) no naked light, fire or lamp (other than a safety lamp of a type approved for the purpose of this sub-rule): -
- (i) shall be permitted to, or to be in, or any hot work permitted to be carried out in any part of a ²[tank], unless, since oil was last carried in that ²[tank], a naked light certificate has been obtained and is in force in respect of those parts of the ²[tank] for which, in the opinion of a competent analyst, a naked light certificate is necessary:

Provided that a naked light, fire or lamp of a kind specified in writing by a competent analyst may be applied to, or be in, or any hot work of a type specified by him carried on, any part of the ²[tank] so specified :

- (ii) shall be permitted: -
 - (aa) to be in any oil-tank on board or in a vessel in which oil-tank the oil last carried was oil having a flash point of less than 23 degrees centigrade or was liquid buttons, nor any hot work permitted to be carried out in any such oil tank or vessel, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that oil-tank and of any oil-tank, compartment or space adjacent thereto;

- (bb) to be applied to the outer surface of any oil-tank on board or in a vessel in which oil-tank the oil last carried was as aforesaid nor any work of such a nature which is likely to produce sufficient heat capable of igniting flammable gases or vapours permitted to be carried out on the outer surface of such oil-tank or vessel, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that oil tank;
- (cc) to be applied to the outer surface of, or to be in, any compartment or space adjacent to an oil-tank on board or in a vessel in which oil-tank the oil last carried was such oil as aforesaid, nor any work permitted to be carried out in such compartment or space as aforesaid, nor any work of such nature which is likely to produce sufficient heat capable of igniting flammable gases or vapours, permitted to be carried out on the outer surface, of such compartment or space, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that compartment or space:

Provided that where in any such case referred to in paragraphs (aa), (bb) or (cc) of this sub-clause a competent analyst has certified that daily naked light certificates are unnecessary or are necessary only to a specified extent, such daily certificate need not be obtained or, as the case may be, need only be obtained to the specified extent;

- (iii) shall be permitted to be applied to the outer surface of or to be in any oil-tank on board or in vessel nor any hot work permitted to be carried out in any such oil-tank or vessel: nor any work of such nature which is likely to produce sufficient heat capable of igniting flammable gases or vapours, permitted to be carried out on the outer surface of the oil tank or vessel, since oil was last carried in that oil-tank, a naked light certificate has been obtained and is in force in respect of that oil-tank;
- (iv) shall be permitted to be applied to the outer surface of, or to be in. any compartment or space adjacent to an oil-tank on board or in a vessel nor any hot work permitted to be carried out in any such compartment or space, nor any work of such nature which is likely to produce sufficient heat capable of igniting inflammable gases or vapours, permitted to be carried out on the outer surface of any such compartment of space, unless since oil was last carried as cargo in that oil-tank, a naked light certificate has been obtained and is in force In respect of that compartment or space.
- (b) No person shall introduce, have or apply naked light, fire or lamp (other than safety lamp of a type approved for the purpose of igniting flammable gases of this sub-rule) into, in or to any place where they are prohibited by this sub-rule.
- (c) No person shall carry out hot work of such nature which is likely to produce sufficient heat capable of igniting flammable gases or vapours, in any place or any surface where they are prohibited by this sub-rule.
- (d) In this sub-rule, the expression "competent analyst" means an analyst who is competent to give a naked light certificate.

(14) Entering oil-tanks.:-

- (a) No person (other than an analyst entering with a view to issuing of entry) shall, unless he is wearing a breathing apparatus of a type approved for the purpose of this sub-rule, enter or remain in an oil- tank on board or in a vessel unless, since the oil-tank last contained oil, a certificate of entry has been obtained and is in force in respect of the tank.
- (b) Without prejudice to clause (a) of this sub-rule, no person (other than an analyst entering as aforesaid) shall be allowed or required to enter or remain in an oil-tank on board or in a

vessel in which oil-tank the oil last carried was oil having a flash point of less than 23 degrees centigrade unless, since the oil-tank last contained oil, an analyst has certified that the atmosphere is sufficiently free from flammable mixture.

(c) The provisions of this sub-rule are without prejudice to the provisions of sub-rule (10).

(15) Posting of certificates:- Every occupier for whom a naked light certificate or a certificate of entry is obtained shall ensure that the certificate on a duplicate thereof is posted as soon as may be and remains posted in a position where it may be conveniently read by all persons concerned.

(16) Cleaning of oil-tank.:-

(a) Before a test for flammable vapour is carried out with a view to the issue of a naked light certificate for the purposes of sub-rule (13) in respect of an oil-tank on board or in a vessel, that oil-tank shall, since oil was last introduced into the tank, be cleaned and ventilated in accordance with clause (b) of this sub-rule.

(b) The said cleaning ventilation shall be carried out by the following method :-

(i) the oil-tank shall be treated in such manner and for such period as shall ensure the vaporation of all volatile oil;

(ii) all residual and any sludge or other deposit in the oil-tank shall be removed there from; and

(iii) after the oil-tank has been so cleaned, -

(aa) all covers of manholes and other operatings therein shall be removed and it shall be thoroughly ventilated by mechanical or other efficient means with a view to the removal of all oil vapour; and then

(bb) the interior surfaces, shall be washed or scrapped down.

(17) Provisions as to work in other compartments or spaces.:-

(a) Without prejudice to the other provisions of this rule, if the presence of oil is in such quality and in such position as to be likely to give rise to fire or explosion is detected in any part of a vessel, being a part to which this sub-rule applies and in which repairs of the following kind are to be or are being undertaken, that is to say repairs involving the use of naked light, fire or lamp (other than a safety of a type approved for the purpose of sub-rule (23)) or involving hot work, such repairs shall not be started or continued until a naked light certificate has been issued or, as the case may, be issued in respect of that part of the vessel.

(b) This sub-rule shall apply to bilges, shaft-tunnels, pump-rooms, lamp-rooms, and to compartments and spaces other than those to which clause (a) (iv) of sub-rule (13) applies.

(18) Hand protection.:-

Adequate protection for the hands shall be available for all workers when using cutting or welding apparatus to which oxygen or only flammable gas or vapour is supplied at a pressure greater than atmospheric pressure or when engaged in machine caulking or machine riveting or in transporting or stacking plates or in handling plates at machines.

(19) Protection in connection with cutting or welding.:-

- (a) Suitable goggles fitted with tinted eye-pieces shall be provided and maintained for all persons employed when using cutting or welding apparatus to which oxygen or any flammable gas or vapour is supplied at pressure above atmospheric pressure.
- (b) There shall be provided and maintained for the use of all persons employed when engaged in the process of electric welding.:-
- (i) suitable helmets or suitable head-shields to protect the eyes and face from hot metal and from rays likely to be injurious:
- (ii) suitable gauntletes to protect the hands and forearms from hot metal and from rays likely to be injurious.
- (c) When electric welding is in progress at any place and persons other than those engaged in that process are employed in a position where the rays are likely to be injurious to their eyes, screens shall, where practicable, be provided at that place for the protection of these persons. Where it is not practicable to provide effective protection of those persons by screening suitable goggles shall be provided for their use.

(20) Head protection.:-

When workers are employed in areas where there is danger of falling objects they shall be provided with suitable safety helmets.

(21) Safety-belts and life-lines.:-

- (a) Whenever any worker is engaged on work at a place from which he is liable to fall more than 2 meters, he shall be provided with safety belts equipped with life-lines which are secured with a minimum of stakes, to a fixed structure unless any other effective means such as provision of guard-rails or guard ropes are taken to prevent his falling.
- (b) All safety-belts and life-lines shall be examined at frequent intervals by a competent person to ensure that no belt or life-line which is not in good condition is used.

(22) Health, and welfare.:-

Prohibition of employment of young persons in certain processes.- No young person shall be employed in:-

- (a) the application of asbestos by means of spray;
- (b) the breaking down for removal of asbestos lagging;
- (c) the cleaning of sacks or other containers which have contained asbestos;
- (d) the cutting of material containing asbestos by means of portable power driven saws: or
- (e) the scaling, scurting or cleaning of boilers, combustion chambers of smoke boxes, where his work exposes him to dust of such a character and to such an extent as to be likely to be injurious or offensive to persons employed in such work.

(23) Safety supervision.:- In the case of every shipyard, a person experienced in the work of such yards shall be appointed and employed exclusively to exercise general supervision observance of these rules and to promote and safe conduct of the work generally.]

Footnotes:

1. Substituted by Noti. No. GHR/2000/54/FAC/1099/2075/M(3) dt. 11-4-2000 Guj. Govt. Gaz. Exty PI. IV A No. 66 at 18-4-2000 P-66.1
2. For the words "tanker" this words substituted by Not. No. GHR/2000/54/FAC/1099/ 2075/M(3) dt. 11-4-2000.

¹ Chapter IV-A

68-1. Site Appraisal Committee. :-

The following provisions shall govern the functioning of the Site Appraisal Committee: -

- (1) No member, unless required to do so by a Court of Law, shall disclose otherwise than in connection with the purpose of the Act, any information relating to manufacturing or commercial business or any working process which may come to his knowledge during his tenure as a Member of this Committee.
- (2) (a) Application for appraisal of sites in respect of the factories covered under Sec. 2(cb) of the Act shall be submitted to the Chairman of the Site Appraisal Committee.
(b) The application for site appraisal along with 15 copies thereof shall be submitted in Form No. 1-B. The Committee may dispense with furnishing the information on any particular item in the Application Form if it considers the same to be not relevant to the application under consideration.
- (3) (a) The Secretary shall arrange to register the applications received for appraisal of site in a separate register and acknowledge the same within a period of seven days.
(b) The Secretary shall fix by meeting in such a manner that all applications received and registered are referred to the Committee within a period of one month from the date of their receipt.
(c) This 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 appraise of site with reference to the prohibition and restrictions on the location of industry and the carrying on of processes and operations in different areas as per the provisions of Rule 5 of the Environment (Protection) Rules, 1996 framed under the Environment Protection Act, 1986.
(e) The Committee may call for the documents, examine reports, 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, the application for site Appraisal shall be considered by the site Appraisal Committee only after such clearance has been received.

Footnote:

1. Ins. by Notfn. dt. 15.2.1995

68-J. (1) Definitions.:-

In this chapter, unless the context otherwise requires -

- (a) "Hazardous chemical" means -
 - (i) any chemical which contains any of the criteria laid down in part I of Schedule I and is listed in column (2) of part II of said Schedule, or;
 - (ii) any chemical listed in column 2 of Schedule 2, or;
 - (iii) any chemical listed in column 2 of Schedule 3;
- (b) "Industrial activity" means an operation or process carried out in a factory referred to in Schedule 4 involving or likely to involve one or more hazardous chemicals and includes on site storage or on-site transport which is associated with that operation or process, as the case may be;
- (c) "isolated storage" means storage where no other manufacturing process other than pumping of hazardous chemical is carried out and that storage involves atleast a quantity of that chemical set out in Schedule 2, but, does not include storage associated with a factory specified in Schedule 4 on the same site;
- (d) "major accident" means an incident involving loss of life inside or outside the site or ten or more injuries inside and/or one or more injuries outside or release of toxic chemical or explosion or fire or spillage of hazardous chemical result in 'on-site' or 'off-site' emergencies or damage to equipments leading to stoppage of process or adverse effects to the environment.
- (e) "pipeline" means a pipe (together with any apparatus and works associated therewith), or system of pipes (together with any apparatus and works associated therewith), for the conveyance of a hazardous chemical, other than flammable gas as set out in Column 2 of Part II of Schedule 3 at a pressure of less than 8 bars absolute;
- (f) "Schedule" means a schedule appended to these rules;
- (g) Words and expressions not defined in these rules but defined or used in the Factories Act, 1948, and the rules made there under have the same meaning as assigned therein.

(2) Collection Development and Dissemination of Information.:-

- (1) This sub-rule shall apply to an industrial activity or isolated storage in which hazardous chemical which contain any of the criteria laid down in Part I of Schedule I and is listed in Column 2 of Part II of the said Schedule is or may be involved.
- (2) An occupier of an industrial activity or isolated storage in terms of clause (1) shall arrange of obtain or develop information in the form of Safety Data Sheet as specified in Schedule 5. The information shall be made accessible to workers upon request for reference.
- (3) The occupier while obtaining or developing a Safety Data Sheet as specified in Schedule 5 in respect of a hazardous chemical handled by him shall ensure that the information is recorded accurately and reflects the scientific evidence used in making the hazard determination in case any significant information regarding hazard of a chemical is available, it shall be added to the safety data sheet as specified in Schedule 5 as soon as practicable.
- (4) Every container of a hazardous chemical shall be clearly labeled or marked to identify: -
 - (a) the contents of the container;

- (b) the name and address of the manufacturer or importer of the hazardous, chemical, and;
 - (c) the physical chemical and toxicological nature of the hazardous chemical.
- (5) In terms of clause (4) where it is impractical to label a chemical in view of the size of the container or the nature of the package, provision shall be made for other effective means like tagging or accompanying documents.
- (3) Duties of Inspector.: -

The Inspector shall: -

- (a) inspect the industrial activity or isolated storage at least once in a calendar year;
- (b) send annually status report on the compliance with the sub rules by occupiers to the Ministry of Environment and Forests through the Directorate General Factory Advice Service and Labour Institute and Ministry of Labour, Government of India.
- (c) enforce direction and procedures in respect of industrial activities or isolated storage covered under the Factories Act, 1948 and in respect of pipelines upto a distance of 500 m from the outside of the perimeter of the factory, regarding;
 - (i) Notification of the major accidents as per clauses (1) and (2) of sub-rule (5).
 - (ii) Notification of sites as per sub-rules (7) and (8).
 - (iii) Safety Reports and Safety Audits as per sub-rules (9) and (10).
 - (iv) Preparation of on-site emergency plans as per sub-rule (12) and involvement in the preparation of off-site emergency plans in consultation with District Collector or District Emergency Authority.

(4) General responsibility of the Occupier -

- (1) (a) an industrial activity in which a hazardous chemical which contain any of the criteria laid down in Part I of Schedule 1 or is listed in Column 2 of Part II of the said Schedule is or may be involved; and,
 - (b) isolated storage in which there is involved a threshold quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the threshold quantity specified in this Schedule for that chemical in Column 3 thereof.
- (2) An occupier in terms of clause (1) shall provide information on demand to show that he has: -
 - (a) identified the major accident hazards;
 - (b) and, taken adequate steps to: -
 - (i) prevent such major accidents and to limit their consequences to persons and the environment; and,
 - (ii) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and health.

(5) Notification of major accidents.:-

(1) Where a major accident occurs on a site or in a pipeline, the occupier shall, within, forty eight hours notify to the Inspector and Chief Inspector of that accident, and furnish thereafter to the Inspector and Chief Inspector a report relating to the accident in installments, if necessary, in Schedule 6.

(2) The Inspector and Chief Inspector shall, on receipt of the report in accordance with clause (1), undertake a full analysis of the major accident and send the requisite information to the Ministry of Environment and Forests through the Directorate General Factory Advice Services and Labour Institute and Ministry of Labour, Government of India.

(3) An occupier shall notify to the Inspector steps taken to avoid any repetition of such occurrence on a site.

(4) The Inspector and Chief Inspector shall compile information regarding major accidents and make available a copy of the same to the Ministry of Environment and Forests through Directorate General Factory Advice Service and Labour Institute and Ministry of Labour, Government of India.

(5) The Inspector and the Chief Inspector shall inform the occupier in writing of any lacunae, which in their opinion needs to be rectified to avoid major accidents.

(6) Industrial activities or isolated storage to which sub-rules (7) to (13) apply:-

(a) Sub-rules (7), (8), (12) and (13) shall apply to an industrial activity, other than isolated storage, in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 3.

(b) Sub-rules (8) to (10) shall apply to an industrial activity other than isolated storage, in which, there is involved a quantity of a hazardous chemical listed in the Column 2 of Schedule 3 Which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 4;

(c) sub-rules (5) and (6) shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in the Column 2 of Schedule 2 which is equal to or more than, the threshold quantity specified in the entry for that chemical in Column 3; and,

(d) Sub-rules (8) to (12) shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 4.

(7) Notification of site:-

(1) An occupier shall not undertake any industrial activity or isolated storage unless he has submitted a written report to the Chief Inspector containing the particulars specified in Schedule 7 atleast ninety days before commencing that activity or before such shorter time as the Chief Inspector may agree and for the purposes of this sub-rule an activity in which subsequently there is or is liable to be threshold quantity given in Column 3 of Schedules 2 and 3 or more of an additional hazardous chemical shall be deemed to be a diffefiz;h~ activity and shall be notified accordingly.

(2) The Chief Inspector, within sixty days from the date of receipt of the report in accordance with clause (1) of this sub-rule, shall examine and on examination of the report if he is of the opinion that contravention of the provisions of the Act or the rules made there under has taken place, he may issue notice for obtaining compliance.

(8) Updating of the site notification.

(1) Where an activity has been reported in accordance with clause (1) of sub-rule (7) and the occupier makes a change in it (including an increase or decrease in the maximum quantity of a hazardous chemical to which this rule applies which is or is liable to be at the site or in the pipeline or at the cessation of the activity) which affects the particular specified in that report or any subsequent report made under this sub-rule, the occupier shall forthwith furnish a further report to the Inspector and the Chief Inspector.

(9) Safety Reports and Safety Audit Reports.:-

(1) Subject to the following clause of this sub-rule, an occupier shall not undertake any industrial activity or isolated storage to which this sub-rule applies, unless he has prepared a safety reports on that industrial activity containing the information specified in Schedule 7 and has sent a copy of that report to the Chief Inspector at least ninety days before commencing that activity.

(2) After the commencement of these rules, the occupiers of both the new and the existing industrial activities or isolated storage shall arrange to carry out safety audit by a competent agency to be accredited by an Accreditation Board to be constituted by the Ministry of Labour, Government of India in this behalf.

Further, such auditing shall be carried as under: -

- (a) internally once in a year by a team of suitable plant personnel;
- (b) externally once in two years by a competent agency accredited in this behalf;
- (c) in the year when an external audit is carried out, internal audit need not be carried out;

(3) The occupier, within thirty days of the completion of the audit, shall send a report to the Chief Inspector with respect to the implementation of the audit recommendations.

(10) Updating of safety report under sub-rule (9).

(1) Where an occupier has made a safety report in accordance with clause (1) of sub-rule (9), he shall not make any modification to the industrial activity or isolated storage to which that safety report relates which could materially affect the particulars in that report, unless he has made a further report to take account of those modification and has sent a copy of the report to the Inspector and Chief Inspector at least ninety days before making those modifications.

(2) Where an occupier has made a report in accordance with sub-rule (9) and clause (1) of this rule and that industrial activity or isolated storage is continuing, the occupier shall, within three years of the date, of last such report make a further report which shall have regards in particular to new technical knowledge which has affected the particulars in the previous report relating to safety and hazard assessment and shall within thirty days or in such longer time as the Inspector and Chief Inspector may agree in writing, send a copy of the report to the Inspector and Chief Inspector.

(11) Requirements of further information to be sent to the Inspector and Chief Inspector.: -

Where in accordance with sub-rules (9) and (10), an occupier has to sent safety report and safety audit report relating to an industrial activity or isolated storage to the Inspector and Chief Inspector, the Inspector and Chief Inspector may, by a notice served on the occupier, require him to provide such additional information as may be specified in the notice and the occupier shall send that information to the Inspector and Chief Inspector within ninety days.

(12) Preparation of on-site emergency plan by the occupier.:-

(1) The occupier shall prepare, keep upto date and furnish to the Inspector and Chief Inspector and

(Sic an) on-site emergency plan containing details specified in Schedule 8-A and detailing how major accidents will be dealt with on the site on which the industrial activity or isolated storage is carried on and that plan shall include the name of the person who is responsible for safety on the site and the names of those who are authorized to take action in accordance with the plan in case of an emergency;

(2) The occupier shall ensure that the emergency plan prepared in accordance with clause (1), takes into account any modification made in the industrial activity or isolated storage and that every person on the site who is concerned with the plan is informed of its relevant provision.

(3) The occupier shall prepare the emergency plan required under clause (1) :-

(a) before the commencement of industrial activity or isolated storage.

(b) within ninety days of coming into operation of these rules in case of and (Sic an) existing industrial activity or isolated storage.

(4) The occupier shall ensure that a mock drill of the on-site emergency is conducted atleast once in every six months.

(5) A detailed report of the mock drill conducted under clause (4) shall be made immediately available to the Inspector and Chief Inspector.

(13) Information to be given to persons liable to be affected by a major accident.:-

(1) The occupier shall take appropriate steps to inform persons outside the site who are likely to be in an area which may be affected by a major accident about: -

(a) the nature of the major accident hazard; and

(b) the safety measures and the 'DOS' and "Dont's' which should be adopted in the event of a major accident.

(2) The occupier shall take the steps required under clause (1) to inform persons about an industrial activity or isolated storage before that activity is commenced, except that in respect of an existing industrial activity or isolated storage, the occupier shall comply with the requirements of clause (1) within ninety days of coming into operation of these rules.

(14) Disclosure of information.:-

Where for the purpose of evaluating information notified under sub-rule (5) of Rules (7) to (13), the Inspector or the Chief Inspector or the District Emergency Authority discloses that information to some other person, that other person shall not use that information for any purpose except a purpose of the Inspector or the Chief Inspector or the District Emergency Authority disclosing it, as the case may be, and before disclosing that information the Inspector or the Chief Inspector or the District Emergency Authority, as the case may be, shall inform that other person of his obligations under this sub-rule.

(15) Power of the State Government to modify the Schedules.:-

The State Government may, at any time, by notification in the Official Gazette, make suitable changes in the Schedules.

Schedule -1

[See Sub-Rules 68-J (1) (a) (i) (2) (1), (3) (1) (a)]

Indicative Criteria and List of Chemicals

Part - 1 - Indicative Criteria

(a) Toxic Chemicals:- Chemicals having the following values of acute toxicity and which owing to their physical and chemical properties, are capable of producing major accident hazards:

Sr.	Degree of toxicity	(Medium lethal by the oral route toxicity) LD 50 (mg/kg body weight of test animals)	Medium lethal by the normal (dermal LD 50 body weight of test animals)	Medium lethal concentration by Inhalation route (Four hours) LC 50 (mg/1 Inhalation in test animals)
1.	Extremely toxic	1 - 50	1 - 200	0.1 - 0.5
2.	Highly toxic	51 - 200	201 - 2000	0.5 - 2.0

(b) Flammable Chemicals.:-

- (i) Flammable gases : Chemicals which in the gaseous state at normal pressure and mixed with air become flammable and the boiling point of which at normal pressure is 20 C or below;
- (ii) Highly flammable liquids : Chemicals which have a flash point lower than 23-C and the boiling point of which at normal pressure is above 20-C.
- (iii) Flammable liquids : chemicals which have a flash point lower than 65-C and which remain liquids under pressure, where particular processing conditions, such as high pressure and 'high temperature, may create major accident hazards.

(c) Explosives.:- Chemicals which may explode under the effect of flame, heat or photochemical conditions or which are more sensitive to shocks or friction than dinitrobenzene.

Part II

List Of Hazardous And Toxic Chemicals

Sr. No.	Name of the Chemical
1	2
1.	Acetone
2.	Acetone Cyanohydrine
3.	Acetyl Chloride
4.	Acetylene (Ethyne)
5.	Acrolein (2-Propenal)
6.	Acrylonitrile
7.	Aldicarb
8.	Aldrin
9.	Alkyl Phthalate
10.	Allyl Alcohol
11.	Allylamine

12.	Alpha Naphthyl Thiourea (ANTU)
13.	Aminoiphenyl-4
14.	Aminophenol-2
15.	Amiton
16.	Ammonia
17.	Ammonium Nitrate
18.	Ammonium Nitrates in fertilizers
19.	Ammonium Sulfamate
20.	Anabasine
21.	Aniline
22.	Anisidine-p
23.	Antimony and Compounds
24.	Antimony Hydride (Stibine)
25.	Arsenic Hydride (Arsine)
26.	Arsenic Pentoxide, (Arsenic) (v) Acid and Salts
27.	Arsenic Trioxide, Arsenious (iii) Acids and Salts
28.	Asbestos
29.	Azinphos-Ethyl
30.	Azinphos-Methyl
31.	Barium Azide
32.	Benzene
33.	Benzidine
34.	Benzidme Salts
35.	Benzoquinone
36.	Benzoyl Chloride
37.	Benzoyl Peroxide
38.	Benzyl Chloride
39.	Benzyl Cyanide
40.	Beryllium (Powders, Compounds)
41.	Biphenyl
42.	Bis (2-Chloromethyl) Ketone
43.	Bis (2, 4, 6 - Trinitrophenyl) Amine
44.	Bis (2-Chloroethyl) Sulphide
45.	Bis (Chloromethyl) Ether
46.	Bis (tert-Butylperoxy) Butane -2, 2
47.	Bis (tert-Butylperoxy) Cyclohexane, 11

48.	Bis, 1, 2 Tribonnophenoxy-Ethane
49.	Bisphenol
50.	Boron and Compounds
51.	Bromine
52.	Bromine Pentaflouride
53.	Bromoform
54.	Butadiene-1, 3
55.	Butane
56.	Butanone-2
57.	N-Butanethiol
58.	Butoxy Ethanol
59.	Butyl Glycidal Ether
60.	Butyl Peroxyacetate, tert
61.	Butyl peroxyisobutyrate, tert
62.	Butyl peroxy isopropye carbonate, tert
63.	Butyl Peroxymaleate, tert
64.	Butyl Peroxypivalate, - tert
65.	Butyl vinyl Ether
66.	Butyl-n-Mercaptan
67.	Butylamine
68.	C9 - Aromatic Hydrocarbon Fraction
69.	Cadmium and Compounds
70.	Cadmium Oxide (fumes)
71.	Calcium Cyanide
72.	Captan
73.	Captofol
74.	Carbaryl (Sevin)
75.	Carbofuran
76.	Carbon Monoxide
77.	Carbon Disulphide
78.	Carbon Tetrachloride
79.	Carbophenothion
80.	Cellulose Nitrate
81.	Chlorates (used in explosives)
82.	Carbophenothion
83.	Cellulose Nitrate
84.	Chlorates (used in explosives)

85.	Chlordane
86.	Chlorfenvinphos
87.	Chlorinated Benzenes
88.	Chlorine
89.	Chlorine Dioxide
90.	Chlorine Oxide
91.	Chlorine Trifluoride
92.	Chlonequat Chloride
93.	Chloroacetal Chloride
94.	Chloroacetaldehyde
95.	Chloroaniline, -2
96.	Chloroaniline, -4
97.	Chlorobenzene
98.	Chlorodiphenyl
99.	Chloroepoxypropane
100.	Chloroethanol
101.	Chloroethyl Chloroformate
102.	Chlorofluorocarbons
103.	Chloroform
104.	Chloroformyl, -4, Morpholine
105.	Chloromethane
106.	Chloromethyl Ether
107.	Chloromethyl Methyl Ether
108.	Chloronitrobenzene
109.	Chloroprene
110.	Chlorosulphonic Acid
111.	Chlorotrinitrobenzene
112.	Chloraxuron
113.	Chromium and Compounds
114.	Cobalt and Compounds
115.	Copper and Compounds
116.	Coumafuryl
117.	Comaphos
118.	Coumatetralyl
119.	Cresols
120.	Crimidine
121.	Cumene

122.	Cyanophos
123.	Cyanothoate
124.	Cyanuric Flouride
125.	Cyclohexane
126.	Cyclohexanol
127.	Cycloheximide
128.	Cyclohexanone
129.	Cyclopentadiene
130.	Cyclopentane
131.	Cycloteiramethylenteliaritramine
132.	Cyitrimenthlyene Trinitramaine
133.	DDT
134.	Decabromodipheyl Oxide
135.	Demeton
136.	Di-Isobutyl Peroxide
137.	Di-n-propylperoxydicarbonate
138.	Di-sec-Butyl Peroxydicarbon- ate
139.	Dialifos
140.	Diazodinitrophenol
141.	Diazomethane
142.	Dibenzyl Peroxydicarbonate
143.	Dichloroacetylene-0
144.	Dichloroobenzene-0
145.	Dichlorobenzene-P
146.	Dichloroethane
147.	Dichloroethyl Ether
148.	Dichlorophenol, -2, 4
149.	Dichlorophenol, -2, 6
150.	Dichlorophenoxy Acetic Acid, -2, 4(2, 4-D)
151.	Dichloropropane, -1, 2
152.	Dichlorosalicylic Aicd, -3, 5
153.	Dichlorvos (DDVP)
154.	Dicrotophos
155.	Dieldrin
156.	Diepoxybutane
157.	Diethyl Peroxydicarbonate
158.	Diethylene Glycol Dinitrate

159.	Diethylene Triamine
160.	Diethyleneglycol Butyl Ether Diethyleneglycol Butyl Acetate
161.	Diethylenetriamine (DETA)
162.	Diglycidyl Ether
163.	Dithydroperoxypropane, -2, 2
164.	Di-isobutyryl Peroxide
165.	Dimefox
166.	Dimethoate
167.	Dimethyl Phosphoramidocy-nadic Acid
168.	Dimethyl Phthalate
169.	Dimethylnitrosamine
170.	Dinitrophenol, Salts
171.	Dinitrotoluene
172.	Dinitrotoluene
173.	Dintro-o-Cresol
174.	Dioxane
175.	Dioxathion
176.	Dioxolane
177.	Diphacinone
178.	Diphosphoramidate Octamethyl
179.	DipropyleneGlycolmethylether
180.	Disulfoton
181.	Endosulfan
182.	Endrin
183.	Epichlorohydrine
184.	EPN
185.	Epoxypropane, 1, 2
186.	Ethion
187.	Ethyl Carbamate
188.	Ethyl Ether
189.	Ethyl Hexanol, -2
190.	Ethyl Mercaptan
191.	Ethyl Methacrylate
192.	Ethyl Nitrate
193.	Ethylamine
194.	Ethylene
195.	Ethylene Chlorohydrine

196.	Ethylene Diamine
197.	Ethylene Dibromide
198.	Ethylene Bichloride
199.	Ethylene Glycol Dinitrate
200.	Ethylene Oxide
201.	Ethyleneimine
202.	Ethylthiocyanate
203.	Fensulphothion
204.	Fluometil
205.	Fluoro, -4, -2. Hydroxybutyric Acid and Salts Esters, Amides
206.	Fluoroacetic Acid and Salts, Esters, Amides
207.	Fluorocortonic Acid, -4, Salts, Esters, Amides
208.	Fluorobutyric Acid, -4, and Salts, Esters, Amides
209.	Formaldehyde
210.	Glyconitrile (Hydroxyacetone nitrile)
211.	Guanyl-1, -4 - Nitrosamino-guanyl 1 - Tetrazene
212.	Hexachlorocyclohexane
213.	Hexachlorodibenzo- p-Dioxin, 1, 2, 3, 7, 8, 9,
214.	Hexafluoropropene
215.	Hexamethylphosphoramide
216.	Hexamethyl-, -3, 3, 6, 9, 9-1, 2, 5, 5-Tetraoxacyclononane
217.	Hexamethylenediamine
218.	Hexane
219.	Hexanitrostilbene, -2,2,4,4,6,6
220.	Hexavalent Chromium
221.	Hydrazine
222.	Hydrazine Nitrate
223.	Hydrochloric Acid
224.	Hydrogen
225.	Hydrogen Bromide (Hydrobromic Acid)
226.	Hydrogen Chloride (Liquefied Gas)
227.	Hydrogen Cyanide
228.	Hydrogen Fluoride
229.	Hydrogen Selenide
230.	Hydrogen Sulphide
231.	Hydroquinone
232.	Iodine
233.	Isobutane
234.	Isodrin

235.	Isophorone Diisocyanate
236.	Isopropyl Ether
237.	Juglone (5- Hydroxynapht-halane-1, 4-Dione)
238.	Lead Azide
239.	Lead 2, 4, 6 - Trinitroresor- cinoxide (Lead Stypnnate)
240.	Lead Azide
241.	Leptophos
242.	Lindane
243.	Liquefied Petroleum Gas (LPG)
244.	Maleic Anhydride
245.	Manganese & Compounds
246.	Mercapto Benzothiazole
247.	Mercury Alkyl
248.	Mercury Fluminate
249.	Mercury Methyl
250.	Methacrylic Anhydride
251.	Methacrylonitrile
252.	Methacryloyl Chloride
253.	Methamidophos
254.	Methanesuphonyl Fluoride
255.	Methanthiol
256.	Methoxy Ethanol (2-Methyl Cellosolve)
257.	Methoxyctylmercuric Acetage
258.	Methyl Acrylate
259.	Methyl Alcohol
260.	Methyl Amyiketone
261.	Methyl Bromide (Bromomethane)
262.	Methyl Chloride
263.	Methyl Chloroform
264.	Methyl Cyclohexene
264.	Methyl ethyl Ketone Peroxide
265.	Methyl Hydrazine
266.	Methyl Isobutyl Ketone
267.	Methyl Isobutyl Ketone Peroxide
268.	Methyl Isocyanate
269.	Methyl Isothiocyanate
270.	Methyl Mercaptan
271.	Methyl Methacrylate
272.	Methyl Parathion

273.	Methyl Phosphonic Bichloride
274.	Methyl-N, 2, 4, 6 - Tetranitroaniline
275.	Methylene Chloride
276.	Methylenebis, - 4, 4, (2, - chloroaniline)
277.	Methyltrichlorosilane
278.	Mevinphos
279.	Molybdenum and Compounds
280.	N-Methyl-N, 2, 4, 6- Tetranitroaniline
281.	Naphtha (Coal Tar)
282.	Naphtylamine, 2
283.	Nickel & Compounds
284.	Nickel Tetracarbonyl
285.	Nitroaniline-O
286.	Nitroaniline-P
287.	Nitrobenzene
288.	Nitrochlorobenzene-P
289.	Nitrocyclohexane
290.	Nitroethane
291.	Nitrogen Dioxide
292.	Nitrogen Oxides
293.	Nitrogen Trifluoride
294.	Nitroglycerine
295.	Nitrophenol-P
296.	Nitropropane-1
297.	Nitropropane-2
298.	Nitrosodimethylamine
299.	Nitrotoluene
300.	Octabromophenyl Oxide
301.	Oleum
302.	Oleylamine
303.	OO - Diethyl S- Ethylsulphonlmethyl
304.	OO - Diethyl S- Ethylsulphonylmethyl Phosphorothioate
305.	OO - Diethyl S- Ethylthiomethyl Phosphorothioate
306.	OO - Diethyl S- Isopropylthiomethyl Phosphorodithioate
307.	OO-Diethyl S-propylthiomethyl Phosphorodithioate
308.	Oxyamyl
309.	Oxydisulfoton
310.	Oxygen (liquid)

311.	Oxygen Diflouride
312.	Ozone
313.	Paroxon (diethyl 4-Nitrophenyl Phosphate)
314.	Paraquat
315.	Parathion
316.	Parathion Methyl
317.	Paris green (Bis Aceto Hexametarsenito Tetracopper)
318.	Pentaborane
319.	Pentabromodiphenyl Oxide
320.	Pentabromophenol
321.	Pentachloro Napththalene
322.	Pentachloroethane
323.	Pentachlorophenol
324.	Pentaerythritol Tetranitrate
325.	Pentane
326.	Peracetic Acid
327.	Perchloroethylene
328.	Perchloromethyl Mercaptan
329.	Petanone, 2, 4-Methyl
330.	Phenol
331.	Phenyl Glyddal Ether
332.	Phenylene p-Diamine
333.	Phenylmercury Acetate
334.	Phorate
335.	Phosacetim
336.	Phosalone
337.	Phosfolan
338.	Phosgene (car-bonyl chloride)
339.	Phosmet
340.	Phosphamidon
341.	Phosphine (Hydrogen Phosphide)
342.	Phosphoric Add and Esters
343.	Phosphoric Acid, Bromoethyl Bromo (2, 2- Dimethylpropyl) Bromoethyl Ester
344.	Phosphoric Acid, Bromoethyl Bromo (2, 2- Dimethylpropyl) Chloroethyl Ester
345.	Phosphoric Acid Chloroethyl Bromo (2,2-Dimethoxylpropyl Chloroethylester)
346.	Phosphorous & Compounds

347.	Phostalan
348.	Picric Acid (2, 4, 6 -Trinitrophenol)
349.	Polybrominated Biphenyls
350.	Potassium Arsenite
351.	Potassium Chlorate
352.	Promurit (1, (-3, 4- Dichlorophenyl) -3 Triazenethiocarboxamide)
353.	Propanesultone-1, 3
354.	Propen-1, 2-Chloro-1, 3-Diol- Diacetate
355.	Propylene Oxide
356.	Propyleneimine
357.	Pryazoxon
358.	Selenium Hexaflouride
359.	Semicarbazide Hydrochloride
360.	Sodium Arsenite
361.	Sodium Azide
362.	Sodium Chlorate
363.	Sodium Cyanide
364.	Sodium Picramate
365.	Sodium Selenite
366.	Styrene, 1, 1, 3, 2- Tetrachloroethane
367.	Sulfotep
368.	Sulphur dichloride
369.	Sulphur Dioxide
370.	Sulphur Trioxide
371.	Sulphuric Acid
372.	Sulphoxide, 3 Chloropropyl
373.	Tellurium
374.	Tellurium Hexaflouride
375.	Tepp
376.	Tebufos
377.	Tetrabromobisphenol-A
378.	Tetrachloro, 2, 2, 5, 6, 2, 5-Cyclohexadiene-1, 4-Dione
379.	Tetrachlorodibenzo-p Dioxin, 2,3,7,8 (TCDD)
380.	Tetraethyl Lead
381.	Tetrafluoroethane
382.	Tetramethylenedisulphotetramine
383.	Tetramethyl Lead
384.	Tetranitromethane

385.	Thallium and Compounds
386.	Thionazin
387.	Thinoyl Chloride
388.	Tirpate
389.	Toluene
390.	Toluene 2-4-Diisocyanate
391.	Toludine-0
392.	Toluene 1 2, 6- Diisocyanate
393.	Trans-1, 4-Chlorobutene
394.	Tril (cyclohexyl) Stannyl-1 H-1, 2, 4- Trazole
395.	Triamino, -1, 3, 5, 2, 4, 6- Trintroxenzene
396.	Tribromophenol, 2, 4, 6
397.	Trichloro Acetyl Chloride
398.	Trichloro Ethane
399.	Trichloro Napthalene
400.	Trichloro (Chloromethyl) Silane
401.	Trichlorodichlorophenylsilane
402.	Trichloroethane, 1, 1, 1
403.	Trichloroethyl Silane
404.	Trichloroethylene
405.	Trichloromethanesulphenyl Chloride
406.	Trichlorophenol, 2, 2, 6
407.	Trichlorophenol, 2, 4, 5
408.	Triethylamine
409.	Triethylenemelamine
410.	Trimethyl Chlorosilane
411.	Trimethylopropane Phosphite
412.	Trinitroaniline
413.	Trinitroanisole, 2, 2, 4, 6
414.	Trinitrobenzene
415.	Trinitrobenzoic Acid
416.	Trinitrocresol
417.	Trinitrophenetole, 2, 5, 6
418.	Trinitroresorcinol, 2, 4, 6 (Styphnic Acid)
419.	Trintrotoluene
420.	Triothocresyl Phosphate

421.	Triphenyltin Chloride
422.	Turpentine
423.	Uranium and Compounds
424.	Vanadium and Compounds
425.	Vinyl Chloride
426.	Vinyl Fluoride
427.	Vinyl Toluene
428.	Warfarin
429.	Xylene
430.	Xylidine
431.	Zinc and Compounds
432.	Zirconium and Compounds

Schedule -2

[See Sub-rules 68 (J) - 1(c), 4(1)(b) 6(1)(c) and (d)]

(a) The threshold quantities set out below relate to each installation or group of installations belonging to the same occupier where the distance between installations is not sufficient to avoid, in foreseeable circumstances any aggravation of major accident hazards. These threshold quantities apply in any case of each of the installations belonging to the same occupier where the distance between the installation is less than 500 metres.

(b) For the purpose of determining the threshold quantity of a hazardous chemical at an isolated storage, account shall also be taken of any hazardous chemical which is:

- (i) is that part of any pipeline under the control of the occupier having control of the site, which is within 500 meters of that site and connected to it.
- (ii) at any other site under the control of the occupier any part of the boundary of which is within 500 meters of the said site, and;
- (iii) in any vehicle, vessel, aircraft, or hovercraft under the control of the same occupier which is used for storage purpose either at the site or within 500 metres of it.

but, no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft for transporting it.

Sr. No.	Chemicals	Threshold Quantities (tonnes)	
		For application of sub-rules 4, 5 and 7 & 8	For application of sub-rules 9 to 13
1	2	3	4
1.	Acrylonitrile	350	5,000
2.	Ammonia	60	600
3.	Ammonium Nitrate (a)	350*	2500*
4.	Ammonium Nitrate Fertilizers (b)	1,250	10,000

5.	Chlorine	10	25
6.	Flammable gases as defined in Schedule 1, paragraph (b) (i)	50	3,000
7.	Highly flammable liquids as defined in Schedule 1 paragraph (b) (ii)	10,000	10,000
8.	Liquid Oxygen	200	2,000
9.	Sodium Chlorate	25	250
10.	Sulphur Dioxide	20	500
11.	Sulphur Trioxide	15	100
12.	Carbonyl Chloride	0.750	0.750
13.	Hydrogen Sulphide	5	50
14.	Hydrogen Fluoride	5	50
15.	Hydrogen Cyanide	20	200
16.	Carbon di-sulphide	20	200
17.	Bromine	50	500
18.	Ethylene Oxide	50	500
19.	Propylene Oxide	5	50
20.	2-Propenal (Acrolein)	20	200
21.	Bromomethane (Methyl bromide)	20	200
22.	Methyl Isocyanate	0.150	0.150
23.	Tetraethyl lead or Tetramethyl lead	5	50
24.	1, 2 Dibromoethane (Ethylene dibromide)	5	50
25.	Hydrogen Chloride (Liquid Gas)	25	250
26.	Diphenyl Methane Diisocyanate (MDI)	20	200
27.	Toluene di-isocyanate (TDI)	10	100

- Footnotes:*
- (a) This applies to ammonium nitrate and mixture of ammonium nitrate where the nitrogen content derived from the ammonium nitrate is greater than 28 percent by weight and to aqueous solutions of ammonium nitrate where the concentration of ammonium nitrate is greater than 90 per cent by weight.
- (b) This applies to straight ammonium nitrate fertilizers and to compound fertilizers where the nitrogen content derived from the ammonium nitrate is greater together with phosphate and/or potash).

Schedule - 3

[See Sub-rule 68-J - 1(a)(iii), 1(c), 2(g)(iii), 5, 6(i)(a) and (b)]

- (a) The quantities set out below relate to each installation or group of installations belonging to the same occupier where the distance between the installations is not sufficient to avoid in

foreseeable circumstances, any aggravation or major accident hazards. These quantities apply in any case to each group of installation belonging to the same occupier where the distance between the installations is less than 500 meters.

(b) For the purpose of determining the quantity of control of a hazardous chemical in an industrial installation, account shall also be taken of any hazardous chemical which is:

- (i) in that part of any pipeline under the control of the occupier having control of the site, which is within 500 meters of that the site and connected to it;
- (ii) at any other site under the control of the same occupier any part of the boundary of which is within 500 meters the said site and,
- (iii) in any vehicle, vessel, aircraft or hovercraft under the control of the same occupier which is used for storage purpose either at the site or within 500 meters of it.

But, no account shall be taken of any hazardous chemical which is in a vehicle, vessel, aircraft or hovercraft used for transporting it.

Part - I

Named Chemicals

Sr. No.	Chemicals		Threshold Quantities		CAS Number*
			For application of Rules 4,6,7, 11 & 12		For application of Rules of 8 to 10
1	2		3	4	5
Group 1 Toxic Chemicals					
1.	Aldcarb	100 kg.			116-06-3
2.	4-Aminodiphenyl	1 kg.			92-67-1
3.	Ami ton	1 kg.			78-53-5
4.	Anabasine	100 kg.			494-52-0
5.	Arsenic Pentoxide Arsenic (v) acid and salts	500 kg.			
6.	Arsenic trioxide Arsenious (iii) acid and salts	100 kg.			
7.	Arsine (Arsinic hydride)	10 kg.			7784-42-1
8.	Azinphos-ethyl	100 kg.			2642-71-9
9.	Azinphos-methyl	100 kg.			86-50-0
10.	Benzidine	1 kg.			92-87-5
11.	Benidine Salts	1 kg.			
12.	Beryllium (Powders Compounds)	10 kg.			

13.	Bis (2-chloroethyl) sulphide	1 kg.		505-60-2
14.	Bis (chloromethyl) ether	1 kg.		542-88-1
15.	Carbofiran	100 kg.		1563-66-2
16.	Carbophenothion	100 kg.		786-19-6
17.	Chlorfenvinphos	100 kg.		470-90-6
18.	4-(chloroformyl) Morpholine	1 kg.		5159-40-7
19.	Chotomethyl ether	1 kg.		107-30-2
20.	Cobalt metal, oxides, carbonates	1.t		
21.	Crimidine	100 kg.		535-89-7
22.	Cyanthoate	100 kg.		3734-95-0
23.	Cycloheximide	100 kg.		66-81-9
24.	Demeton	100 kg.		8065-48-3
25.	Dialfos	100 kg.		10311-84-9
26.	Co-Diethyl S-ethylsulphony- lmethyl Phosphorothloate	100 kg.		2588-05-8
27.	Co-Diethyl S-ethyisulphny- lmethyl Phosphorthioate	100 kg.		2588-06-9
28.	Co-Diethyl S-ethylthiomethyl Phosphorodithioate	100 kg.		2600-69-3
29.	Co-Diethyl S-isopropylthio-methyl Phosphorodithioate	100 kg.		78-52-4
30.	Co-Diethyl S-propylthio-methyl Phosphorothioate	100 kg.		3309-68-0
31.	Dimefox	100 kg.		115-26-4
32.	Dimethyl carbamoylchloriae	1 kg.		79-44-7
33.	Dimethyinitrosamine	1 kg.		62-75-9
34.	Dimethyl phosphoramidocyanidic acid	1 t		63917-41-9
35.	Diphacinone	100 kg.		82-66-6
36.	Disulfoton	100 kg.		298-04-4
37.	EPN	100 kg.		2104-64-5
38.	Ethion	100 kg.		563-12-2
39.	Fenaulfotion	100 kg.		115-90-2
40.	Fulenetil	100 kg.		4301-50-2
41.	Fluroacetic acid	1 kg.		144-49-0

42.	Fluoroacetic acid salts	1 kg.		
43.	Fluoroacetic acid, eaters	1 kg.		
44.	Fluoroacetic acid, amides	1 kg.		
45.	4-Fluorobutyric acid	1 kg.		462-23-7
46.	4-Fluorobutyric acid, salts	1 kg.		
47.	4-Fluorobutyric esters	1 kg.		
48.	4-Fluorobutyric acid, amides	1 kg.		
49.	4-Fluorocrotonic acid	1 kg.		37759-72-1
50.	4-Fluorocrotonic acid, salts	1 kg.		
51.	4-Fluorocrotonic esters	1 kg.		
52.	4-Fluorocrotonic acid, amides	1 kg.		
53.	4-Fluoro-2-hydroxy-butyric acid	1 kg.		
54.	4-Fluoro-2-hydroxy-butyric acid, salts	1 kg.		
55.	4-Fluoro-2-hydroxy-butyric acid, esters	1 kg.		
56.	4-Fluoro-2-hydroxy-butyric acid, amides	1 kg.		
57.	Glycolonitrile (hydroxyacetonitrile)	100 kg.		107-16-4
58.	1, 2, 3, 7, 8, 9 - Hexachloro-dibenzo p-dioxin	100 kg.		19408-74-3
59.	Hexamethylphosphoramide	1 kg.		680-31-9
60.	Hydrogen selenide	10 kg.		7783-07-5
61.	Isobenzan	100 kg.		297-78-9
62.	Isodrin	100 kg.		465-73-6
63.	Juglone (5-Hydroxynaphthalene-1, 4-dione)	100 kg.		481-39-0
64.	4, 4' - Methylenebis (2-chloroaniline)	10 kg.		101-14-4
65.	Methyl isocyanite	150 kg.	150 kg.	624-83-9
66.	Mevinphos	100 kg.		7786-34-7
67.	2-Naphthylamine	1 kg.		91-59-8
68.	Nickel metal, Oxides, carbonates, sulphide, as powder	1 t		
69.	Nickel tetracarbonyl	10 kg.		13463-39-3
70.	Oxdisulfone	100 kg.		2497-07-6

71.	Oxygen difluoride	10 kg.		7783-41-7
72.	Paraoxon (diethyl 4-nitrophenyl Phosphate)	100 kg.		311-45-5
73.	Parathion	100 kg.		56-38-2
74.	Parathion-methyl	100 kg.		298-00-0
75.	Pentaborane	100 kg.		19624-22-7
76.	Phorate	100 kg.	100 kg.	298-02-2
77.	Phosacetin	100 kg.		4104-14-7
78.	Phosgene (carbonyl chloride)	750 kg.	750 kg.	75-44-5
79.	Phosphamidon	100 kg.		13171-21-6
80.	Phosphine (hydrogen phosphide)	100 kg.		7803-51-2
81.	Promurit (1-(3, 4-Dichlorophenyl)-3- triazetio carboxamide)	100 kg.		5836-73-7
82.	1, 3 - Propanesultone	1 kg.		1120-71-4
83.	1 -Propen-2-chole-1, 3-diol diacetate	10 kg.		10118-72-6
84.	Pyrazoxon	100 kg.		108-34-9
85.	Selenium hexafluoride	10 kg.		7783-79-1
86.	Sodium selenite	100 kg.		10102-18-8
87.	Stibine (Antimony hydride)	100 kg.		7803-52-3
88.	Sulfotop	100 kg.		3689-24-5
89.	Sulphur dichloride	1 t		10545-99-0
90.	Tellurium hexafluoride	100 kg.		783-80-4
91.	TEPP	100 kg.		107-49-3
92.	2, 3, 7, 8-' Tetrachlorodibenzo Pdioxin (TCDD)	1 kg.		1746-01-6
93.	Tetramethylenedisulphotetramine	1kg.		80-12-6
94.	Thionazim	100 kg.		297-97-2
95.	Tirpate (2, 4-Dimethyl 1, 3-dithiolane 2-carboxaldehyde omethyl carbomoyloxime)	100 kg.		26419-73-8
96.	Trichlormethane sulphenyl chloride	100 kg.		594-42-3
97.	1-Tri (cyclohexyl) stannyl-1 H-I, 2, 4-triazole	100 kg.		41083-11-8

98.	Triethylenemelamine	10 kg.		51-18-3
99.	Warfarin	100 kg.		81-81-2
Group-2 Toxic Chemicals (Quantity > 1 tonne)				
100.	Acetonel cyanohyrdin (2-cy anopropan-2-01)	200 t		75-86-5
101.	Acrolein (2-Propenal)	20 t		107-02-8
102.	Acrylonitrile	20 t	200 t	107-13-1
103.	Allyl alcohol (2-Propen-l-01)	200 t		107-18-6
104.	Allylamine	200 t		107-11-9
105.	Ammonia	50 t	500 tl	7664-41-7
106.	Bromine	40 t		7726-95-6
107.	Carbon disulphide	20 t	200 t	75-15-0
108.	Chlorine	10t	25 t	7782-50-5
109.	Diphenyl methane di-siocyanate (MDI)	20 t		101-68-8
110.	Ethylene dibromide (1, 2-Dibromomethane)	5 t		106-93-4
111.	Ethyleneimine	50 t		151-56-4
112.	Formaldehyde (Concentration=90%)	5 t		50-00-0
113.	Hydrogen chloride (liquified gas)	25 t	250 t	7647-01-0
114.	Hydrogen Cyanide	5 t	20 t	74-90-8
115.	Hydrogen fluoride	5 t	50 t	7664-39-3
116.	Hydrogen sulphide	5 t	50 t	7783-06-4
117.	Methyl bromide (Bromomethane)	20 t		74-83-9
118.	Nitrogen oxides	50 t		11104-93-1
119.	Propyleneimine	50 t		75-55-8
120.	Sulphur dioxide	20 t	250 t	7446-09-5
121.	Sulphur trioxide	15 t	75 t	7446-H-9
122.	Tetraethyl lead	5 t		78-00-2
123.	Tetramethyl lead	5 t		75-74-1
124.	Toluene di-isocyanate (TDI)	10 t		588-84-9
Group-3 Highly Reactive Chemicals				
125.	Acetylene (ethyne)	5 t		74-86-2

126.	A. Ammonium nitrate (1) b. Ammoni-im nitrate in the 1, form of fertilizer (2)	350 t 1250 t	2500 t	6484-52-2
127.	2, 2 Bis (tert-butyl peroxy) butane (concentration >= 70%)	5 t		2167-23-9
128.	1, 1 Bis (tert-butyl peroxy) cyclohexane	5 t		3006-86-8
129.	Tert-Butyl peroxyacetate (concentration >= 70%)	5 t		107-71-1
130.	Tert-Butyl peroxyisobutyrate (concentration >= 80%)	5 t		109-13-7
131.	Tert-Butyl Peroxyisopropyl carbonate(concentration>= 80%)	5 t		2372-21-6
132.	Tert-Butyl peroxy maleate (concentration >= 80%)	5 t		1931-62-0
133.	Tert-Butyl peroxy pivalate (concentration >= 77%)	50 t		927-07-1
134.	Dibenzyl peroxydicarbonate (concentration >= 90%)	5 t		2144-45-8
135.	Di-sec-butyl peroxydicarbonate (concentration >= 80%)	5 t		19910-65-7
136.	Diethyl Peroxydicarbonate (concentration >= 30%)	50 t		14666-78-5
137.	2, 2-Dihydroperoxyoropana (concentration >= 30%)	5 t		2614-76-8
138.	Di-Isobutryl peroxide (concentration >= 50%)	50 t		3437-84-1
139.	Di-n-propyl peroxydicarbonate (concentration >= 80%)	5 t		16066-38-9
140.	Ethylene oxide	5 t	50 t	75-21-8
141.	Ethyl nitrate	50 t		625-58-1
142.	3, 3, 6, 6, 9, 9-Hexamethyl 1, 2, 4, 5-teroxacyclonane	50 t	50 t	22397-33-7
143.	Hydrogen	2 t	50 t	1333-74-0
144.	Liquid oxygen	200 t		7782-44-7
145.	Methyl ethyl ketone Peroxide (concentration >= 60%)	5 t	5 t	1338-23-4
146.	Methyl isobutyl ketone peroxide (concentration >= 60%)	50 t		37206-20-5
147.	Peracetic acid (concentration >= 60%)	50 t		79-21-0

148.	Propylene oxide	5 t		75-56-9
149.	Sodium chlorate	25 t		7775-09-9
Group-4 Explosive Chemical				
150.	Barium azide	50 t		18810-58-7
151.	Bis (2, 4, 6-trinitro phemy) amine	50 t		131-73-7
152.	Chlorotrinitrobenzene	50 t		28260-61-9
153.	Cellulose nitrate (containing > 12.6% nitrogen)	50 t		9004-70-0
154.	Cyclotetramethylene tetranitramine	50 t		2691-41-0
155.	Cyclotrimethylenetrinitroamine	50 t	121-82-4	
156.	Diazodinitrophenol	10 t	7008-81-3	
157.	Diethylene glycol dinitrate	10 t	693-21-0	
158.	Dinitrophenol, salts	50 t		
159.	Ethylene glycol dinitrate	10 t	628-96-6	
160.	1 -Guanyl-4-nitrosamineoguanyl 1-tetrazene	10 t	109-27-3	
161.	2.2', 4.4', 6.6' -	50 t	20062-22-0	
	Hexamnitrostilbene			
162.	Hydrazine nitrate	50 t	13464-97-6	
163.	Lead azide	50 t	13424-46-9	
164.	Lead styphnate (lead 2, 4, 6-trinitroresorcinoxide)	50 t	15245-44-0	
165.	Mercury fluminate	10 t	628-86-4	
166.	N-Methyl-N, 2, 4, 6 Tetranitroanililne	50 t	479-45-8	
167.	Nitroglycerine	10 t	10 t 55-63-0	
168.	Pentarythritol tetranitrate	50 t	78-11-5	
169.	Picric acid-2, 4, 6 (Trinitrophenol)	50 t	88-89-1	
170.	Sodium Picramate	50 t	831-52-7	
171.	Styphnic acid (2, 4, 6 - Trinitroresorcinol)	50 t	82-71-3	

172.	1, 3, 5 - Triamino-2, 4, 6 - Trinitrobenzene	50 t	3058-38-6	
173.	Trinitroaniline	50 t	26952-42-1	
174.	2, 4, 6 - Trinitroanisole	50 t	606-35-0	
175.	Trinitrobenzene	50 t	25377-32-6	
176.	Trinitrobenzoic Acid	50 t	35860-50-5	
177.	Trinitrocresol	50 t	28905-71-7	
178.	2, 4, 6 - Trinitrophenetole	50 t	4732-14-3	
179.	2, 4, 6 - Trinitrotoluene	50 t	50 t	118-96-7

Part - II

Classes of Chemicals Not Specifically Named In Part I

Sr. No.	Chemicals	Threshold Quantities (tonnes)	
		For application of sub-rules 4, 5 and 7 & 8	For application of sub-rules 9 to 13
1	2	3	4
Group-5 Flammable Chemicals			
1.	Flammable Gases : Chemicals which in gaseous state at normal pressure, and mixed with air become flammable and the boiling point of which at normal pressure is 20 degree C or below;	15 t	200 t
2.	Highly flammable liquids : Chemicals which have a flash point lower than 23 degree C and the boiling point of which at normal pressure is above 20 degree C;	1000 t	50000 t
3.	Flammable liquids : Chemicals which have a flash point lower than 65 degree C and which remain liquid under pressure, where particular processing conditions, such as high pressure and high temperature, may create major accident hazards.	25 t	200 t

Footnotes:

1. This applies to ammonium nitrate and mixture of ammonium nitrate where the nitrogen content derived from the ammonium nitrate is greater than 28% by weight and to aqueous solutions of ammonium nitrate where the concentration of ammonium nitrate is greater than 90% by weight.
2. This applies to straight ammonium fertilizers and to compound fertilizers where the nitrogen content derived from the ammonium nitrate is greater than 28% by weight (a compound fertilizer contains ammonium nitrate together with phosphate and/or potash).

CAS number (Chemical Abstracts Service Number) means the number assigned to the chemical by the Chemical Abstracts Service.

Schedule-4

[See sub-rule 68.-J (1)(b)(i), 1(c)]

Industrial Installation Within The Meaning Of Sub-Rule 1(B)(I)

1. Installation for the production, Processing for treatment of organic or inorganic chemicals using for this purpose, among others:
 - a. alkylation b. amlnation by amonolysis c. carbonylation d. condensation e. dehydrogenation f. esterification g. halogenation and manufacture of halogens h. hydrogenation i. hydrolysis j. oxidation k. polymerization l. sulphmarization m. desulphurization, manufacture and transformation of sulpher containing compounds n. nitration and manufacture of nitrogen containing compounds o. manufacture of phosphorous containing compounds p. formulation of pesticides and of phyamacetial products-pesticides, q. distillation, r. extracting s. solvation t. mixing.
2. Installation for distillation, refining or other processing of petroleum or petroleum products.
3. Installation for the total or partial disposal of solid or liquid chemicals by incheration or chemical decomposition.
4. Installation for the production, processing, or treatment of energy gases for example LPG, LNG, SNG.
5. Installation for the dry distillation of coal or lignite.
6. Installation for the production of metals or non-metals by a wet process or by means of electrical energy.

Schedule-5

Format of A Safety Data Sheet

[See sub-rule 68-J 2(2) and (3)]

1. Identity Of Material

Product Name	Chemical Designation	
Trade Name	Synoymys	
Formula	Lable : Category Class CAS Number	UN Number

Regulated Identification	Shipping Name Codes/Lable	HAZCHEM CODE
	Hazardous Waste Identification Number	
	Hazardous Ingredients	CAS Number
1		
2		
3		
4		

2. Physical And Chemical Properties

Physical State (Gas-Liquid, Solid)	Boiling Point in degree C	Vapour Pressure of 33 degree c mm hg
Appearance	Melting/Freezing Point in degree C	Evaporation rate at 30 degree C
Other Corrosivity, etc.	Specific Gravity	pH

3. Fire and Explosive Hazards Data

Explosion/Flammability	Flash point (deg.) Flash point (deg.)	CLEL UEL	Autoignition Temperature degree C
			TDG Flammability (classification)

4. Reactive Hazards

	IMPACT	(Hazardous Combuation Products)
Stability to	Static Discharge	(Hazardous Decomposition Products)
	Reactivity	(Conditions to avoid)

(Hazardous Polymerisation)	(Conditions to avoid)
	May/May not occur
Compatibility	(Materials to avoid)

5. Health Hazard Data

Routes of Entry Inhalation, sicin, mucuous memberanes

and eye contact

and ingestion)

Effects of Exposure/Symptoms :

LD 50 (in rat) (Orally or percutaneous absorption) LC 50 (in rat) (mg/l/4/hour. (mg/kg body weight)

Permissible Exposure	ppm mg/cu.m	Short term Exposure Limit (STEL)	ppm	mg/cu/m
Threshold Limit Value (TLV) of Aogih	pp mg/cu.m	Odour	ppm	mg/cu/m
Emergency Treatment				

6. Hazard Specification

NFPA Hazard signal	Health	Flammability	Stability	Special
Known Hazards	Water Reactive Material Oxid.iser			Irritant Sensitizer
Combustible Liquid Flammable Material	Organic Peroxide			Carcinogen
Prophoric Material	Corrosive Material			Others (specify)
Explosive Material	Compressed Gas			
Unstable Material				

7. Safe Usage Data

Ventilation	General /Mechanical Local Exhaust
Equipment required	Eyes (specify) Respiratory (specify) Gloves (specify) Clothing (specify) Others (specify)
Precautions	Handling & Storage Others (specify)

8. Emergency Response Data

Equipment required	
	Fire Extinguishing Media
	Special Procedures
	Unusual Hazards
Exposure (Inhalation, skin, and eye contacts pmgestion)	First Aid Measures
Spills	Steps to be taken

9. Additional Information

10. Additional Information

Reference to Books Journals ETC.

11. Firms Name	Standing Packing
Mailing Address	
Telephone Number	
Telex Number	Other
Telegraphic Address	Other
Contact Person in Emergency	Emergency Tel. in Transit Areas

Acronyms and Glossary of terms:

CAS	:	Chemical Abstract Service Registration Number
UN Number	:	United Nations Number
Hazchem Code	:	Emergency Action Code (EAC), allotted by the Joint Committee of fire Brigade Operations, UK
TDG Flammability	:	Transport of Dangerous Goods - Flammability
NFPA	:	National Fire Protection Association, USA
LD50 and LC50	:	represent the dose in mg/kg of body weight and the concentration in mg/1 for 4 hours having lethal effect on 50 and of the animals (rats) treated.
PEL	:	Permissible Exposure Limited as laid down by in the statutes.
TLV	:	Threshold Limit Value as laid down by the American Conference of Government Industrial Hygienists, (ACGIH) USA.
STEL	:	Short Term Exposure Limit as laid down in the statutes or by the ACGIH

Guidelines

All efforts should be made to fill in all the columns. No column should be left blank, in case certain information is not.

Schedule-6

[See Sub-rule 68-J (4)(1)]

Information to Be Furnished Regarding Notification Of

A Major Accident

1. General data Report Number.....
of the Particular accident
 - (a) Name of the site
 - (b) Name and address of the occupier (Also state the telephone/telex number)
 - (c)
 - (i) Registration Number
 - (ii) License Number

(As many have been allotted under any statute) applicable to the site e.g. the Factories Act)
 - (d)
 - (i) Nature of industrial activity (Mention what is actually manufactured, stored etc.)
 - (ii) National Industrial Classification 1987 at the Four digit level

2. Type of major accident

Explosion

Fire

Emission of

Hazardous Chemi

3. Description of major accident

a. Date, shift and hour of the accident.

b. Department/Section and exact place where the accident took place.

c. The process/operation undertaken in the Department/Section where the accident took place. (Attach a flow chart, if necessary)

d. The circumstances of the accident and the hazardous chemical involved.

4. Emergency measures taken and measures envisaged to be taken to alleviate short-term effects of the accident.

5. Cause of the major accident Known (to be specified)

Not known

Information will be supplied as soon as possible.

6. Nature and extent of damage

a. within the establishment.....causalities
killed
injured
Poisoned
persons exposed to the major
 Accident.....
material damage
damage is still present
damage no longer exists

b. Outside the establishment
causalities
killed
injured
Poisoned
persons exposed to the major
 Accident.....
material damage
damage to environment
damage is still present
damage no longer exists

7. Data available for assessing the effects of the accident on persons and environment.

8. Steps already taken or envisaged.

- a. to alleviate medium or long-term office of the accident.
- b. to present recurrent of similar major accident.
- c. Any other relevant information.

Schedule - 7

[See Sub-rule 68-J(7)(1), (8)]

Information to Be Furnished For the Notification of Activities / Sites

Particulars to be included in a notification of site.

1. The Name and address of the occupier making.
2. The full Postal address of the site where the noticeable industrial activity will be carried on.
3. The area of the site covered by the notification and of any adjacent site which is required to be taken into account by virtue of Schedule 2(b) and Schedule 3(b).
4. The date on which it is anticipated that the modifiable industrial activity will commence or if it has already commenced a statement to that effect.
5. The name and maximum quantity liable to be on the site of each hazardous chemical for which notification is being made.
6. Organization structure, namely organization diagram for the proposed industrial activity and set up for ensuring safety and health.
7. Information relating to the site namely: -
 - a. identification of major accident hazards.
 - b. the condition of events which could be significant in bringing one labour,
 - c. a brief description of the measures the ken.
8. Information relating to the site namely -
 - a. a map of the site and its surrounding area to a scale large enough to show.
any features that may be significant in the assessment of the hazard or risk associated with the site;
 - (i) area likely to be affected by the major accident,
 - (ii) Population distribution in the vicinity.
 - b. a scale plan of the site showing the location and quantity of all significant, inventories of the hazardous chemicals,

- c. a description of the processes or storage involving the hazardous chemicals, the maximum amount of such a hazardous chemical in the given process or storage and an indication of the condition under which it is normally held.
 - d. the maximum number of persons likely to be person on site.
9. The arrangement for training of workers and equipment necessary to ensure safety of such workers.

Schedule - 8

[See Sub-Rule 68-J (9)(L)]

Information to Be Furnished In a Safety Report

1. The name and address of the person furnishing the information.

2. Description of the industrial activity:-

- a. site.
- b. Construction design.
- c. Protection zones (explosion protection, . separation distances)
- d. Accessibility of plant.
- e. Maximum number of person working on the site and particularly of those persons exposed to the hazard.

3. Description of the processes, namely:-

- a. technical purpose of the Industrial activity.
- b. Basic principle of the technological process.
- c. Process and safety-related data for individual process stages.
- d. Safety-related types of utilities.

4. Description of the hazardous chemicals, namely:-

- a. Chemicals (Quantities substance data on physical and chemical properties, safety related) data on explosive limits, flash-point thermal stability, toxicological data and threshold limit values, lethal concentrations).
- b. The form in which the chemicals may occur or into which they may be transformed in the event of abnormal condition.
- c. The degree of purity of the hazardous chemical.

5. Information on the Preliminary Hazard Analysis namely:-

- a. Type of accident.

- b. System element of foreseen events that lead to a major accident.
- c. Hazards.
- d. Safety-relevant components.

6. Description of safety-relevant units, among others:-

- a. Special design criteria.
- b. Controls and alarms.
- c. Pressure relief systems.
- d. Quickreliefsystem.
- e. Collection tanks/dump tanks.
- f. Sprinkler system.
- g. Fire protection.

7. Information on the hazard assessment, namely:-

- a. Identification of hazards.
- b. the causes of accidents.
- c. assessment of hazardous according to their occurrence frequency,
- d. assessment of accident consequences,
- e. safety system.
- f. known accident history.

8. Description of information on organizational systems used to carry on industrial activity safety, namely :-

- a. maintenance and inspection schedules.
- b. guidelines for the training of personnel
- c. allocation and delegation of responsibility for plant safety.
- d. Implementation of safety procedures.

9. Information on assessment of the consequences of major accidents, namely:-

- a. assessment of the possible release of hazardous chemical or of energy,
- b. possible disoperation. of released of releases (size of the affected area, health effects, property damage).

10. Information on the mitigation of major accidents, namely:-

- a. fire brigade,
- b. alarm systems,
- c. emergency plan containing system of organization used to fight the emergency, the alarm and the communication routes, guidelines for fighting the emergency, examples of possible accident sequences,
- d. co-ordination with the District Collector or the District Emergency Authority and its off site emergency plan.
- e. Notification of the nature and scope of the hazard in the event of an accident.
- f. Antidotes in the event of a release of a 'hazardous chemical'.

Schedule-8.A

[See Sub-Rule 68-J (12)(1)]

Details to Be Furnished In the On Site Emergency Plan

1. Name and address of persons furnishing the information.
2. Key personnel of the organisation and responsibilities assigned to them in case of an emergency.
3. Outside organisation in involved in annotating during on- site emergency
 - (a) Type of accidents
 - (a) responsibility assigned
4. Details of liaison arrangement between the organization
5. Information on the preliminary between the organization.
 - (a) Type of accidents
 - (b) System elements or events that can lead to a major accident Hazards
 - (c) Safety relevant components
6. Details about the site
 - (a) Location of dangerous substances
 - (b) Seat of key personnel
 - (c) Emergency control room
7. Description of hazardous chemicals at plant site
 - (a) Chemicals (Qualification and toxicological data)
 - (b) Transformation if any which could occur

- (c) Parity of hazardous chemicals.
- 8. Likely dangers to the plant
- 9. Enumerate effects of;
 - (i) Stress and strain and safety and security systems.
 - (ii) fire and explosion inside the plant and effect if any, of fire and explosion out side.
- 10. Details regarding
 - (i) warning, alarm and safety and security systems.
 - (ii) alarm and hazard control plans in line with disaster control and hazard control planning ensuring the necessary technical and organizational precautions.
 - (iii) reliable measuring instrumefats, control units and servicing of such equipments,
 - (iv) precautions in designing of the foundation and load bearing parts of the building.
- 11. Details of communication facilities available during emergency and those required for and off-site emergency.
- 12. Details of fire fighting and other facilities available and those required for an off-site emergency.
- 13. Details first-aid and hospital services available and its adequacy.
- 14. Details of first-aid and hospital services available and its adequacy.

[Sch. 8A Inserted by Noti. No. GRH-2004-73-FAC-2001-L-186-M(2), dt. 30.6.2004 - Guj. Govt. Gaz., Exty., Pt. IV-A, No. 57, dt. 30.6.2004, p. 57-1.]

¹[68-K. Disclosure of information to workers:-

(1) The occupier of a factory involving a 'hazardous process' shall supply to all workers the following information in relation to handling of hazardous materials or substances in the manufactures, transportation, storage and other processes: -

- (a) requirements of Sees. 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 data sheet as per Rule 68-G;
- (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 Operations;

- (h) meaning of various labels and marketing used on the containers of hazardous substances as provided under Rule 68-Q;
- (i) signs or any symptoms likely to be manifested on exposure to hazardous substances and to whom to report;
- (j) measures to be taken by the workers in case of any spillage or leakage of a hazardous substance;
- (k) role of workers vis-a-vis the emergency plan of the factory, in particular and the evacuation procedures;
- (l) any other information considered necessary 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 notice of 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 occupier to supply further information to the workers as deemed necessary.

Footnote:

1. Ins. by Notfn. dt. 15-2-1995

68-L. Disclosure of information to the Chief Inspector. :-

(1) The occupier of every factory involving a hazardous process shall furnish, in writing, to the Chief Inspector, a copy of all the information furnished to the workers.

(2) A copy of compilation of material safety data sheets in respect of hazardous substances used, produced or stored in the factory shall be furnished to the Chief Inspector, and the local Inspector.

(3) "The occupier of every factory involving hazardous process, before complete or partial closure of manufacturing process (other than of a temporary nature) in a factory or in any section or department of a factory, shall dispose- off all hazardous materials, produced or stored in a factory and shall inform in writing to the chief Inspector and the Local Inspector, the information regarding hazardous materials disposed off."

(4) 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.

68-M. Review of the information furnished to workers, etc. :-

(1) The occupier shall review once in every calendar year and modify if necessary, the information furnished under Rules 68-K to 68-L to the workers, and the Chief Inspector.

(2) In the event of any change in the process or operation 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.

68-N. Confidentiality of information. :-

(1) The occupier of a factory involving a 'hazardous shall disclose all Information needed for protecting safety and health of the workers to -

- (a) his workers:
- (b) Chief Inspector.

as required under Rules 68-K and 68-L if the occupier is of the opinion that the disclosure of details regarding the process and formulations shall adversely effect his business Interests he may make a representation to the Chief Inspector stating the reasons for with holding such information. The Chief Inspector shall give an opportunity to the occupier of being heard and pass an order on the representation.

"(2) An occupier, aggrieved by an order of the Chief Inspector passed under sub-rule (1) may prefer an appeal to the State Government, within a period of thirty days from the date of receipt of such, order.

The State Government shall after giving opportunity of being heard to the occupier, pass an order. Any such order passed by the State Government, shall be final.

68-O. Health and safety policy. :-

(1) The occupier of every factory covered under the first Schedule under Sec. 2 (cb) or carrying out processes or operations declared to be dangerous under Sec. 87 of the Act 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 requires the occupiers of any of the factories or class or description of factories to comply with the requirements of sub-rule (1), if, in his opinion, it is expedient to do so.

(3) The health and safety should contain or deal with:

- (a) declared intension 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 assigning the responsibility at different levels; and
- (c) arrangements for making the policy effective.

(4) In particular, the policy shall specify the following:

- (a) arrangements for involving the workers:
- (b) intention of taking 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 at least once in every two years of the status on health, safety and

environment and taking all the remedial measures;

- (f) stating its intention to integrate health and safety, in all decisions including these 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.

(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;

The policy shall be made widely known by :-

- (a) making copies available to all workers including contract workers, apprentices, transport workers, suppliers, etc.
- (b) displaying copies of the policy at conspicuous places, and any other means of communication;

in a language understood by majority of workers.

(7) The occupier shall revise the safety Policy as often as may be appropriate, but it shall necessarily be revised under the following circumstances

- (a) whenever any expansion or modification having implications on safety and health of persons at work is made; or
- (b) whenever new substance(s) or articles are introduced in the manufacturing process having implications on health and safety of persons exposed to such substances.

68-P. Information on industrial wastes. :-

(1) The information furnished under Rules 68-K and 68-L shall include the quantity of the solid and liquid wastes generated per day, their characteristics and the method of treatment such as incineration of solid wastes, chemical and biological treatment of liquid wastes, and arrangements for their final disposal.

(2) It shall also include information on the quality and quantity of gaseous waste discharged through the stacks or other openings and arrangements such as provision of scrubbers, cyclone separators, electrostatic precipitators or similar such arrangements made for controlling pollution of the environment.

(2) The occupier shall also furnish the information prescribed in the sub-rules (1) and (2) to the State Pollution Control Board.

68-Q. Collection, development and dissemination of information:-

(1) The occupier of every factory involving a 'hazardous' shall arrange to obtain to develop information in the form of Material Safety Data Sheet (MSDS) in respect of every hazardous substance or material handled in the manufacture, transportation and storage in the factory. It shall be accessible upon request to a worker for references.

- (a) Every such Material Safety Data Sheet shall include the following information:

- (i) the identity used on the table;
 - (ii) hazardous Ingredients of the substance;
 - (iii) physical and chemical characteristics of the hazardous substances;
 - (iv) the physical hazards of the hazardous substances, including the potential for fire, explosion and reactivity;
 - (v) the health hazards of the hazardous substance, including signs and symptoms of exposure, and any medical conditions which are generally recognised as being aggravated by exposure to the substance;
 - (vi) the primary route(s) of entry;
 - (vii) the permissible limits of exposure prescribed in the Second Schedule under Sec. 41-F 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 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, practices or use of personal protective equipments;
 - (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) The Material Safety Data Sheet in format given in the Schedule V under Rule 68-J and the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1980 under the Environment (Protection) Act, 1986.

(2) Labeling: - Every container of a hazardous substance shall be clearly labelled or marked to identify :

- (a) the contents of the container:
- (b) the name and address of the manufacturer or importer of the hazardous substances;
- (c) the physical and health hazards; and

- (d) the recommended personal protective equipment needed to work safely with the hazardous substance.

68-R. Making available health records to workers. :-

(1) The occupier of every factory involving a 'hazardous process' shall make accessible the health records including the record of worker's exposure to hazardous process or as the case be, the medical records of any worker for the perusal under the following conditions :

- (a) once in every six months or immediately after the medical examination whichever is earlier;
- (b) if the Factory Medical Officer or the Certifying Surgeon as the case' may be, is of the opinion that the worker has manifested signs and symptoms of any notifiable-disease as specified in the Third Schedule 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 Workmen's Compensation;
 - The Director General, Employees State Insurance Corporation;
 - The Director. Employees State Insurance Corporation (Medical Benefits); and
 - The Director General, Factory Advice Service and Labour Institutes.

(2) A copy of the uptodate health records including the record of workers exposure to hazardous process or, as the case may, the medical records shall be supplied to the worker on receipt of an application from him. X-ray plates and other medical diagnostic rep arts may also be made available for reference to his medical petitioner.

68-S. Qualifications, etc. of Supervisors.:-

(1) All persons who are required to supervise the handling of hazardous substances shall possess the following qualifications and experience:

- (a) (i) A degree in 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 organization conducting the training

shall be approved by the DGFASLI or the State Government in accordance with the guidelines issued by the DGFASLI.

68-T. 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 workers;
- (c) The details of pre-employment and periodical medical exam, carried out as aforesaid shall be recorded in the Register in Form No. 32.

(2) No person shall be employed for the first time without a certificate of fitness in Form No. 33 granted by the Factory Medical Officer. If the Factory Medical Officer declare 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 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 worker and communicate his findings to the occupier within 30 days. If the Certifying Surgeon is of the opinion that the worker so examined is required to be taken away from the process for health protection, he will direct the occupier accordingly, who shall not employ the said workers 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 suitably rehabilitated.

(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 worker taken away from employment in any process under sub rule (2) may be employed again in the same process only after obtaining the Fitness Certificate from the Certifying Surgeon and after making entry to that effect In the Health Register.

(6) The worker required to undergo Medical Examination under these rules and for any Medical Survey conducted by or on behalf of the Central or the State Government shall not refuse to undergo such a medical examination.

68-U. Occupational Health Centers. :-

(1) In respect of any factory earring on 'hazardous process' there shall be provided and maintained in good order an Occupational Health Centre with the services and facilities as per scale laid down hereunder :

- (a) For factories employing upto 50 workers -
 - (i) the services of a Factory Medical Officer on retainer-ship basis, in his clinic to be notified by the occupier. He will carry out the pre-employment and periodical

medical examination as stipulated in Rule 68-T and render medical assistance during any emergency;

- (ii) a minimum of 5 persons trained in first-aid procedures amongst whom at least one shall always be available during the working period;
 - (iii) a fully equipped first-aid box.
- (b) For factories employing 51 to 200 workers -
- (i) An Occupational Health Centre having a room with a minimum floor area of 15 sq.m with and walls made of smooth and impervious surface and with adequate illumination and ventilation as well as equipments as per the Schedule annexed to this Rule;
 - (ii) a part-time Factory Medical Officer shall be in over-all charge of the Centre who shall visit the factory at least twice in a week and whose services shall be readily available during medical emergencies;
 - (iii) one qualified and trained dresser-cum-compounder on duty throughout the working period;
 - (iv) a fully equipped first aid box in all the departments,
- (c) For factories employing above 200 Workers: -
- (i) one full-time Factory Medical Officer for factories employing up to 500 workers and one more Medical Officer for every additional 1000 workers or part thereof;
 - (ii) an Occupational Health Centre having at least 2 rooms each with a minimum floor area of 15 sq. metre with floors and walls made of smooth and impervious surface and adequate illumination and ventilation as well as equipment as per the Schedule annexed, to this rule.
 - (iii) there shall be one nurse, one dresser-cum-compounder and one sweeper-cum-ward boy throughout the working period;
 - (iv) the Occupational Health Centre shall be suitably equipped to manage medical emergencies.

(2) The Factory Medical Officer required to be appointed under sub-rule (1) shall have qualification included in schedules to the Indian Medical Degrees Act of 1916 or in the Schedule to the Indian Medical Council Act, 1956 and possess a Certificate of Training in industrial Health of minimum three months duration recognised by the State Government :

Provided that:-

- (i) a person possessing a Diploma in Industrial/or equivalent shall not be required to possess the certificate of training as aforesaid;
- (ii) the Chief Inspector may, subject to such conditions as he may specify, grant exemption from the requirement of this sub-rule, if in his opinion a suitable person possessing the necessary qualification is not available for appointment;
- (iii) in case of a person who has been working as a Factory Medical Officer for a period of less than three years on the date of commencement of this rule, the Chief Inspector

may, subject to the condition that the said person shall obtain the aforesaid certificate of training within a period of three years, relax the qualification.

(3) The syllabus of the course leading to the above certificate, and the organisations conducting the course shall be approved by the Directorate General Factory Advice Service and Labour Institutes or the State Government in accordance with the guidelines issued by the DGFASLI.

(4) Within one month of the appointment of Factory Medical Officer, the occupier of the Factory shall furnish to the Chief Inspector, the following particulars: -

- (a) name and address of the Factory Medical Officer:
- (b) qualifications;
- (c) experience, if any; and
- (d) the sub-rule under which appointed.

Schedule

[Rule 68-U (1) (b) (i)]

Equipments for Occupational Health Centre in Factories

1. A glazed sink with hot and cold water always available.
2. A table with a smooth top at least 180 cm. x 105 cm.
3. Means for sterilizing Instruments.
4. A couch.
5. Two Buckets or containers with close fitting lids.
6. A kettle and spirit stove or other suitable means of boiling water.
7. One bottle of spiritus ammoniac aromaticus (120 ml.)
8. Two medium size sponges.
- 9.
10. Four cakes of toilet, preferably antiseptic soap.
11. Two glass tumblers and two wine glasses.
12. Two chemical thermometres.
13. Two tea spoons.
14. Two graduated (120 ml.) measuring glasses.
15. One wash bottle (1000 cc) for washing eyes.
16. One bottle (one litre) carbolic lotion 1 in 20.
17. Three chairs.
18. One screen.
19. One electric hand torch.
20. An adequate supply of tetanus toxied.
21. Cora, one liquid (60 ml.).
22. Tablets-antihistaminic, antispamedic (25 each 0.)
23. Syringes with needles -2 cc. 5 cc and 10 cc.
24. Two needle holders, big and small.
25. Suturing needles and.

26. One dissecting forceps.
27. One dressing forceps.
28. One Scapals.
29. One stethoscope.
30. Rubber bandage - pressure bandage.
31. Oxygen cylinder with necessary attachments.
32. One Blood Pressure apparatus.
33. One patellar Hammer.
34. Peak-flow meter for lung function measurement.
35. One stomach wash set.
36. Any other equipment recommended by the Factory Medical Officer according to specific need relating to manufacturing process.
37. In addition :-
 1. For factories employing 51 to 200 workers.
 - 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. Injection - morphia, pethidins, atropins, adrenaline, coramine, novocan (2 each).
 - vi. One surgical scissors.
 2. For factories employing above 200 workers.
 - i. Eight plain wooden splints 900 mm x 100 mm x 6 mm.
 - ii. Eight plain wooden splints 350 mm x 75 mm x 6 mm.
 - iii. Four plain wooden splints 250 mm x 50 mm x 12 mm.
 - iv. Two pair artery forceps.
 - v. Injection morphia, pathidins, atropins. adrenaline, coramine, novocan (4 each)
 - vi. Two surgical scissors.

68-V. Ambulance Van. :-

(1) In any factory carrying on 'hazardous process' there shall be provided and maintained in good conditions, a suitably constructed ambulance van equipped with items as per sub-rule (2) and manned by a full-time Driver-cum-Mechanic and a Helper trained in first-aid, for the purpose of transportation of serious cases of accidents or sickness. The ambulance van shall not be used for any purpose other than the purpose stipulated therein and will normally be stationed at or near to the Occupational Health Centre :-

Provided that a factory employing less than 200 workers may make arrangements:-

Ambulance shall have the following equipments:

(a) General:-

- A wheeled stretcher with folding and adjusting devices : with the head of the stretcher

- capable of being tilted upward;
- Fixed suction unit with equipment;
- Fixed oxygen supply with equipment;
- Pillow with case; Sheets; Blankets; Towels; Emesis bag; Bed pan; Urinal; Glass.

(b) Safety equipment :-

- Flares with life of 30 minutes; floodlights;
- Flash lights; Fire extinguisher dry powder type;
- Insulated gauntlets

(c) Emergency care equipment :-

(i) Resuscitation

- Portable suction unit; portable oxygen units;
- Bag Valve-mask, hand operated artificial ventilation unit;
- Airways; Mouth gags; Tracheostomy adapters;
- Short spine board; 1. V. Fluid with administration unit;
- B.P. Manometer, - Cuff; Stethoscope,

(ii) Immobilization: -

- Long and short padded boards: Wire ladder splints;
- Triangular bandage : - Long and short spine boards,

(iii) Dressings: -

- Gauze Pads 100 mm x 100 mm - Universal dressing 250 mm x 900 mm
- Roll of aluminium foils-Soft roller bandages 15 cm x 5 Mts.; - Adhesivetape in 75 mm; - safety pins;
- Bandage sheets; - Burn sheet

(iv) Poisoning: -

- Syrup of Ipecac - Activated Charcoal pre packeted in dozes : -Snake - Snake-bite kit;
- Drinking water

(v) Emergency medicines :-

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

68-W. Decontamination facilities. :-

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

- (a) Fully equipped first aid box;
- (b) Readily accessible means of water for washing by workers as well as for dranching 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 or part thereof.	2 + 1 for every additional 50
(iii) Between 201 to 500 workers or part thereof.	6+1 for every additional 100
(iv) 501 workers and above	8+1 foor every additional 200 or part thereof;

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

68-X. Issue of guidelines. :-

For the purpose of compliance with the requirements of sub-sees. (1), (4) and (7) of Sec. 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 maybe based on National Standards. Codes of Practice or recommendations of International Bodies such as IKO and WHO,

68-Y. Safety Committee. :-

- (1) For every factory: -
 - (a) which carries on any process or operation declared to be dangerous under Sec. 87 of the Act; or
 - (b) which carries on 'hazardous process' as defined under Sec. 2 (cb) of the Act;

there shall be a Safety Committee.

- (2) The representatives of the management on Safety Committee shall include:-
 - (a) a Senior Official, who by his position in the organisation can contribute effectively to the functioning of the committee, shall be the Chairman;

- (b) a Safety Officer and a Factory Medical Officer wherever available and the Safety Officer in such a case shall be the Secretary of the Committee;
 - (c) a representative each from the production, maintenance and purchase departments.
- (3) The workers' representatives on this Committee shall be elected by the workers.
- (4) The tenure of the Committee shall be two years.
- (5) Safety Committee shall meet as often as necessary but atleast once in every quarter. The minutes of the meeting shall be recorded and produced before the Inspector on demand.
- (6) Safety Committee shall have the right to be adequately and suitably informed of:-
- (a) potential safety and health hazards to which the workers may be exposed at work place;
 - (b) data on accidents as well as data resulting from surveillance of the working environment and of the health of workers exposed to hazardous substances so far as the factory is concerned.

provided that the Committee undertakes to use the data on a confidential basis and solely to provide guidance and advice on measures to improve the working environment and the health and safety of the workers.

- (7) The functions and duties of the safety committee shall include -
- a) assisting and co-operating with the management in achieving the aims and objectives outlined in the 'Health and Safety Policy' of the occupier;
 - (b) dealing with all matters concerning health, safety and environment and to arrive at practicable solutions to 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 and identifying causes of accidents;
 - (g) looking into any complaint made on the likelihood of an imminent danger to the safety and health of the workers and suggesting corrective measures; and
 - (h) reviewing the implementation of the recommendations made by it.
- (8) Where owing to the size of the factory, or any other reason, the functions referred to in sub-rule (7) cannot be effectively carried out by the Safety Committee, it may establish sub-committees as may be required to assist it.]

Chapter V

Rule Prescribed Under Sub-Sec. (2) of Sec. 42

¹[69. **Washing Facilities. :-**

(1) This rule shall come into force, in respect of any class or description of factories on such date as the State Government may, by notification in the Official Gazette appoint in this behalf.

(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 ²[and shall be located in the vicinity of latrines and urinals.]

³[Such facilities shall be conveniently located near the rest or lunch-rooms in factories where such rest-rooms or lunch-rooms are required to be provided except in the case of factories which have already provided these facilities on or before the 16th December, 1954. The washing facilities shall be so enclosed or screened as to ensure privacy.]

(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 61 centimeters, 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 to which the aforementioned 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 persons 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 not 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	5 plus one tap for every 50 or fraction

not exceeding 500

of 50.

Exceeding 500

11 plus one tap for every 100 or fraction of 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 27.3 liters 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 smaller quantity not being less than 4.5 liters per day for every person employed in the factory.]

Footnotes:

1. Rule 69 came into force with effect from 20th December, 1950 vide G.N.L & H.D. No. 41/481111, dated 20th December, 1950.
2. Inserted vide G.N.E. and L.D., FAC 1060/132 24-1. dt. 21st January, 1964.
3. These words were added by G.N., D.D. No. 264/48, dt. 7th October, 1955.

Rule Prescribed Under Secs. 43 and 112

¹ [69-A. Facilities for storing and drying clothing. :-

All classes of factories mentioned in the Schedule annexed hereto shall provide facilities for keeping clothing not worn during hours and for the drying of wet clothing. Such facilities shall include the provisions of separate rooms, pegs, lockers or other arrangement approved by the Chief Inspector.

Schedule

Engineering Workshop.

Chemical Factories.

Iron and Steel Works.

Motor Garrages.

Oil Mills.

Tanneries.]

Footnote:

1. Added by G.N., D.D. No. 264/48, dt. 7th October, 1955.

Rule Prescribed Under Sub-Sec. (1) of Sec. 45.

¹[70. First aid appliance. :-

The first aid boxes or cup-boards shall be distinctively marked with a red cross on white background and shall contain the following equipment: -

- A. For factories in which mechanical power is used and the number of persons employed

does not exceed ten, or in the case of factories in which mechanical power is not used and the number of persons employed does not exceed fifty, each first-aid box or cup-board shall contain the following equipment :

- (i) Six small size sterilized dressings,
 - (ii) Three medium size sterilized dressings.
 - (iii) Three large size sterilized dressings,
 - (iv) Three large size sterilized burn dressings.
 - (v) One (60 ml.) bottle of cetrimide solution (1 per cent) or a suitable antiseptic solution.
 - (vi) One (60 ml.) bottle of mercurochrome solution (2 per cent) in water.
 - (vii) One (30 ml.) bottle containing Sal-volatite having the dose and mode of administration indicated on the label.
 - (viii) One pair of scissors.
 - (ix) One roll of adhesive plaster (2 cms x 1 meter)
 - (x) Six pieces of sterilised eye pads in separate sealed packets,
 - (xi) A bottle containing 100 tablets (each of 5 grains) of aspirin or any other analgesic.
 - (xii) Polythene wash bottle (1/2 litre i.e., 500 cc.) for washing eyes. (xiii) A snake-bite lancet
 - (xiv) One 30 (ml.) bottle containing potassium permanganate crystals.
 - (xv) One copy of first aid leaflet issued by the Directorate General of Factories Advice Service and Labour Institutes, Government of India. Bombay.
- B. For factories in which mechanical power is used and in which number of persons, employed exceeds ten but does not exceed fifty, each first-aid box or cup-board shall contain the following equipment :-
- (i) Twelve small size sterilized dressings.
 - (ii) Six medium size sterilized dressings.
 - (iii) Six large size sterilized dressings.
 - (iv) Six large size sterilized burn dressings.
 - (v) Six (15 gm.) packets of sterilized cotton wool.
 - (vi) One (120 ml.) bottle of cetrimide solution (1 per cent) or a suitable antiseptic solution.
 - (vii) One (120 ml.) bottle of mercurochrome solution (2 per cent) in water.
 - (viii) One (60 ml.) bottle containing Sal-volatile having the dose and mode of administration indicated on the label.
 - (ix) One pair of scissors.

- (x) Two rolls of adhesive plaster (2 cms x 1 meter)
 - (xi) Eight pieces of sterilized eye pads in separate sealed packets.
 - (xii) One dozen safety pins.
 - (xiii) A bottle containing 100 tablets (each of 5 grains) of aspirin or any other analgesic,
 - (xiv) One polythene wash bottle (1/2 litre i.e., 500 c.c.) for washing eyes,
 - (xv) A snake-bite lancet.
 - (xvi) One (30 ml.) bottle containing potassium permanganate crystals.
 - (xvii) One copy of the First aid leaflet issued by the Directorate General of Factory Advice Service and Labour Institutes, Government of India, Bombay.
- C. For factories employing more than fifty persons, each first-aid box or cup-board shall contain the following equipment :-
- (i) Twenty-Four small sterilized dressings.
 - (ii) Twelve medium size sterilized dressings.
 - (iii) Twelve large size sterilized dressings.
 - (iv) Twelve large size sterilized burn dressings.
 - (v) Twelve (15 gm.) packets of sterilized cotton wool.
 - (vi) One (200 ml.) bottle of cetrimide solution (1 per cent) or a suitable antiseptic solution.
 - (vii) One (200 ml.) bottle of mercurochrome (2 per cent) solution in water.
 - (viii) One (120 ml.) bottle of Sal-volatile having the dose and mode of administration indicated on the label.
 - (ix) One pair of scissors.
 - (x) One roll of adhesive plaster (6 cms x 1 meter)
 - (xi) Two rolls of adhesive plaster (2 cms x 1 meter)
 - (xii) Twelve pieces of sterilized eye pads in separate sealed packets.
 - (xiii) A bottle containing 100 tablets (each of 5 grains) of aspirin or any other analgesic.
 - (xiv) One polythene wash bottle (500 c.c.) for washing eyes.
 - (xv) Twelve roller bandages 10 cms. wide.
 - (xvi) Twelve roller bandages 5 cms. wide.
 - (xvii) Six triangular bandages.

- (xviii) A supply of suitable splints.
- (xix) Two packets of safety pins.
- (xx) Kidney tray.
- (xxi) A snake-bite lancet.
- (xxii) One (30 ml.) bottle containing Potassium Permanganate crystals.
- (xxiii) First-aid leaflet issued by the Directorate General of Factory Advice Service and Labour Institutes, Bombay:

Provided that items (xiv) to (xx) both 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 Sec. 45 is separately provided.
- D. In lieu of the dressings required under items (i) and (ii), there may be substituted adhesive wound dressings approved by the Chief Inspector of Factories and other equipment of medicines that may be considered essential and recommended by the Chief Inspector of Factories from time to time.]

Footnote:

1. Subs, by Notfn. No. KSHS-4575/FAC-U69-260/56-T, dt. 17-6-1972.

¹[70-A Notice regarding first-aid. :-

(1) A notice containing the names of the persons working within the precincts of the factory who are trained in first-aid treatment and who are incharge of the first-aid boxes or cupboards shall be posted in every factory at a conspicuous place and near each such box or cupboard. 'The notice shall also indicate workroom where the said person shall be available. The name of the nearest hospital and its telephone number shall also be mentioned prominently In the said notice.]

Footnote:

1. Added by G.N.. D.D.. No. 264/48, dt. 7th October, 1955.

Rule Prescribed Under Sub-sec. S (4) of Sec. 45

¹[71. Ambulance Room.:-

(1) This rule shall come into force, in respect of any class or descriptions of factories, on such dates as the State Government may, by notification in the Official Gazette, appoint in this behalf.

(2) The ambulance room or dispensary shall be incharge of a qualified medical practitioner assisted by at least one qualified nurse and such sub-ordinate staff as the Chief Inspector direct.

²Explanation :- For the purpose of this sub-rule "Qualified Medical Practitioner" means a person holding a qualification granted by an authority specified in the schedule to the Indian Medical Degrees Act, 1916 or in the schedule to the Indian Medical Council Act, 1956 and includes a person having qualification of B.A. M.S. (Bachelor of Ayurvedic Medicine and Surgery) or G.F. A.M. (Graduate of the Faculty of Ayurvedic Medicine) who has worked for a period of not less than six months as a houseman

in Surgery and Emergency Department of an allopathic hospital.]

³[(2-A) There shall be displayed in the ambulance room or dispensary 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.]

⁴[(3) The ambulance room or dispensary shall be separate from the rest of the factory and shall be used only for the purpose of the first aid treatment and rest. It shall have a floor area of at least 24 sq. meters and smooth, hard and impervious walls and floors shall be adequately ventilated and lighted by both natural and artificial means. An adequate supply of wholesome drinking water shall be laid on and room shall contain atleast :-

- (i) A glazed sink with hot and cold water always available.
- (ii) A table with a smooth top atleast 180 cms x 105 cms.
- (iii) Means for sterilizing instruments,
- (iv) A couch.
- (v) Two stretchers,
- (vi) Two buckets or containers with close fittings 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 mm x 100 mm x 6 mm
- (x) Twelve plain wooden splints 350 mm x 75 mm x 6 mm
- (xi) Six plain wooden splints 250 mm x 50 mm x 12 mm.
- (xii) Six woolen blankets.
- (xiii) Three pairs artery forceps.
- (xiv) One bottle of spiritus Ammonia Armaticus (120 ml.)
- (xv) Smelling salts (60 gms.).
- (xvi) Two medium size sponges.
- (xvii) Six hand towels,
- (xviii) Four "Kidney" trays.
- (xix) Four cakes of toilet, preferably antiseptic soap,
- (xx) Two glass tumblers and two wine glasses.
- (xxi) Two clinical thermometers.
- (xxii) Tea spoons-two.

- (xxiii) Graduate (120 ml.) measuring glass-two,
- (xxiv) Minimum measuring glass-two.
- (xxv) One wash bottle (1000 c.c.) for washing eyes,
- (xxvi) One bottle (one litre) carbolic lotion 1 in 20.
- (xxvii) Three chairs,
- (xxviii) One screen,
- (xxix) One electric hand torch.
- (xxx) For first-aid boxes or cupboard stocked to the standards prescribed under C of Rule 70.
- (xxxi) An adequate supply of anti-tetanus toxoid.
- (xxxii) Injections-Morphia. Pethidine, Atropine, Adrenaline, Coramine, Novocam-6 each.
- (xxxiii) Coramine liquid (60 ml.)
- (xxxiv) Tablets-antihistaminic, antispasmods (25 each)
- (xxxv) Syringes with needles-2 c.c, 5 c.c, 10 c.c, 50 c.c
- (xxxvi) Surgical scissors-three,
- (xxxvii) Needle holder,
- (xxxviii) Suturing needles and materials,
- (xxxix) Dissecting forceps-three,
- (xi) Dressing forceps-three,
- (xii) Scalpels-three,
- (xiii) Stethoscope-one.
- (xiiii) Rubber bandage-pressure bandage,
- (xiiv) Oxygen cylinder with necessary attachments.]

(4) The occupier of every factory to which these rules apply shall for the of removing serious cases of accident or sickness provide in the pemises and maintain in good condition a suitable conveyance unless he has made arrangements for obtaining such a conveyance from a hospital.

(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.]

Footnotes:

1. Rule 71 came into force in respect of every factory wherein more than five hundred workers are employed with effect from 20th December, 1950 vide G.N.L.. and H.D. No. 44/48-1V, dt. 20-

12-1950.

2. Explanation to sub-rule (2) of R. 71 inserted by No. KH-SH-4575/FAC-1169-26056-T, dt. 17-6-1972.
3. Rule 71(2-A) inserted by E. & L.D., No. KH-SH 853/FAC-1164-3510-T, dt. 18-10- 1968.
4. Sub-rule (3) substituted by E. & L.D.. No. KH-SH 4575/FAC-I 169-26056-T, dt. 17-6- 1972.

Rules 72 to 78 Prescribed Under Sec. 46

²[72. Canteens. :-

¹(1) Rules 72 to 78 shall come into force in respect of any class or description of factories on such dates as the State Government may, by notification in Official Gazette, appoint in this behalf.

(2) The occupier of every factory wherein more than 250 workers are ordinarily employed and which is specified by the State Government by a notification in this behalf, shall provide, in or near the factory, an adequate canteen according to the standards prescribed in the Rules. The canteen shall be available

for the use of the workers within six months from the date of such notification:

Provided that the State Government may for sufficient reasons, from time to time by an order in writing, extend the said period in respect of any specified factory.

(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 15.2 metres from the 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 reasonable 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 the 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 1.2 metres from the floor shall be made of smooth and impervious material; 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 of 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 stair cases 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 lime-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 the 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 shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance. Suitable arrangements shall be made for the collection and disposal of garbage.]

Footnotes:

1. (1) Rule 72 came into force with effect from 20th December, 1950 vide G.N.L. and H.D. No. 44-48-V, dt. 20th December. 1950 in respect of the factories specified in the enclosed.
2. Rule 72 came into force with effect from 12th April, 1951 vide G.N.L, and H.D. No. 44/48, dt. 12th April. 1951 in respect of (1) Wadi Bunder Installation of Messers Burmash Shall Oil, Storage and Distributing Company of India Ltd., Bombay, and (2) Sew Installation oiMessers Caltex (India) Ltd, Bombay.

73. 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; after the percentage of workers to be accommodated.

- (2) 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 0.9 square metres per diner to be accommodated as prescribed in sub-rule (1) :

Provided that in the case of factories in existence at the date of the commencement of the Act, where it is impracticable, owing to the lack x)f space to provide 10 square feet of floor area for each person, such reduced floor area per person shall be provided as may be approved in writing by the Chief Inspector.

- (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, stools, chairs or benches shall be available for the number of diners to be accommodated as prescribed in sub-rule (1).

74. 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 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 equipments.

¹[(3) Where the canteen is managed by a Co-operative Society registered under the Bombay Co-operative Societies Act, 1925, 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 Cooperative Society.]

Footnotes:

1. Sub-rule (3) was inserted vide G.N., D.D. No. 44/48, dt. 10th November, 1954.

75. Prices to be displayed. :-

The charge per portion of food stuff, beverages and any other item served in the canteen shall be conspicuously displayed in the canteen.

76. Accounts. :-

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

(2) The accounts pertaining to the canteen shall be audited, once every twelve months, by registered accountants & auditors. The balance sheet prepared by the said 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:

¹[Provided further that where the canteen is managed by the Co-operative Society registered under the Bombay Co-operative Societies Act, 1925 the accounts pertaining to such canteen maybe audited in accordance with the provisions of the Bombay Co-operative Societies Act, 1925.]

Footnote:

1. This proviso was added by G.N.. D.D. No. 44/48, dt. 15th January. 1954.

77. 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 foodstuffs to be served in the canteen;
- (b) the arrangement of the menus;
- (c) times of meals in the canteen; and
- (d) any other matter pertaining to the canteen as may be directed by the Committee :

¹[Provided that where the canteen is managed by a Co-operative Societies Act, 1925, it shall not be necessary to appoint a Canteen Managing Committee.]

(2) The Canteen Managing Committee shall consist of an equal number of persons nominated by the occupier and 3 [elected, in the case where there is a Joint Committee constituted under the Bombay Industrial Relations Act, 1946 or any other Committee constituted under any law for the time

being in force consisting of representatives of an employer and workers in a Factory, by the members of such Joint Committee or of such other Committee representing the workers, and in any other case, by the workers themselves.]

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.

(3) The Manager shall in consultation with the members of the Joint Committee, if any, determine and supervise the procedure for election to the Canteen Managing Committee.

(4) Canteen Managing Committee shall be reconstituted every two years; the previous Managing Committee holding office till such time as the new Committee takes charge.

Footnote:

1. Substituted vide C.N.D. and S.W.D. No. FAC/155, dt. 20th April. 1957.

¹[78. Foodstuffs to be served and price to be charged. :-

(1) The Chief 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 portions 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 charge to be made for such food, drink or other items the following 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; and
- (e) the interest on the amounts spent on the provision and maintenance of furniture and equipment provided for the canteen;
- ²[(f) the cost of fuel required for cooking or heating food stuffs or water; and
- (g) the wages of the employees serving in the canteen and the cost of uniforms. If any, provided to them];

Provided that where the canteen is managed by a Co-operative Society registered under the Bombay Co-operative Societies Act, 1925 such Society may include in the charges to be made for any such food drink or other item served, a profit upto 5 per cent on its working capital employed in running the canteen.]

³[(3) The food stuffs to be served in the canteen or in the dining hall shall be handled by only such member of the canteen staff as has been certified to be medically fit by the Factory Medical Officer or certifying Surgeon after medical examination of such member. The medical examination shall be

undertaken annually and shall include :

- (i) routine blood examination,
 - (ii) routine and bacteriological testing of faces and urine for germs of dysentery and typhoid fever,
 - (iii) any other examination including chest X-ray which may be considered necessary by the Factory Medical Officer or the certifying Surgeon.
- (4) Any person who in the opinion of the Factory Medical Officer or the Certifying Surgeon unsuitable for employment which may involve handling of food-stuffs in the canteen or in dining hall on account of possible risk to the health of others shall not be so employed.]

Footnote:

1. Substituted vide G.N.D. & S.W.D. No. FAC/1155. dt. 29th April, 1957.
2. Ins. by Notfn. dt. 15-2-1995 115-2-1995].
3. Ins. by. Notfn. No. KH-SH-875 FAC-1274-50572-T dt. 6-12-1975 Guj. Govt. Gaz., Pt. 1-1 dt. 11-12-1975 p.4487

Rule Prescribed Under Sec. 47

¹[79. Shelters, rest-rooms and lunch-rooms. :-

(1) This rule shall come into force, in respect of any class or description of factories, on such dates as the State Government may, by notification in the Official Gazette, appoint in this behalf.

The shelters, or rest rooms and lunch rooms shall conform to the following standards: -

- (a) The building shall be soundly constructed and all the walls and roofs shall be of suitable heat resisting materials and shall be waterproof. The floor and walls to a height of 91.4 centimetres 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 12 feet from floor level to the lowest part of the roof and there shall be at least 1.1 square metres 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 existing at the date of commencement of the Act, where it is impracticable, owing to lack of space to provide 12 square feet floor area for each person, such reduced floor area per person be provided as may be approved in writing by the Chief Inspector:

²[Provided further that in the case of rooms in buildings in existence at the date of the coming into force of this rule which have been or are intended to be adapted for use as shelters or rest rooms, as the case may be, the Chief Inspector may approve the rooms having such reduced height as may in his opinion be reasonable in the circumstances of the case on such conditions as may be deemed expedient.]

- (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 or benches with back rests.
- ³[(da) 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, buildings and precincts thereof in a clean and tidy condition.

Footnotes:

1. Rules 79 came into force in respect of every factory where in more than one hundred and fifty workers are ordinarily employed with effect from 20th December, 1950, vide G.N. Labour and Housing Department No. 44/48-VI, dated 20th December, 1950.
2. This proviso was added by G.N D.D. No. 44/48. dated 9th January, 1956.
3. Clause (da) was added by G.N. D.D. No. 264/48, dated 7th October, 1955

Rules Prescribed Under Sub-Sec. (3) of Sec. 48

¹[80. Creches. :-

Rules ²[80 to 83-A], shall come into force in respect of any class or description of factories, on such dates as the State Government may, by notification in the Official Gazette, appoint in this behalf.

(2) The creche shall be conveniently accessible to the mothers of the children accommodated therein and so, far as is reasonably & practicable it shall not be situated in close proximity to any part of the factory where obnoxious fumes, dust or odours are given off or in which excessively noise 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 3.7 metres from the floor to the lowest part of the roof and there shall be not less than 11.9 square metres of floor area for each child to be accommodated.

³[Provided that in the case of rooms in buildings in existence at the date of the coming into force of this rule which have been or are intended to be adopted for use as a creche, the Chief Inspector may approve the rooms having such reduced height as may in his opinion be reasonable in the circumstances of the case on such conditions as may be deemed expedient.]

(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 beddings made available and 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 suitably 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 no sufficient space available for the provision of such a play-ground.

Footnotes:

1. Rules 80 to 83 came into force in respect of every factory where in more than fifty women workers are ordinarily employed and when works for more than 180 working days in a year vide G.N.L. and H.D. No. 44/48. VII, dated 20th December, 1950.
2. The figures and letter substituted vide G.N.L and S.W.D. No. FAC 1856-G, dated 19th September. 1957.
3. This proviso was added by G.N.D.D. No. 44/48. dated 9th January, 1954. Substituted with revised Rule 83 by C.NL & H.D. No. 44/48, dated 1st May, 1952.

81. Wash Room. :-

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 standard :-

- (a) The floor and internal walls of the room to a height of 91.4 centimetres shall be so laid or finished as to provide a smooth impervious surface. The room shall be adequately lighted and the floor shall be effectively drained and 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 a 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.

82. Supply of milk and refreshment. :-

At least 284.4 milliliters 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 two intervals of at least fifteen minutes each (other than those allowed under Sec. 55) to feed the child. For children above two years of age there shall be provided in addition an adequate supply of wholesome refreshment.

83. Creche Staff. :-

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

83-A. Qualifications of a woman incharge. :-

(1) Except as provided in sub-rule (2) no woman shall be appointed under Rule 83 as a woman incharge of a creche after the 1st June 1952 unless she possesses the Bombay Provincial Nurses' Council's Mid-wifely qualification or produces a certificate that she has undergone training for a period of not less than 18 months in a hospital, maternity home or nursing home approved in this behalf by the ¹[Chief Inspector of Factories], or produces a certificate that she has received training for a

preprimary teacher in an institution approved by the¹[State Government.]

(2) The provisions of sub-rule (1) shall not apply in the case of a woman, who is incharge of a creche in a factory on the 1st June, 1952.

²[Rule under Sections 49(2), 50 and 112 have been prescribed by GNL and H.D. No. 44/48, dated 7th August, 1952]. .

Footnotes:

1. Added vide G.N.L. & S.W.D. No. FAC. 1856-J. dated 19th September, 1957.
2. The Welfare Officers (Recruitment and Condition of Service) Rules, 1952 prescribed under Sec. 49.

¹Rule Prescribed Under Clause (a) of Sec. 50

²[x x x]

Footnotes:

1. Inserted by G.N., D.D. No. 44/48. dated 15th May, 1953.
2. Rule 83-B deleted by Notfn. dt. 15.2.1995.

Chapter VI

Working Hours of Adults

Rule Prescribed Under Sub-Sec. (2) of Sec. 53

84. Compensatory holidays. :-

(1) Except in the case of worker engaged in any work which for technical reasons must be carried on continuously throughout the day, the compensatory holidays to be allowed under sub-sec. (1) Sec. 53 of the Act shall be so spaced that not more 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 date thereof, at the place at which the Notice of Periods of Workers 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 the holiday.

(3) Any compensatory 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. 12 :

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 the workers in the factory the particulars required for the enforcement of section 53, 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 this 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.

¹Rules Prescribed Under Sub-Section (2) of Sec. 58 and Sec.112.

²84-A. Factories exempted under Sec. 58. :-

(1) The printing presses attached to the newspaper offices shall be exempted from the provisions of sub-sec. (1) of Sec. 58, subject to the following conditions, namely :-

In such printing press -

- (i) the workers of each relay shall bear a badge of distinct colour which will identify the worker of one relay from that of the, other;
- (ii) the colour of the badge to be worn by the workers of each relay shall be specified in the notice of periods of work required to be displayed and correctly maintained under sub-sec. (1) of Sec. 61 and in the copies of the notice to be sent to the Inspector under sub-sees. 9 and 10 of the said section;
- (iii) a flag or light having the same colour as that of the badge to be worn by the workers of any relay actually at work shall be displayed during the time of actual working of one or more relay in the departmental concerned;
- (iv) each worker engaged in the work carried on by means of overlapping shifts shall be in possession of an identity card. The identity card shall be supplied to the worker by the factory management free of costs and shall bear the photograph of the workers his full name, signature or thumb impression and visible identification mark and the signature of the Manager.

(2) ³[xxx]

Footnotes:

1. Amended by G.N.L and H.D. No. 44/48, dated 10th January, 1951.
2. Inserted vide G.N.L and H.D. No. 44/48, dated 29th September 1953, 6150-84-A was inserted, vide GNL & HD No. 44/48 of 15th of August.
3. Sub-rule (2) of Rule 84-A. dated vide G.N., E. & L.D. No. FAC. 1060/13224-1, dated the 21st January 1964.

Muster Roll Prescribed Under Sub-Sec. (4) of Sec. 59.

85. Muster-roll for exempted factories. :-

¹[The Manager of every factory

- (a) which is exempted under Sec. 5, or
- (b) in which workers are exempted under Sec. 64 or Sec. 65, from the provision of Sec. 51 or Sec. 54, shall keep a muster roll in Form No. 13 showing the normal piece work rate of pay, or the rate of pay per hour, of all the-exempted workers in the factory.]

In this Muster roll: -

shall be correctly entered the extent of overtime worked by each worker together with the overtime earnings in respect thereof and the dates of the payment of such earning. The muster roll in Form No. 13 shall always be available and produced for inspection whenever required by an Inspector.

Footnote:

1. Substituted for the words beginning with the words, "The manager" and ending with the words, "exempted employees" vide G.N. G.N., D.D. No. 44/48, dated the 26th February 1954.

¹**[85-A. Overtime slips. :-**

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

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

Footnote:

1. Inserted vide G.N., L & S.W.D., No. FAC. 1158-J, dated 5th November, 1957.

Rule Prescribed Under Sec. 60

86. Double employment of workers.:-

(a) The Inspector 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 forty-eight 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 a Register of such workers permitted to work in more than one factory.

Notice Prescribed Under Sub-Sec. (8) of Sec. 61

87. Notice of periods of work for adults. :-

The notice of periods of work for adult workers shall be in Form No. 14. Register Prescribed Under Sub-Sec. (2) of Sec. 61

88. Register of adult workers. :-

The register of adult workers shall be in Form No. 15. ¹[This register shall be written up afresh each year and shall be preserved for a period of twelve months.]

Footnote:

1. Added vide G.N.L & H.D., No. 44/48-1, dated 22nd August, 1951.

¹**[Rules 89 to 91 Prescribed Under Sec. 64**

89. Persons defined to hold positions of supervision or managements or confidential position.:-

The persons specified in the Schedule annexed to this rule shall hold positions of supervision or management or to be employed in a confidential position in the factory.

Footnote:

1. Rules 89-91 inserted by Notfn. No. KH-SH-1381/FAC-1173-73096-T, dt. 28-10 1974, G.G. Gaz., Pt. I-L, dt. 7.11.1974, p. 4028

Schedule

**List of persons defined to hold positions of supervision or management in factories
I—all factories**

Manager, Assistant Manager, Labour Officer, Welfare Officer, Department Heads and Assistants Engineer and Certified Assistants, Electrical Engineer, Head Storekeeper and Assistants, Boiler Serang or such Boiler Attendants who are incharge of battery of boilers and are only required to do supervisory work. Technical Experts, Techologists.

II—Engineers Workshops

Foremen. Inspectors. Chargemen. Workshop Overseers (In addition to persons In the List "I—All Factories" above).

III—Spinning And Weaving Mills

Engineer Department

Foremen Mechanics.

Spinning Departments

Jobbers or Muccadams, Petrolmen.

(Note - Spinning Department shall, for the purpose of these rules be deemed to include also the blowing, carding, drawing and frame depart- ments.)

Weaving Department

Jobbers, Overseers, or Muccadams, Patrolmen

(Note - Weaving departments shall, for the purpose of these Rules be deemed to include the preparatory departments of winding, warping and sizing.)

Dyeing, Bleaching, Folding, Calendering and Cloth Printing Departments.

Jobbers, Overseers of Muccadams. (In addition to persons in the List "I-All Factories" above).

90. List to be maintained of persons holding confidential position of super vision of management. :-

A list showing the names and designation of all persons in a factory holding confidential position or position of supervision and management in that lactory snail be maintained in every factory.

91. Exemption of certain adult workers. :-

Adult workers engaged in factories specified in column 3 of the Schedule annexed to these rules on the work specified in column 4 of the said schedule shall be exempted from the provisions of the sections of specified in column 5 subject to the conditions, if any specified in column 6 of the said Schedule:

Provided that:-

- (a) no female adult worker shall be required or allowed to work for more than nine hours in any day.
- (b) except in the case of urgent repairs:-
 - (1) no male adult worker shall be required or allowed to work for more than ten hours in any day;
 - (2) no male adult worker shall be required or allowed to work in any quarter for more than fifty hours overtime on weekly limits;

Schedule

Sr. No.	Section of the Act Empowering grant of exemption	Class of factory	Nature of Exempted work	Extent of exemption	Conditions
1.	64(2)(a) and 64(31)	All factories	Urgent repairs (urgent repairs shall mean work to be done to machinery or plant but only so far as may be necessary to avoid serious Interference with the ordinary working of the undertaking).	Sees. 51. 52. 54, 55, 56 and 61.	<p>(a) Unless the Inspector gives permission in writing for reporting otherwise than as herein laid down, employment of persons on urgent repairs, the management-</p> <p>(i) shall send within twenty four hours of the commencement of work on urgent repairs written notice to the Inspector describing briefly the nature of the urgent repairs and the probable period of their duration, and</p> <p>(ii) shall send weekly, during the continuance of the work on urgent repairs, a statement giving of the names of all persons who have worked for more than nine hours in any one day or for more than forty eight hours of the preceding week In a factory-Such statement shall also show total number of hours worked each day of the week,</p> <p>(b) If the Inspector is of the opinion that, any work being carried on or likely</p>

					to be canted on in a factory as "urgent repairs" Is not urgent repairs the Inspector shall serve on the manager, as order to that effect and the manager shall in respect of such work not allow any worker to c; work In contravention of the fee provisions of Sec, 51, 52, 54, 56 and shall comply with Sec. 61.
2.	64(2) 64 (2)(h) 61(3)	(b) All factories other and than those on continuous process.	Work performed by (i) All workers at tending to engine and boilers. (ii) Workers attending, starting. Stopping and maintaining electric motors and connected switchgear. (iii) Departmental oilers,	Sees, 51, 52. 54, Sees, 51, 52. 54,	(a) Such workers shall be allowed not less than two holidays In each period covered by four consecutive statutory factory holidays and shall not be allowed to work for more than six hours on any of the other two weekly holidays. (b) The notice required by Sec. 52 and be delivered to the office of the inspector showing on we days holidays will be allowed. (c) Intervals for food and rest shall be given to all workers allowed to Work on such work. (d) No worker shall be allowed to work for more than fifty four hours in any one week: and (e) Register or muster roll required to be maintained under Sec. 62 shall show correctly full particulars of periods within which each such worker may be required to work; 3 entitles In the register or muster rolls shall be upto date.
3.	64 (2) (c) and 64(3)	All Factories.	Work performed drivers on lighting, ventilating and ventilating apparatus.	51. 54, 55. 56 and 61.	(a) Intervals for food and rest shall be given to all such workers. Register or muster roll required (b) To be maintained under Sec. 62 shall show correctly full particulars of period within which each such worker may be required to work; entries to the register or muster roll shall be up-to-date.
4	(l)64(2) (c) and 64(3)	All Factories.	Work performed fire pumpmen.	Sees. 51. 54. 55. 56 and 61.	Register or muster roll required to be maintained under Sec, 62 shall show correctly full particulars or periods within which each such worker may be required to work, entries In the register or muster roll shall be up-to-date.
	(iii) 64 (2)(c) and 64(3)	Cotton and mills.	Spinning Work involved weaving clearing blow fuee.	involved Sees, 51, 54 and room 56,	(a) No worker shall be allowed to work for more than fifty one hours In any one week. (b) No worker shall be allowed to work in such a manner that the spread over

					exceeds ten and half hours except on one day in a week previously notified to the Inspector, when it shall not exceed twelve hours,
5.	64(2)(b)	Dyeing and 'bleaching' factories to department	Work performed by firemen.	Sees. 51, 54, 55 and 56.	The Intervals for food and rest totaling one hour if working hours exceed eight and half in a day or half an hour if working hours do not exceed eight and half hours shall be given to each worker every day the register or muster roll maintained in accordance with Sec. 62 shall show correctly the periods of work of each workers.
	Oil 64(2)(b)	Cloth printing factories or department or factories carrying on printing, preshrtnkin g, treatment finishing & mercerising of doth.	Work in the nature preparatory or complementary to main operations.	Sees. 51, 54 and 56.	-do-
6.	64(2)(b)	Cloth printing factories departments of Or factories and bleaching, finishing, mercerising and sanforising departments of factory.	All work.	Sec. 55.	Worker shall be allowed to work on shifts of not longer than eight hours duration.
7.	64(2)(b)	All factories other than Cotton spinning and weaving mills.	(a) Work performed by others and (b) Work in machine shop smithies or shop smithies or foundries so far as such work is complementary to the main	Secs. 51, 54 and 56.	This exemption shall not apply ; (i) In the case of work performed by oilers, where these workers of the factories in which they work have been exempted from the provisions of Sees, 52 to 55; and (ii) to the work to the mechanic shop, smithy or foundry portion of engineering workshops or to a smithy or foundry used solely as such.

			operations.		
8.	64 (2)(d). 64(2) (d). 64(4)	64(3) oil Installation s.	Work performed by worker In connection pumping operations.	Sees. 51, 52, 54, 56 and 61. with	(a) Intervals for food and rest shall be given to all workers allowed to work on such work . (b) A compensatory rest period of at least twenty four consecutive hours shall be given to each worker after the cessation of the pumping operations continuing after 10 p.m. (c) Notice of such pumping operations with the number of workers allowed to work shall be sent to the Inspectors as soon as possible after commencement of such work. (d) Exemption from Sec. 61 shall be availed of only during the continuance of pumping operations.
9.	64(2)(b))	Oil tank installations .	Work performed by fumacemen and fire men.	Sees. 51, 54 and 56.	
10.	64(2)(d)) and 64(4)	Public electricity supply factories generating electricity in any manner and rooms and - boiler department generating electricity in any manner for their own use employing workers on shift of not more than eight hours each.	Operation and maintenance of:— (i) Prime movers and auxiliaries, generators, transformers and swith gear, (ii) Oiler and auxilliaries swith gear, own use employing and workers on shift of more than eight hours	Sees. 51, 52, 54. 55 & 56.	(a) The workers shall be allowed to work on shifts of not longer than eight hours duration. (b) In the absence of worker who has failed to report for duty, a shift worker may be allowed to work the whole or part of subsequent shift provided that the next shift of the worker shall not commence before a period of 16 hours has elapsed after the (specified) stopping time of the shift to which the worker belongs. (c) No worker shall be allowed to work for more than fifty six hours. in any one week except than when employed as in condition (b) above but he shall not be allowed to work for more than sixty four hours in any one week. (d) Such workers shall be allowed not leas than two holidays in each period covered by four consecutive statutory factory holidays.
11.	64(2)(d)) and 64(4)	Electrical receiving stations and sub- stations or In any factory of	Operation and maintenance of transformers & their auxiliaries receiving and distribution swith gear,	Secs. 51, 54 55 and 56.	As In entry No. 10.

		the department of a factory receiving and distributing electrical energy for the use of factory.	lighting arresters synchronous and other condensers and rotary and static condensers.		
12.	—do—	Factories of department of factories charging electrical accumulators.	Operations in connection with charging electrical accumulators,	—do—	—do—
13.	—do—	Distilleries.	Work on the extraction of sugar from various basis fermentation of sugar. Juice- and Distillation of formed wash.	—do—	—do—
14.	64(2)(d) and 64(4)	Sugar factories	Operation, beginning with receiving, and weightment of cane and ending with beginning of sugar.	Sees. 51. 52. 54, 55 and 56.	As in entry No. 10.
15.	-do-	Chemical factories.	All continuous process works.	do-	-do-
15. A	-do-	Rayon and other like man made fibre factory.	All continuous procase works. Which shall also include preparatory weaving factory.	-do-	-do-
16.	-do-	Vegetable oil hydrogenation Factories.	The work viz., refining bleaching, filtering generation of hydrogen. Hydrogenating and decodorsing processes also compression of	-do-	-do-

			oxygen and the cylinder filling.		
17.	-do-	Magnesium chloride factories.	The work on concentrating process.	-do-	-do-
18.	-do-	Public pumping and compressor stations	All work	-do-	-do-
19.	64(2)(d)) 64(4)	and Train gas lighting factories of railways.	All work	Secs. 51, 52, 54, 55 and 56.	As in entry No. 10.
20.	-do-	Water pumping factories of railway workshops.	Supply All work.	-do-	-do-
21.	-do-	Ice Factories	Work of engine and compressor drivers and oilers and assistant.	-do-	-do-
22.	-do-	Carbolic acid gas works.	Work of firemen, pupmpmen, plant, drivers, oilers and the filling of cylinders.	-do-	-do-
22. A	64 (2) (b)	Carbolic acid gas works.	Work of firemen, to lightly boiler	Secs. 51, 54, and 55.	The exemption shall be availed of only one day when plant is restored after closure.
23.	64 (2) (b)	Carbolic acid gas solidificatio ns works.	All work except packing blocks.	Secs. 51, 52, 54, 55, and 56.	As in entry No. 10.
24.	64(2)(d) , 64(4)	Oxygens Factories.	Engine and plant drivers, oilers, and the filling of cylinders.	Secs. 51, 52, 54, 55, and 56.	As in entry No. 10.
25.	64(2)(d)) and 64(4)	Factories refining crude mineral oil.	(a) All continuous process work performed by plant operation, laboratory testers, and analysis, maintenance and	Sees. 51. 52, 54, 55, and 56.	As in entry Mo. 10

			instruments personal connected with continuous process work, dressers and sample carriers.		
	64(2)(d) and 64(3)		(b) Work performed by workers engaged in discharging loading tankers.	Sees, 51, 52, 54, 55, 56 and 61.	(i) Interval for food and rest shall be given to all workers allowed to work on such work; (ii) Exemption from Sec. 61 shall be availed of only during the continuance of the operations: and (iii) Notice of pumping operations with the number of workers allowed to work shall be sent to the Inspector as soon as possible after the commencement of such work.
	64(2)(d) and 64(d)		(c) Work performed by safety operation.	Secs. 51, 52, 54, 55 and 56	As in entry No.10.
26.	64(2)(d) and 64(4)	Coal Gas Factories.	All work in the, report house and on the water gas plant work of the made yards labour staff in unloading coal, feeding hoppers and removing coke. Work on the syphonca. boilers station meters and governors.	Sees. 51, 52, 54, 55 and 56	-do-
27.	64(2)(d) and 64(4)	Hydrolic pumping, stations.	All work.	-do-	-do-
28.	-do-	Paper card-board and straw board factories working on three eight hours shift system.	Work performed by male adult workers on choppers, digesters, kneaders, strlners and washers boaters, paper	-do-	-do-

			making machines, pumping plants refers and cutters.		
29.	64(2) (d)	Cement factories and Asbestos cement factories.	All work on continuous process units.	Secs. 51, 52, 54, 55 And 56.	As in entry No.10
30.	-do-	Glycerin factories	All continuous process work.	-do-	-do-
31.	-do-	Dextrin manufacturing factories.	-do-	-do	-do-
32.	-do-	Acetyline factories.	Generation of gas and filling of cylinders.	-do-	-do-
33.	-do-	Starch Factories working on eight hours shift.	All work except engineering department and work shop.	-do-	-do-
34.	64(2) (d) and 64(4)	Potassium Chlorate factories.	Work in the cell room.	Sees. 51, 52, 54, 55 and 56	As In entry No. 10.
35.	(i) -do-	Ferrous and non-ferrous metal factories.	All work on furnace.	-do-	-do-
	(ii) 64 (2) (d) (ii)	-do-	Hot rolling	Sec. 55.	Workers shall be allowed to work on shifts of not longer than eight hour's duration
36.	(i) 64 (2) (d) and 64 (4)	(i) Sodium and potassium dichromate factories.	Work on Crystallers.	Secs. 51, 52, 54, 55 and 56.	As in entry No. 10.
	(ii) 64 (2) (d)	(ii)-do-	All other work.	Sec. 55	Workers shall be allowed to work on shifts of not longer than eight hours duration.
37.	-do-	Oil mills.	All continuous process work.	-do-	-do-
38.	(i) 64(2) (d) and 64 (4)	Floor Mills.	All work.	-do-	Workers shall be allowed to work on shifts of not longer than eight hours duration.
	(ii) 64(2) (d)				

39.	(j) 64 (2) (d)	Gur factories.	The work performed by workers in crushing Sugarcane.	Secs. 51, 55 and 56.	-do-
	(ii) 64(2)	-do-	All other work except crushing sugarcane.	Secs. 51, 54, 55, 56 and 61.	A notice showing He periods of work of the crusher shall be exhibited In the factory and a copy sent to the Inspector.
40.	64(2)(d)	(iii) Cement tiles factories.	Work on the curing of tiles.	Sees. 51 and 52	(a) No worker shall be allowed to work for more than four hours on any of the weekly holidays. (b) No worker shall be allowed to work on consecutive weekly holidays. (c) No worker shall be allowed to work in excess of limits of weekly hours of work as laid down in Sec. 51 except during the week when the worker was on a weekly holidays in (a) above and when his total hours of work may be allowed to exceed the weekly limit laid down in Sec, 51 by the number of hours not exceeding 4 worked on the weekly holiday.
41.	64(2)(d) and 64(4)	Glass factory.	All work except packing work and work in Engineering Department.	Sees. 51. 52. 54 and 56.	As in entry no. 10.
42.	64(2) (d)	Smelting and	(I) Work on the reducing Furnance.	Sec. 55.	(a) The workers shall be allowed to work on shifts of not longer than eight hours duration. (b) Intervals for food and rest shall be given to all workers allowed to work in such work.
43.	64(2) (b)	Film Studio	All work .	Sec, 51, 54 and 56.	
44.	64(2)(d) and 64(4)	Rubber- type factories.	All work on curing process.	Sees. 51, 54, 55 and 56,	(a) The worker shall be allowed to work on shifts, of not longer than eight hours duration. (b) In the absence of a worker who has failed to report for duty, a shift worker may be allowed to work the whole or a part of a subsequent shift provided that the next shift of the shift worker shall not commence before a period of 61 hours has elapsed after the (specified) stopping time of the shift to which the worker belongs.

45.	64(2)(d)	Ordnances Factories	Work in melting shop, Sec. 55. swar fannealing furnance gas producers, electrical sub-station and water and electrical distribution departments.	Sec.55	Workers shall ordinarily work on three 6 hours shift.
46.	64(2)(d)	Soap factories.	Work on soap boiling pans and soap drying pans.	Sec.55	Workers shall be allowed to work on shifts of not longer than eight hours durations.
47.	64(2)(d)	Pottery works.	Workers of fireman on kilns,	Sec.52 and 55	(a) Workers shall be allowed to work on shifts of not longer than eight hour's duration. (b) No workers shall be allowed to work on consecutive weekly holidays.
48.	64(2)(d)	Brick factories	Work of fireman	on Sec-55.	Workers shall be allowed to work on shifts of not longer than eight hour's duration.
49.	-do-	Plastic Factories	Work on Plastic injection machine.	-do-	-do-
50.	-do-	Pharmaceut ical Factories	All continuous process works.	-do-	-do-
51.	64(2) (d) and 64(4)	Factories processing Cinematogr aphic films.	Work on developing and washing processes.	Sees. 51. 54, 55 and 56.	As in entry No. 44.
52.	64(2) (c)	All factories.	Telephone operators.	Secs. 51, 54, 55 and 56.	(a) No workers shall be allowed to work for more than 56 hours in any week.
53.	64(2) (i)	News paper printing presses.	(a) All work on daily news papers. (b) All work on weekly news paper.	-do-	(b) No overtime shall be carried on except for two days prior to the date of publication of the weekly news papers.. (c) The exemption under this entry shall be availed of only on that section of the press where there is a break-down of machineries.
54.	64(21(0 and 64(3}	All factories-	Loading and Unloading of railway wagons.	Secs. 51, 52, 54, 56 and 61.	Exemption from Sec. 61 may be availed of provided that every worker at the end of the day's work is supplied with a note showing the total number of hours of work put in by such worker.
55.	64(2) (d)	Cashewnut factories.	Oil extraction work.	Sec. 55	Worker shall be allowed to work on shift of not longer that eight hour's duration.

56.	-do-	Cotton spinning and weaving mills.	Work on hot air sizing machine ¹ (and work on multi-cylinder high speed sizing machine.]	-do-	(1)-do- (2) Worker shall be given specified rest intervals for food and rest.
57.	-do-	Cycle manufacturing factories.	Work in coloring and enameling section and semi automatic planting plant.	Secs. 55	Worker shall be allowed to work on shift of not longer that eight hour's duration.
58.	64(2)(B)	Confectionery Manufacturing Factories.	Making of malted chocolate flavoured food and chocolate making.	Secs. 51, 52, 54 55 and 56.	Worker shall be allowed to work on shift of not longer that eight hour's duration. ¹
59.	-do-	Chemical products Factories	Process of manufacturing activated carbon.	Secs. 51, 52, 54 55 and 56.	(a) The workers shall be allowed to work on shift of nit longer than eight hour's duration. (b) No worker shall be allowed to work in such a manner that the spread over exceeds twelve hours In any day and this shall be permissible only In case when a shift-reliever working on continuous" process does not attend at the correct time and alternative relief cannot be arranged. (c) No worker shall be allowed to work more than fifty six hours in any one. week except when employed as in condition (b) above, he shall not be allowed to work for more than sixty four in any one week. (d) Such workers shall be allowed hot less than two holidays in each period covered by four consecutive statutory holidays,
60.	64(2)(b)	Enamelled Ware manufacturing,	Works of enamelling of wares.	Sec. 55.	Workers shall be allowed to work on shifts of not longer than eight hour's duration.
61.	-do-	Insulated wire and cables manufacturing factories	Work on wire annealing plant P.V.C extruder & continuous vulcaising plan.	Secs. 54, 55 & 56.	The workers shall be allowed to work on shifts of not longer than eight hours duration. intervals for food and rest shall be given to all workers allowed to work on such a week.

62.	64(2) (d) and 64(4)	Milk Products Factories.	All work In connection with the manufacture of cream butter. Ghees by vaccuro process checsse. Baby food, milk powder, corn- powder sections of various fat concentrations case in sections or any other	Sees. 51, 54. 55 56.	(a) The workers shall be allowed to work on shifts or not longer than eight hours duration, (b) In the absence of a worker who has failed to report for duty a shift worker may be allowed to work the whole or part of subsequent shift of the shift worker shall not commence before a period of 16 hours elapsed after the specified stopping time of the shift to which the worker belongs. (c) No worker shall be allowed to work more than 4K hours in any one week for except that when employed as in condition above. (d) He shall not be allowed to work for more than 56 hours in any one week
63.	64(2)	Factories or department continuous process thereof units manufacturi ng crimped (stretch) yarn from term plastic filament yarn.			

(Note : The attention of Manager of all factories is drawn to section 59 and Rule 85 regarding payment for overtime work of exempted workers])

Footnote:

1. Ins. by Notfn. Dt. 15. 2. 1995 (15.2.1995).

¹[91.A. Exemption to women workers working in fish-curing and fish canning factories:-

All women workers working in fish-curing and fish canning factories shall be exempted from the restrictions set out in sub-section) of section.66 subject to the following conditions:

(1) No women shall be employed before 6.00 a,m or after 7.00 p.m for mtwe than fifteen days in any calendar month. The number of days on which a woman may be so employed shall not exceed hundred in a year.

(2) Women may be employed after 11.00 p.m only if the occupier of the factory provides free transport facilities to the women workers to reach their home after night work.

(3) period of work for each male adult worker shall be so arranged that inclusive of his interval for

rest they shall not spare over more than twelve hours in any day:

Provided further that the restrictions imposed by sub-clauses (1) and (3) shall not apply in the case of a shift worker mentioned in entries 8, 10 to 37(i) 36(1) 46 and 53 of the Schedule who is allowed to work the whole or part of a subsequent shift in the absence of a worker who has failed to report for duty.

(3) A period of uninterrupted rest of at least 9 hours shall intervene between the cessation of a period of work after 7.00 p.m. on any day and the beginning of a fresh period of work on the following day.]

Footnote:

1. Ins. by Ntm. Dated 15.2.1995 [15.2.1995]

Chapter VII

Employment Of Young Persons

Notice Prescribed Under Sub-Sec. (3) of Sec. 72

92. Notice of periods of work for children. :-

The notice of periods of work for child workers shall be in Form No. 16.

Register Prescribed Under Sub-Sec. (2) of Sec. 73

93. Register of child workers. :-

The Register of child workers shall be in Form No. 17. ¹[This shall be written up afresh each year and shall be preserved for a period of twelve months.]

Footnote:

1. Added vide G.N.. L & H.D. No. 44/48-1, dated 22nd August, 1951.

Chapter VIII

(Annual Leave with Wage)

Rules 94-101 Prescribed Under Sec. 80(3) and 83

94. Leave with wages register. :-

(1) The Manager shall keep a Register in Form No. 18 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.

Rules 94, 95 and 110-A - One or distinct offence.

Whether contravention of one rule reflects one offence or different offences worker wise depends upon the nature of the obligation under the relevant rule or provision of the Act. - State of Gujarat v. Maganlal Gordhandas Mer, 1994 (1) GLR 799.

95. Leave Book. :-

(1) The Manager shall provide each worker with a book in Form No. 19 (hereinafter called the leave Book). The Leave Book shall be the property of the worker and the Manager or his agent shall not demand it except to make relevant entries therein and shall not keep it for more than a week at a time.

(2) If a worker loses his Leave Book, the Manager shall provide him with another copy on the payment of anna one within fifteen days, and shall complete it from his record.

¹[96. Medical Certificate. :-

If any worker is absent from work and if he wants to avail himself of the leave with wages due to him to cover the period of illness as provided in sub-sec. (7) of Sec. 79, he shall, if so required by the Manager, produce a medical certificate signed by a registered medical practitioner or by a recognised vaid or hakim stating the cause of the period for which the worker is, in the opinion of such medical practitioner vaid or hakim unable to attend to his work:

Provided that if in any village there is no registered medical practitioner or registered or recognised vaid or hakim a certificate of the President of Village Panchayat or Headman of the village shall be deemed as sufficient for the purpose of this rule.]

Footnote:

1. Substituted vide G.N., L. & S.W.D. No. FAC. 1157, dated 27th October, 1958.

¹[97. Notice of Inspector of Lay off. :-

The Manager shall give, as soon as possible, a notice to the Inspector of every case of lay-off of workers by agreement or contract or as permissible under the standing orders, giving the numbers of such workers and the reasons for the lay-off, entries to this effect shall be made in the Leave with Wages Register and the Leave Book in respect of each worker concerned.

Footnote:

1. Substituted vide G.N., L. & S.W.D. No. FAC. 1157, dated 27th October, 1958.

98. Notice by Worker. :-

Before or at the end of every calendar year a worker may give notice to the Manager of his intention not to avail himself of the annual leave with wages falling due to him during the following 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.]

¹[99. Notice by manager. :-

The Manager shall, as soon as possible. In the first quarter of each calendar year cause a notice to be displayed giving the names of all workers whose maximum leave has been carried forward, under the first proviso to sub-sec. (5) of Sec. 79. A copy of the notice shall be delivered at the office of the Inspector of Factories.]

Footnote:

1. Rule 99 substituted vide G.N., E & L.D. No. FAC 1060/13224-1, dated the 21st January, 1964.

¹[99-A. Mode of leave. :-

As far as circumstances permit members of the same family comprising husband, wife and children shall be allowed leave on the same date. The Manager may alter the dates fixed for leave only after giving notice of four weeks to the worker.]

Footnote:

1. Rule 99-A inserted vide G.N., E & L.D. No. FAC 1060/13224-1, dated the 21st January, 1964.

¹[100. Payment of leave wages due if worker dies. :-

If a worker, who is entitled to advance payment in accordance with the provisions of Section 81, dies before he resumes work, the balance of his pay due for the period of leave shall be paid to his nominee and failing such nominee to his legal representative within one month of the receipt of intimation of death of the worker. The nomination shall be in Form No. 35 and signed by the worker and attested by two witnesses.]

Footnote:

1. Substituted vide G.N., L & S.W.D., No. FAC 1157, dated 27th October, 1958.

101. Register to be maintained in case of exemption under Sec. 84. :-

(1) Where an exemption is granted under Sec. 84, the Manager shall maintain a Register showing the position of each worker as regards 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 send a copy of it to the Inspector.

(3) No alteration shall be made in the schedule approved by the State Government at the time of granting exemption under Sec. 84 without its previous sanction.

Chapter IX

Special Provisions

Rule Prescribed Under Sec. 87

102. Dangerous ¹[Manufacturing Process or Operations]. :-

(1) The following ¹[manufacturing process or operations] when carried on in any factory are declared to be dangerous ¹[manufacturing process or operations] under Sec. 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.
- ²[7. Generation of gas from dangerous petroleum as defined in clause (b) of Sec. 2 of the Petroleum Act, 1934.]
- ³[8. Cleaning, smoothing roughening or removing of any part of the surface of articles, by a jet of sand, metal shot, or grit, or other abrasive propelled by a blast of compressed air or steam.]
9. Liming and tanning of raw hides and skins processes incidental thereto.
- ⁴[10. Manufacture of chromic acid or manufacture or recovery of the bichromate of sodium or potassium or ammonium.]
- ⁵[11. Manipulation of nitro or amido compounds.]
- ⁶[12. Manipulation of acids or alkalis.]
- ⁷[13. Manufacture of bangles and other articles from cinematograph films and acetone, tetrachlorethane and other toxic and inflammable solvents.]
- ⁸[14. Processes involving manufacture, use or evolution of carbon disulphide and hydrogen sulphide.]
- ⁹[15. Manufacture and manipulation of dangerous pesticides.]
- ¹⁰[16. Compression of Oxygen and Hydrogen produced by electrolysis of water.]
- ¹¹[17. 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.
18. Manufacture of articles from refractory materials including manufacture of refractory bricks.]
- ¹²[19. Chemical Works.
20. Manufacture, Handling and Usage of Benzene and Substances containing Benzene.
21. Process of extracting oils and fats from vegetables and animal sources in Solvent extraction plants.
22. Manufacturing process or operations in Carbon Disulphide plants.
23. Operations involving High Noise levels.]
- ¹³[24. Welding / Cutting Operation with the use of LPG / Acetylene /Arcon.]
- ¹⁴[25. Manufacture of pottery.

26. Operations in Foundries.]

(2) The provisions specified in the Schedules annexed hereto shall apply to any class or description of factories wherein dangerous operations specified in each Schedule are carried out.

(3) This Rule shall come into force¹⁵ in respect of any class or description of factories wherein the said operation are carried on, such dates as the State Government may by notification in the Official Gazette appoint in this behalf.

1. Subs, by Notfn. dated 15-2-1995.
2. Substituted vide G.N., L. & S.W.D., No. FAC 1159-J, dated 30th October, 1959.
3. Item 8 substituted vide G.N., F. & L. D., No. KH/SH 853/FAC 1164-3510-T, dated the 18th October, 1968.
4. Ins. by G.N.L and H.D. 44/48, dt. 27th March. 1952.
5. This item was inserted by G.N., L. & H.D., No. 2185/46. dated 28th April, 1952.
6. Inserted vide G.N., D.D., No. FAC, 1255. dated 1st December, 1955.
7. Inserted vide G.N.. D.D., No. FAC, 1256, dated 22nd October, 1956.
8. Inserted vide G.N.L. & S.W.D., FAC-1155. dt. 10.1.1959.
9. Inserted vide G.N.E., and L.D. No. FAC 1060/13324-1, dated the 21st January 1964.
10. Item 16 Inserted vide G.N.E. & L.D., KH-SH/437/FAC1163/21536-JT, dated 21-5-65
11. Items 17 & 18 Inserted vide G.N.E. & L.D. KH-SH-853/FAC-1164-3510-T, dt. 18.10.1958.
12. Items 19 to 23 inserted vide Notfn. 15.2.1995.
13. Ins. by Notfn. 2.3.1987, G.G. Gaz., Pt. IV-A. dt. 2.3.1987, p. 130.
14. Items 25 & 26 inserted vide Notfn. 15.2.1995.
15. Rule 102 came into force with effect from 20th December, 1950, vide G.N., L & H.D., No. 44/48, - VIII, dated 20th December, 1950.

Schedule I

Manufacture Of Aerated Water and Processes Incidental Thereto

1. Fencing of machines.:-

All machines for filling bottles or syphons shall be so constructed, placed or fenced as to prevent, as far as may be practicable, a fragment of a bursting bottle or syphone 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 syphons: -

- (a) suitable face-guard 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 worker at work upon it is exposed to danger, a gauntlet need not be provided for the arm which is not exposed to danger.
- (2) The occupier shall provide and maintain in good condition for the use of all persons engaged in corking, crowning, screwing, wiring, foiling, capsuling, sighting or labelling bottles or siphons:-
- (a) suitable face-guards to protect the face, neck and throat, and half of the palm and the space between the thumb and forefinger.
 - (b) suitable gauntlets for both aims to protect the arms 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 process specified in paragraph 2 shall, while at work in such process, wear the face-guards and gauntlets provided under the provisions of the said paragraph.

¹[Schedule II

Electrolytic Plating Or Oxidation Of Metal Articles By Use Of An Electrolytic Containing Acids, Bases Or Salts Of Metals Such As Chromium, Nickel, Cadmium, Zinc, Copper, Silver, Gold, Etc.

1. Definitions:-

For the purposes of this Schedule:-

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

2. Exhaust draught :-

An efficient exhaust draught shall be applied to every vessel in which an electrolytic process is carried on, such draught shall be provided by mechanical means and shall operate on the vapour or spray given off in the process-as near as may be at the point of origin. The exhaust draught appliance shall be so constructed, arranged and maintained as to prevent the vapour or spray entering into any room or place in which work is carried on.

3. Prohibition relating to women and young persons:-

No women, adolescent or child shall be employed or permitted to work at a bath.

4. Floor of workrooms:-

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

5. Protective devices:-

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

- (a) water proof aprons and bibs; and
- (b) for persons actually working at a bath, loose fitting, rubber gloves and rubber boots or other footwear, and chemical goggles.

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

6. Water facilities:-

(1) There shall be provided and maintained in good repairs for the use of all persons employed in electrolytic process and processes incidental to it:-

- (a) a wash place undercover, with either :-
 - (i) a trough with a smooth impervious surface fitted with a waste pipe, and of sufficient length to allow at least 60 cms. for every 5 persons employed at any one time, and having a constant supply of water from taps or jobs above the trough at intervals of not more than 60 cms. or
 - (ii) at least one wash basin for every five such persons employed at any one time fitted with a waste pipe and having a constant supply of water laid on.
- (b) a sufficient supply of clean towels renewed daily, and soap or other suitable cleaning material.

(2) In addition to the facility in sub-paragraph (1) an approved type of emergency shower with eye fountain shall be provided and maintained in good working order. Wherever necessary, in order to ensure continuous water supply, storage tank of 1500 litres capacity shall be provided as a source of clean water for emergency use.

7. Cautionary placard:-

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

Cautionary Notice

Electrolytic Plating

1. Chemicals handled in this plant are corrosive and poisonous.
 2. Smoking, chewing tobacco, eating food or drinking, in this area is prohibited. No food stuff or drink shall be brought in this area.
 3. Some of these chemicals may be absorbed through the skin and may cause poisoning.
 4. A good wash shall be taken before meals.
 5. Protective devices supplied shall be used while working in this area.
 6. Spillage of the chemicals on any part of the body or on the floor shall be immediately washed away with water.
 7. All workers shall report for the prescribed medical test regularly to protect their own health.
 8. Medical facilities and record of examination and tests.:-
 - (a) The occupier of every factory in which electrolytic processes are carried on shall employ a qualified medical practitioner for medical surveillance of the workers employed therein whose appointment shall be subject to the approval of the Chief Inspector of Factories;
 - (b) provide to the said medical practitioner all the necessary facilities for the purpose referred to in clause (a); and
 - (c) maintain a sufficient supply of suitable barrier cream, ointment and impermeable water proof plaster in a separate box readily accessible to the workers and used solely for the purpose of keeping these substances. In case cyanides are used in the bath, the box shall also contain an emergency cyanide kit.
- (2) The medical practitioner shall examine all workers before they are employed in electrolytic processes. Such examination in case of chrome plating shall include inspection of hands, forearms, and nose, and shall be carried out once at least once in every fortnight.
- (3) The record of the examinations referred to in sub-paragraph (2) shall be maintained in a separate register approved by Chief Inspector of Factories which shall be kept readily available for inspection by the Inspector.

9. Medical examination by the Certifying Surgeon.:-

- (1) Every worker employed in the electrolytic processes shall be examined by a Certifying Surgeon before his first employment. Such examination shall include X-ray of the chest and: -
- (a) in case of chromium plating include examination for nasal
 - (b) septum perforation and test for chromium in urine:
in case of nickel plating, test for nickel in urine: and
 - (c) in case of cadmium plating, test for cadmium in urine and 2 macroglobulin in urine.
- (2) No worker shall be employed in any electrolytic process unless certified fit for such employment by the Certifying Surgeon.
- (3) Every worker employed in the electrolytic processes shall be re-examined by a Certifying Surgeon at least once in every year, except in case of the workers employed in cadmium, chromium and nickel plating processes for whom this examination shall be carried out once in every six months,

such re- examination shall, wherever the Certifying Surgeon considers appropriate, include tests as specified under sub-paragraph (1) excluding the X-ray of the chest which shall not be required to be carried out earlier than once in three years.

(4) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 27-A. The record of examinations carried out shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-paragraph (1) and (2), including the nature and the results of the tests, shall also be entered by the Certifying Surgeon in a health register in Form No. 20.

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

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

(7) No person who has been found .unfit to work as specified in sub-paragraph (6) 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.]

Footnote:

1. Subs. by Notfn. dated 15.2.1995 (15.2.1995].

Schedule III

Manufacture and Repair of Electric Accumulators

1. Savings:-

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

2. Definitions:-

For the purposes of this Schedule: -

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

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

(c) "Suspension" means suspension from employment in any lead process by written certificates in the Health Register (Form No. 20) signed by the Certifying Surgeon, who shall have power of suspensions as regards all persons employed in any such process.

3. Prohibition relating to women and young persons:-

No women or young person shall be employed or permitted to work in any 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; pasting;
- (b) drying of plates;
- (c) formation with lead burning ("tacking") necessarily carried on in connection therewith;
- (d) melting down of pasted plates:
- ¹(e) the grid casting shop.)

5. Air space :-

In every room in which a lead process is carried on, there shall be at least 14.2 cubic metres of air for each person employed therein and in computing this air space no height over 3.7 metres 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 paste and that the paster working nearest to him shall not be less than 1.5 metres.

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 dally.
- (4) Without prejudice to the-requirements in 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 dally by means of a hose pipe.

9. Workbenches:-

The workbench at which any lead process is carried on shall: -

- (a) have a smooth surface and be maintained in sound condition;
- (b) be kept free from all materials or plant not required for, or; produced in, the process carried on thereat; and all such workbenches other than those In grid casting shops shall -
- (c) be cleaned dally 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 workbench in grid casting shops shall: -
- (d) be cleaned daily;

and every workbench 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;

¹[and every workbenches used for trimming, brushing, filing or any other abrading or cutting of pasted plate shall: -

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

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 linings for cell cases necessarily carried on in such a manner that the application of efficient exhaust is impracticable.

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

11. Fumes and gases from melting pots :-

The products of combustion produced in the heating of any melting pot shall not be allowed to escape 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 workroom, except when dross is being deposited therein.

13. Container for lead waste :-

A suitable receptacle shall be provided in every workroom in which old 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 2.4 metres from the floor not more than 61.00 centimeters in width :

Provided that as regards racks or shelves set of drawn from both sides the total width shall not exceed 1.2 metres.

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 Examination:-

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

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

(b) Health Register in Form No. 20 containing the names of all persons employed in a lead process shall be kept.

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

16. Protective clothing:-

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

(a) manipulation of raw oxide of lead;

- (b) pasting;
- (c) the formation room:

and such clothing shall be worn by the persons concerned. The protective clothing shall consist of a waterproof apron and waterproof 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 be provided and maintained for the use of all persons employed in a lead process and remaining on the premises during the meal intervals, a suitable mess-room, which shall be furnished with:-

- (a) sufficient tables and benches, and
- (b) adequate means for warming food.

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

18. Cloakroom :-

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

- (a) a cloakrooms 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 they 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 61.00 centimeters for every five such persons employed at anyone time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 61.00 centimeters: or
 - (ii) at least one wash basin for every five such persons employed at any time, fitted with a waste pipe and plug and having a constant supply of water laid on:
 - (iii) a sufficient supply of clean towels made of suitable materials renewed daily, which supply, in the case of posters 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 cleaning material and of nail brushes.
- (b) there shall in addition be provided means of washing in close proximity to the rooms in which manipulation of raw oxide of lead or pasting is carried on if required by notice

in writing from the Chief Inspector.

20. Time to be allowed for washing:-

Before each meal and before the end of the day's work, at least 10 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 of 61.00 centimeters or trough for each such person this rule shall not apply.

21. Facilities for bathing:-

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

22. Foods, drinks, etc. Prohibited in workrooms: -

No food, drink, pan and supari or tobacco shall be consumed or brought by any worker into any workroom in which any lead process is carried on.

¹[23. Storage of lead oxides:-

All bags containing or having contained oxides of lead shall be kept in closed room used only for this purpose.

¹[24. Reuse of paper or cloth restricted:-

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

Footnote:

1. Added vide G.N.D.D., 118 dated 16th December, 1964.

Schedule IV

Glass manufactures

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 purpose of this Schedule:-

- (a) "Efficient exhaust draught" means localised ventilation effected by mechanical means, for the removal of gas, vapour, dust or fumes so as to prevent them (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fume or dust originate;
- (b) "Lead Compound" means any compound of lead other than galena which, when treated in the manner described below, yields to an aqueous solution of hydrochloric acid a quantity 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° C and thoroughly mixed shall be continuously shaken for one hour at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 per cent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate.

- (c) "Suspension" means suspension from employment in any process specified in paragraph 3 by written certificate in the Health Register Form No. 20 signed by the Certifying Surgeon who shall have power of suspension as regards all persons employed in any such process.

3. Exhaust draught:-

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

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

4. Prohibition relating to women and young persons:-

No woman or young person shall be employed or permitted to work in any of the operation specified in paragraph 3 or at any place where such operations are carried on.

5. Floor and workbenches:-

The floor and workbenches 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 materials so as to be smooth and impervious to water;
- (b) maintained in sound condition; and
- (c) cleaned daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room.

The workbenches shall:-

- (a) have a smooth surface and be maintained in sound condition; and
- (b) be cleaned daily either after being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on 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 sizes so as to secure and maintain efficient ventilation in all parts of the rooms;
- (b) the floor shall be covered with gutta-percha and be tight and shall slope down to a covered drain;
- (c) the work places shall be so enclosed in projecting hoods that opening 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, gutta-percha.

8. Food, drinks, etc. Prohibited in workroom:-

No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any room or workplace wherein any process specified in paragraph 3 is carried on.

9. Protective clothing:-

The occupier shall provide, maintain in good repair and keep in a clean condition for the use of all persons employed in the processes specified in paragraph 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.

10. Washing facilities :-

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

- (a) a wash place with either: -
 - (i) a trough with a smooth impervious surface fitted with a waste pipe, without plug and sufficient length to allow of at least 61.00 centimeters for every five such persons

employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 61.00 centimeters or

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

And

a sufficient supply of clean towels made of suitable material renewed daily with a sufficient supply of soap or other suitable cleaning material and of nail brushes;

And

- (b) 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.

11. Medical Examination:-

- (a) Every person employed in any process specified in paragraph 3 shall be examined by the Certifying Surgeon within seven days preceding or following the date of his first employment in such process and thereafter shall be examined by the Certifying Surgeon once in every calendar month or at such other intervals as may be specified in writing by the Chief Inspector on a day of which due notice shall be given to all concerned.
- (b) A Health Register in Form No. 20 containing names of all persons employed in any process specified in paragraph 3 shall be kept.
- (c) No person after suspension shall be employed in any process specified in paragraph 3 without written sanction from the Certifying Surgeon entered in or attached to the Health Register.

Schedule V

Grinding of Glazing of Metals and Processes Incidental Thereto

1. Definitions:-

For the purposes of this Schedule:-

- (a) "Grindstone" means a grindstone composed of natural or manufactured sandstone but does not include a metal wheel or cylinder into which blocks of natural or manufactured sandstone are fitted;
- (b) "Abrasive wheel" means a wheel manufactured of bonded emery or similar abrasive;
- (c) "Grinding" means the abrasion, by aid of mechanical power, of metal, by means of grindstone or abrasive wheel;
- (d) "Glazing" means the abrading, polishing or finishing by aid of mechanical powers, 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) "Ridding" 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. Exception:-

- (1) Nothing in the 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 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 dust shall be kept free from obstruction and shall be provided with proper means of access for inspection and cleaning, and where practicable with a connection at the end remote from the fan to enable the Inspector to attach thereto any instrument necessary for ascertaining the pressure of air in the said duct, and
- (c) a fan or to other efficient means of producing a draught sufficient to extract the dust :

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

4. Restriction on employment on grinding operations:-

Not more than one person shall at a time perform the actual process of grinding or glazing upon a grindstone, abrasive wheel or glazing appliance:

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

5. Glazing:-

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

6. Hacking and ridding:-

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

7. Examination of dust equipment:-

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

Schedule 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 of the portion taken of analysis. In the case of paints and similar products and other mixtures containing oil or fat the "dry weight" means the dry weight of the material remaining after the substance has been thoroughly mixed and treated with suitable solvents to remove oil, fats, varnish or other media. The method of treatment shall be as follows: -

A weighed quantity of the material which has been dried at 103°C, and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 percent by weight by hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate.

- (b) "Efficient Exhaust Draught" means localised ventilation effected by heat or mechanical means, for the removal of gas, vapour, dust or fumes so as to prevent them (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fumes or dust originate.¹

3. Application:-

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

- (a) Work at a furnace where the reduction or treatment of zinc or lead ores is carried on.
- (b) The manipulation, treatment or reduction of ashes containing lead, the desilvering of lead or the melting of scrap lead or zinc.
- (c) The manufacture of solder or alloys containing more than ten percent of lead.

- (d) The manufacture of any oxide, carbonate, sulphate, chromate, acetate, citrate or silicate of lead.
- (e) Handling or mixing of lead tetraethyl.
- (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. Requirement 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 5 to 14 are complied with.

6. Exhaust draught.:-

Where dust, fume, gas or vapour is produced in the process, provision shall be made for removing them by means of an efficient exhaust draught so contrived as 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 certificates 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 hand coverings shall be provided, maintained and kept clean by the factory occupier and such overalls coverings shall be worn by the person employed.

11. Cleanliness of work rooms, tools, etc:-

The rooms in which the persons are employed and all tools and apparatus used by them shall be kept in a clean state.

12. Washing facilities:-

(1) The occupier shall provide and maintain for the use of all persons employed suitable washing facilities consisting of: -

- (a) a trough with a smooth impervious surface fitted with a waste pipe without plug and of sufficient length to allow at least 61.00 centimeters 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 61.00 centimeters or;
- (b) at least one wash-basin for every ten persons employed at any one time, fitted with a waste pipe 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 provided shall be placed under the charge of responsible person and shall be kept clean.

13. Mess-room or Canteen :-

The occupier shall provide and maintain for the use of the persons employed suitable and adequate arrangements for taking their meals. The arrangements shall consist - of the use of a room separate from any workroom which shall be furnished with sufficient tables and benches, and unless a canteen serving hot meals is provided, adequate means of warming food.

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

14. Cloakroom :-

The occupier shall provide and maintain for the use of person employed, suitable accommodation for clothing not worn during working hours and for the drying of wet clothing.

Schedule VII

¹generation Of Gas from Dangerous Petroleum As Defined In Clause (B) Of Sec. 2 Of The Petroleum Act, 1934

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 the building in which the generation of gas from dangerous petroleum defined in clause (b) of Sec. 2 of the Petroleum Act, 1934, is carried on.

2. Flame traps. :-

The plant for generation of gas from dangerous petroleum as defined in clause (b) of Sec. 2 of

the Petroleum Act, 1934, 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. Generation buildings or room:-

All plants for generation of gas from dangerous petroleum as defined in clause (b) of Sec. 2 of 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 direct communication between the room where such plants are erected (hereinafter referred to as "the generating room") and the remainder of the factory building. So far as practicable all such generating rooms shall be constructed of fire resisting materials:

²[Provided that where the State Government is satisfied in respect of any factory that the plant for generation of gas from dangerous petroleum as defined in clause (b) of Sec. 2 of the Petroleum Act, 1934, is on account of the special precautions adopted or contrivances used for such plant, not likely to expose any persons employed in such factory to any serious risk of bodily injury, the State Government, may by notification in the Official Gazette exempt such factory wholly or partially from the provisions of this clause for such period and on such conditions as it may specify.]

4. Fire extinguisher :-

An efficient means of extinguishing petrol fires shall be maintained in an easily accessible position near the plant for 'generation of gas from dangerous petroleum as defined in clause (b) of Sec. 2 of 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 etc:-

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

8. Access to petrol or container:-

No unauthorized person shall have access to any petrol or to a vessel containing or having actually contained petrol.

9. Electric fittings:-

All electric fittings shall be of flame proof construction and all electric conductors shall either be enclosed in metal conduits or to be leads heathed.

10. Construction of doors:-

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

11. Repair of containers:-

No vessel that has contained petrol shall be repaired in a generating room or building and no repairs to any such vessel shall be undertaken unless live steam has been blown into the vessel & until the interior is thoroughly steamed out or other equally effective steps having been taken to require that it has been rendered free from petrol or inflammable vapour.

Footnote:

1. Added by G.N.D.D., No. 44/48, dated 22nd October, 1953.
2. Substituted vide G.N.L & S.W. No. FAC. I 159-J, dated 30th October, 1959.

¹[Schedule VIII

Cleaning, Smoothing, Roughening or Removing of any Part of the Surface of Articles, By A Jet Of Sand, Metal Shot. Or Grit Or Other Abrasive Propelled By A Blast Of Compressed Air Or Steam (Blasting Regulations)

1. Definitions:-

For the purposes of this Schedule: -

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

2. Prohibition of sand blasting:-

Sand or any other substance containing free silica not be introduced as an abrasive into any blasting apparatus and shall not be used for blasting:

Provided that, this paragraph shall come into force two years after the coming into operation of the Gujarat Factories (Amendment) Rules, 1968:

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 plants and appliances situated therein, shall be performed in a blasting enclosure. Every door, aperture and joint of blasting enclosure, shall be kept closed and air tight while blasting is being done therein.

(2) Maintenance of blasting enclosure:-

Blasting enclosure shall always be maintained in good condition and effective measures shall be taken to prevent dust escaping from such enclosures, and from apparatus connected therewith into the air of any room.

(3) Provision of separating apparatus :-

There shall be provided and maintained for and in connection with every blasting enclosure, efficient apparatus for separating, so far as practicable abrasive which has been used for blasting and which is to be used again as an abrasive from dust or particles of other materials arising from blasting : and no such abrasive shall be introduced into any blasting apparatus and used for blasting until it has been so separated :

Provided that, nothing in this subparagraph apply except in the case of blasting chambers, to blasting enclosures constructed or installed before the coming into force of the Gujarat Factories (Amendment) Rules, 1968, 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 ventilation plant to extract, by exhaust draught affected by mechanical means, dust produced in the enclosure. The dust extracted and removed shall be disposed of by such method and in such manner that it shall not escape into the air of any room, and every other filtering or settling device situated in a room in which persons are employed, other than persons attending to such bag or other filtering or settling device, shall be completely separated from the general air of that room in an enclosure ventilated to the open air.

(5) Operation of ventilating plant:-

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

4. Inspection and examination:-

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

- (2) Particulars of the result of every such inspection, examination 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 provisions of this Schedule shall be removed without available delay.

5. Provision of protective helmets, gauntlets and overalls :-

- (1) There shall be provided and maintained for the use of all persons who are employed in a blasting chamber; whether in blasting or in any work connected therewith or in cleaning such a chamber, protective helmets of a type approved by a certificate of the Chief Inspector and every such person shall wear the helmet provided for this use whilst he is in the chamber and shall not remove it until he is outside the chamber.
- (2) Each protective helmet shall carry a distinguishing mark indicating the person by whom it is intended to be used and no person shall be allowed or required to wear a helmet not carrying his mark or a helmet which has been worn by another person has not since been thoroughly disinfected.
- (3) Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate of not less than six cubic feet per minute.
- (4) Suitable gauntlets and overalls shall be provided for the use 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 any apparatus or ventilating plant connected therewith or the surroundings thereof or upon any other work in connecting with any blasting apparatus or blasting enclosure or with any apparatus or ventilating plant connected therewith so that he is exposed to the risk of inhaling dust which has arisen from blasting, all practicable measures shall be taken to prevent such inhalation.
- (2) In connection with any cleaning operation referred to in paragraph 5 and with the removal of dust from filtering or settling devices all

5. Provision of protective helmets, gauntlets and overalls:-

- (1) There shall be provided and maintained for the use of all persons who are employed in a blasting chamber; whether in blasting or in any work connected therewith or in cleaning such a chamber, protective helmets of a type approved by a certificate of the Chief Inspector and every such person shall wear the helmet provided for this use whilst he is in the chamber and shall not remove it until he is outside the chamber.
- (2) Each protective helmet shall carry a distinguishing mark indicating the person by whom it is intended to be used and no person shall be allowed or required to wear a helmet not carrying his mark or a helmet which has been worn by another person has not since been thoroughly disinfected.
- (3) Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate of not less than six cubic feet per minute.

(4) Suitable gauntlets and overalls shall be provided for the use 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 any apparatus or ventilating plant connected therewith or the surroundings thereof or upon any other work in connecting with any blasting apparatus or blasting enclosure or with any apparatus or ventilating plant connected therewith so that he is exposed to the risk of inhaling dust which has arisen from blasting, all practicable measures shall be taken to prevent such inhalation.

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

7. Storage accommodation for protective wear:-

Adequate and suitable storage accommodation for the helmet, gauntlets and overall required to be provided by paragraph 5 shall be provided outside and conveniently near to every blasting enclosure and such accommodation shall be kept clean. Helmets, gauntlets and overalls when not in actual use shall be kept in this accommodation.

8. Maintenance and cleaning of protective wear:-

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

9. Maintenance of vacuum cleaning plant:-

Vacuum cleaning plant used for the purpose of this schedule shall be properly maintained.

10. Restrictions in employment of young persons :-

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

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

11. Power to exempt or relax:-

(1) If the Chief Inspector is satisfied that in any factory, or any class of factory, the use of sand or other substance containing free silica as an abrasive in blasting is necessary for a particular manufacture or process other than the process incidental or supplemental to making of metal casting and that the manufacture or process cannot be carried on without the use of such abrasive or that owing to the special conditions or special

method of work or otherwise any requirement of this Schedule can be suspended either temporarily or permanently or can be relaxed without endangering the health of the persons employed or that application of any of such requirements is for any reason impracticable or inappropriate he may with the previous sanction of the State Government by an order in writing, exempt the said factory or class of factory from such provisions of this Schedule, to such an extent and subject to such conditions and for such period as may be specified in the said order.

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

Footnote:

1. Schedule VIII. Substituted vide G.N.E. & L.D. No. KH/SH 853/FAC1164-3510-T, dated the 18th October. 1968.

Schedule IX

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

1. Cautionary notices:-

- (1) Cautionary notices as to anthrax, in the form specified by the Chief Inspector shall be affixed in prominent positions in the factory where they may be easily and conveniently read by the person, employed.
- (2) A copy of a warning notice as to anthrax in the form specified by the Chief Inspector shall be given to each persons employed when he is engaged and subsequently if still employed on the first 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 incharge of such box or cupboard.
- (5) If any person employed in the factory is illiterate, effective steps shall be taken to explain carefully to such illiterate person the contents of the notices specified in paragraphs 1. 2 and 4 and if chrome solutions are used in the factory, the contents of the notice specified in paragraph 3.

¹[2. Protective clothing:-

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

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

Provided that:-

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

3. Washing facilities, mess-room and cloakrooms:-

There shall be provided and maintained in a cleanly state and in good repair for 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 61-00 centimeters for every ten persons employed at any one time, and having a constant supply of water from taps or jets above the trough, at intervals of not more than 61-00 centimeters 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 materials; and clean towels;
- (c) suitable mess-room, adequate for the number remaining on the premises during the meal intervals which shall be furnished with (1) sufficient tables and benches and (2) adequate means for warming food and for boiling water.

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

- ²[(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 placed under the charge of a responsible person.]

4. Food, drinks etc. Prohibited in workrooms:-

No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any workroom or shed in which hides or skins are stored, treated or manipulated.

5. First-aid arrangements:-

The occupier shall:-

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

Footnote:

1. Inserted by G.N.L. and H.D. 44/48, dated 27th March, 1952
2. Clause (d) substituted vide G.N.E. & L.D., No. KH/SH-810/FAC, 1166-71868-T. dated the 4th October, 1968.

¹[Schedule X

Manufacture of Chromic Acid or Manufacture or Recovery of the Bichromate of Sodium, Potassium or ammonium

1. Definitions:-

For the purposes of this Schedule:-

- (a) "Chrome process" means the manufacture of chromic acid or bichromate of sodium or potassium or ammonium the manipulation, movement or other treatment of these substances in connection with their manufacture;
- (b) "Efficient exhaust draught" means localised ventilation effected by mechanical or other means for the removal of gas, vapour, dust or fume so as to prevent them from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated to the point where such gas, vapour, fumes or dust originate;
- (c) "Suspension" means suspension from employment in any of the chrome process specified by written certificate in the Health Register (Form No. 20) signed by the Certifying Surgeon, who shall have power of suspension as regards all persons employed in any such process.

2. Prohibition relating to women and young persons. :-

No woman or young person shall be employed or permitted to work or any chrome process.

3. Efficient exhaust draught:-

The following chrome processes shall not be carried on without the use of an efficient exhaust-draught, namely: -

- (a) grinding;
- (b) sieving;
- (c) batch mixing;
- (d) concentration.

²[3-A. Separation of certain processes:-

The following chrome processes namely: -

- (a) grinding of raw materials, and
- (b) sieving of raw materials.

shall be carried on in such manner and under such conditions as to secure effectual separation from any processes.]

4. Washing facilities. :-

(1) Where acidification, sulphate settling or washing, concentration, crystallisation, centrifugation or packing is carried out, there shall be provided close to each worker's station: -

- (a) wash places installed for washing hands and feet frequently in running water, and
- (b) a container holding at least 20 ounces of 10 percent solution of sodium bisulphate or any other suitable reducing agent.

(2) There shall also be provided and maintained in a cleanly stated and good repair washing accommodation under cover with a sufficient supply of soap and towels on the scale indicated below: -

At least one tap or stand pipe for every 10 employees and the tap or pipe shall be spaced not less than 1 -2 metres apart.

Note: - In computing the total number of taps required for the purposes of this rule, the taps or stand pipes as required under clause 5(l)(c) shall be included.

5. 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 time shall be allowed for washing to each person employed in a chrome process.

6. Flooring:-

The floor of every work room shall be -

- (a) of cement or similar other material so as to be smooth and impervious to water and provided with suitable gradient and drainage;
- (b) Maintained in sound condition and cleaned daily.

7. Medical facilities:-

(1) The occupier of the factory shall appoint a qualified medical practitioner who shall examine and treat all workers for chrome ulcerations on the premises at least thrice a week. Records of such examination and treatment shall be maintained in a form approved by the Chief inspector of Factories and shall be available to the Inspectors for inspection. Medicaments, dressing and other equipment required for such examination and treatment shall be provided-by occupier.

(2) The occupier shall in addition appoint a person trained in First Aid who shall inspect daily the hands and feet of all persons employed and shall keep a record of such inspection in a register maintained for the purpose in a form approved by the Chief Inspector of Factories.

Footnote:

- 1. A Inserted by G.N.L, and H.D. No. 44/48, dated 27th March, 1952.
- 2. Substituted vide G.N., D.D., P-118, dated 15th January, 1955.

13. Medical examination. :-

(1) Every person employed in a chrome process shall be examined by the Certifying Surgeon once in every calendar month, or at such other intervals as may be specified in writing by the Chief Inspector on a day of which due notice shall be given to all concerned and such examination shall take place on the factory premises.

(2) Every person employed shall present himself at the appointed time for examination by the Certifying Surgeon as provided in clause (1).

(3) A Health Register in Form No. 20 containing the names of all persons employed in a chrome process shall be kept.

(4) No person after suspension shall be employed in chrome process without a written sanction from the Certifying Surgeon entered in the Health Register.

14. Fencing of vessels:-

Every fixed vessel, whether pot, pan, vat or other structure, containing any dangerous material, and not so covered as to eliminate all reasonable risk of accidental immersion of any portion of the body of a person employed shall be fenced as follows :-

- (a) Each such vessel shall, unless its edge is at least 91.4 centimeters the adjoining ground or platform be securely fenced to a height of at least 91.4 centimeters above such adjoining ground or platform;
- (b) No plank or gang-way shall be placed across or inside any such vessel unless such plant or gang-way is:-
 - (i) at least 45.7 centimeters wide; and
 - (ii) securely fenced on both sides, either by upper and lower rails to a height of 91 centimeters or by other equally efficient means;
- (c) If any two such vessels are near each other and the space between them clear of any surrounding brick-work or other work, is either
 - (i) less than 45.7 centimeters in width, or
 - (ii) is 45.7 or more centimeters in width, but is not securely fenced on both sides to a height of at least 91.4 centimeters secure barriers shall be placed so as to prevent any passage between them.

15. Cautionary notice: -

A cautionary notice 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.

16. Exemption:-

If in respect of any factory the Chief Inspector is satisfied that owing to the exceptional circumstances or the infrequency of the process, or for any other reason, all or any of the provisions of this Schedule are not necessary for the protection of the persons employed in such factory, he may by certificate in writing exempt such factory from all or any of the provisions indicated in such certificate on such conditions as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector without assigning reasons.]

¹[Schedule XI

Manufacture or Manipulation of Carcinogenic Dye Intermediates

1. Application:-

The Schedule shall apply in respect of all factories or any part thereof where processes in which the substances, mentioned in paragraphs 3 and 4 are found, manufactured, handled or used and the processes incidental in this paragraph shall be referred to here in after as "the processes" and such a reference shall mean any or all the processes described in this paragraph.

2. Definitions:-

\For the purpose of this Schedule the following definitions shall apply, unless the context otherwise requires -

- (a) "controlled, substances" means chemical substances mentioned in paragraph 4 of this Schedule;
- (b) "efficient exhaust draught" means localised ventilation effect by mechanical means for the removal of gas, vapour, dust or fume so as to prevent them from escaping into the air of many place in which work is carried on. No draught, shall be deemed to be efficient which fails to remove smoke generated at the point where such gas, vapour, fume or dust originates; and
- (c) "prohibited substances" means chemical substances mentioned in paragraph 3 of this Schedule.
- (d) "first employment" means first employment in the said processes and also re-employment in such processes following any cessation of employment for a continuous period exceeding three calendar months.

3. Prohibited substances:-

For the purpose of this Schedule, the following chemical substances shall be classified as "prohibited substances" except when these substances are present or are formed as a by-product of a chemical reaction in a total concentration not exceeding one present :-

- (a) beta-naphthylamine and its salts;
- (b) benzidine and its salts;
- (c) 4-amino diphenyl and its salts;
- (d) 4-nitro diphenyl and its salts; and
- (e) any substance containing any of these compounds.

4. Controlled substances:-

For the purpose of this Schedule, the following chemical substances shall be classified as "controlled substances": -

- (a) alpha-naphthatamine or alpha-naphthylamine containing not more than one percent of beta-naphthylamine either as a by-product of chemical reaction or otherwise, and its

salts;

- (b) ortho-tolidine and its salts;
- (c) dianisidine and its salts;
- (d) dichloro benzidine and Its salts;
- (e) auramine; and
- (f) magenta.

5. Prohibition of employment:-

No person shall be employed in the said processes in any factory in which any prohibited substance is formed, manufactured, processed, handled or used except as exempted by the Chief Inspector as stipulated in paragraph 23.

6. Requirements for processing or handling controlled substances. :-

(1) Wherever any of the controlled substances referred to in paragraph 4 are formed, manufactured, processed, handled, or used, all practical steps shall be taken to prevent inhalation, ingestion or absorption of the said controlled substance by the working while engaged in processing that substance, and its storage or transport within the plant, or in cleaning or maintenance of the concerned equipment, plant machinery and storage areas.

(2) As far as possible all operations shall be carried out in a totally enclosed system. Wherever such enclosure is not possible, efficient exhaust draught shall be applied at the point where the controlled substances are likely to escape into atmosphere during the process.

(3) The controlled substances shall be received in the factory in tightly closed containers and shall be kept so except when these substances are in process or in use. The controlled substances shall leave the factory only in tightly closed containers of appropriate type. All the containers shall be plainly labelled to indicate the contents.

7. Personal protective equipment:-

(1) The following items of personal protective equipment shall be provided and issued to every worker employed in the said processes:-

- (a) long trousers and shirts or overalls with full sleeves and head
- (b) coverings The shirt or over all shall cover the neck completely; and rubber gum-boots.

(2) The following items of personal protective equipment shall be provided in sufficient numbers for use by workers employed in the said processes when there is danger of injury during the performance of normal duties or in event of emergency :-

- (a) rubber hand-gloves;
- (b) rubber aprons; and
- (c) airline respirators or other suitable respiratory protective equipment.

(3) It shall be the responsibility of the manager to maintain all items of personal protective equipment in a clean and hygienic condition and a good repair.

8. 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 the said processes are carried on.

9. Floors of workroom.:-

The floor of every workroom in which the sale processes are carried on shall be: -

- (a) smooth and impervious to water provided that asphalt or tar shall not be used in the composition of the floor, maintained in a state of good-repair,
- (b) with a suitable slope for easy draining and provided with gutters and thoroughly washed daily with the drain water being led into a sewer through a closed channel.

10. Disposal of empty containers.:-

Empty containers used for holding controlled substances shall be thoroughly cleaned of their contents and treated with an inactivating agent before being discarded.

11. Manual handling:-

Controlled substances shall not be allowed to be mixed, Filled, emptied or handled except by means of a scoop with a handle. Such scoop shall be thoroughly cleaned dally.

12. Instructions regarding risk:-

Every worker on his first employment in the said processes shall be fully instructed on the properties of the toxic chemicals to which he is likely to be exposed to, of the dangers involved and the precautions to be taken. Workers shall also be instructed on the measures to be taken to deal with an emergency.

13. Cautionary placards: -

Cautionary placards in the specified in appendix attached to this Schedule and printed in the language of the majority of the workers employed in the said processes shall be affixed in prominent places frequented by them in the factory, where the placards can be easily and conveniently read. Arrangements shall be made by the manager to instruct periodically all such workers regarding the precautions contained in the cautionary placards.

14. Obligations of the workers:-

It shall be the duty of the persons employed in the processes to submit themselves for the medical examination including expositive cytology or urine by the Certifying-Surgeon or the qualified medical practitioners as provided for, under these rules.

15. Washing and bathing facilities:-

(1) The following washing and bathing facilities shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the said processes: -

- (a) a wash place under cover having constant supply of water and provided with clean towels, soap and all nail brushes and with at least one stand pipe for every five such workers;

- (b) 50 percent of the stand pipes provided under clause (a) shall be located in bathrooms where both hot and cold water shall be made available during the working hours of the factory and for one hour thereafter;
 - (c) the washing and bathing facilities shall be in close proximity of the area housing the said processes;
 - (d) clean towels shall be provided individually to each worker; and
 - (e) in addition to the taps mentioned under clause (a), one stand pipe, in which water is made available, shall be provided on each floor.
- (2) Arrangement shall be made to wash factory uniforms and other work clothes everyday.

16. Food, drinks, etc. prohibited, in workroom:-

No worker shall consume food, drink, pan, supari or tobacco or shall smoke in any workroom in which the said processes are carried on and no worker shall remain in any such room during intervals for meals of rest.

17. Cloak room:-

There shall be provided and maintained in a clean state and in good repair for the use of the workers employed in the said processes: -

- (a) a cloakroom with lockers having two compartments-one for street clothes and the other for work clothes, and
- (b) a place separate from the locker room and the messroom, for the storage of protective equipment provided under paragraph 7.

The accommodation so provided shall be under the care of a responsible person shall be kept clean.

18. Mess room:-

There shall be provided and maintained for the use of workers employed in the said processes who remain on the premises .during the meal intervals, a mess room which shall be furnished with table and benches and provided with suitable means for warming food.

19. Time allowed for washing.:-

Before the end of each shift 30 minutes shall be allowed for bathing for each worker who is employed in the processes, further atleast 10 minutes shall be allowed for washing before each meal in addition to the regular time allowed for meals.

20. Restriction on age of persons employed:-

No worker under the age of 40 years shall be engaged in the factory in the said processes for the first time after the date on which the Schedule comes into force.

21. Medical facilities and records of examination and tests:-

- (1) The occupier of every factory to which the Schedule applies, shall:-

- (a) employ a qualified medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories; and
- (b) provided 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.

22. Medical examination by the Certifying Surgeon:-

(1) Every worker employed in the said processes shall be examined by a Certifying Surgeon within 15 days of his first employment. Such examination shall include tests for detection of methemoglobin in blood (hematological tests) paranitrophenol in urine, pulmonary function tests and central nervous system 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 six calendar months and such re-examination shall, wherever the Certifying Surgeon considers appropriate includes all the tests specified 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 20.

(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 this findings in the said certificate and the health register. The entry of his findings in those documents shall also include the period for which he considers that the said person is unfit to work in the said processes. The person so suspended from the provided with alternate placement facilities unless he is fully incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitable rehabilitated.

(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.

23. Exemptions - Prohibited substances:-

(1) The Chief Inspector may by a certificate in writing (which he may at his discretion revoke at any time), subject to such conditions, if any, as may be specified therein, exempt any process in the course of which any of the prohibited substances is formed, processed, manufactured, or used, from the provisions of paragraph 5 if he is satisfied that the process is carried out in a totally enclosed and hermetically sealed system in such a manner that the prohibited substance is not removed from the system except in quantities no greater than that required for the purpose of control of the process or such purposes as is necessary to ensure that the product is free from any of the prohibited substances.

(2) The Chief Inspector may allow the manufacture, handling or use of benezidine hydrochloride provided that all the processes in connection with it are carried out in a totally enclosed system in such

a manner that no prohibited substance other than benezidine hydrochloride is removed there from except in quantities no greater than that required for the purpose of control of the processes or such purposes as is substances and that adequate steps are taken to ensure that benezidine hydrochloride is, except, while not in a totally enclosed system, kept wet with not less than one part of water to two parts of benezidine hydrochloride at all times.

Appendix

Cautionary Placard/Notice Carcinogenic Dye Intermediates

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

Footnote:

1. Substituted by Notification dated 15.2.1995.

¹[Schedule XII

Manipulation of Acids or Alkalis

1. Definition.:-

For the purposes of this Schedule, acids or alkalis include sulphuric acid, nitric acid, hydrochloric acid, hydrofluoric acid or anhydrous liquid ammonia, sodium hydroxide or potassium hydroxide or mixtures thereof.

2. Application.:-

This Schedule shall apply in respect of all factories or any part thereof in which acids or alkalis are manufactured, store, handled, packed or used.

3. Flooring.:-

The floor of every workroom to which this Schedule applies shall be made Of impervious, fire-resistant material and shall be so constructed as to prevent collection of acids and alkalis. The surface

of such floor shall be smooth and cleaned as often as necessary, and maintained in a sound condition.

4. Protective equipment. :-

- (1) The occupier shall whenever so directed by an Inspector, provide, maintain in good order and keep in a clean condition for the use of all persons employed in any operation mentioned in paragraph 2. Suitable protective wear for hands and feet, suitable aprons, acid handlers, goggles and suitable respirators.
- (2) The protective equipment provided shall be used by the person concerned while at work.

5. Water facilities.:-

Where any of the operations mentioned in paragraph 2 is carried on there shall be provided close to the place of such operation, a source of water at a height of 2.1 metres secured from a pipe of 2.5 centimeters diameter and fitted with quick acting valve so that in case of injury to the worker by acid or alkalis, the injured part can be thoroughly flooded with water.

6. Cautionary notice.:-

A cautionary notice in the following form and printed in the language which majority of the workers employed understand, shall be affixed prominently close to the place where any of the operation mentioned "in paragraph 2 is carried on and where it can be easily and conveniently read by the workers. If any worker is illiterate, effective steps shall be taken to explain carefully to him contents of the notice so affixed: -

Cautionary Notice - Danger

Acids and Alkalis cause severe burns and vapours thereof may be extremely hazardous. In case of contact, immediately flood the part effected with plenty of water for at least 15 minutes.

7. Transport. :-

- (a) Acids or alkalis shall not be filled, moved or carried except in containers, including crates of sound construction and of sufficient strength.
- (b) Containers having a capacity of 11.4 liters of acids or alkalis shall be placed in a receptacle or crate and then carried by more than one person at a height below the waistline unless a suitable rubber-wheeled truck is used for the purpose.

8. Device for handling acids or alkalis.:-

- (a) Suitable tilting or lifting device shall be used for emptying jars and carboys containing acids.
- (b) Alkalis shall not be handled by bare hands but by means of a suitable scoop.

9. Opening of valves.:-

Valves fitted to containers holding acid or alkali which do not work freely shall not be forced open. They shall be opened by a worker suitably trained for the purpose.

10. Cleaning tanks, stills etc.

In cleaning out or removing residues from stills or other large chambers used for holding acids

wooden implements shall be used to prevent production of arseniuretted hydrogen (arsine).

11. Storage:-

Acids shall not be stored in any room used for storing turpentine, carbides, metallic powders and combustible materials.

12. Fire extinguishers:-

An adequate number of a suitable type of fire extinguishers shall be placed near each acid storage which shall be regularly tested and refilled. Clear instructions as to how the extinguishers should be used printed in the language which majority of workers employed understand shall be affixed near each extinguisher.

13. 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, 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 certificate in writing, exempt such factory from all or any of the provisions indicated in such certificate on such conditions as he may specify therein. Such certificate may, at any time, be revoked by the Chief Inspector.]

Footnote:

1. Inserted by G.N., D.D., No. FAC. 1255, dated 1st December, 1955.

¹[Schedule XIII

Manufacture Of Bangles And Other Articles From Cinematograph Film And Toxic And Inflammable Solvents

1. Definitions:-

For the purposes of this Schedule:-

- (a) "toxic inflammable solvents" mean:-
 - (i) solvents like acetone, tetrachlorethane, alcohol, denatured spirit, phenol, amylacitate, butyle, acetate, diacetone, alcohol and such other substances which in the opinion of this 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 processes in which toxic and inflammable solvents are used, by written certificate 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 such manufacturing process following any

cessation of employment for 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 woman 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.

(1) 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. 20 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 head- coverings provided in that behalf. The head-coverings so provided shall be washed daily.

6. Ventilation.:-

Every workroom in which cinematograph film or toxic and inflammable solvents or both are handled or manipulated or used shall be provided with inlet; 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 & toxic and inflammable solvents, cutting of such cylinders into bangles and heat treatment of the bangles 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 contact or proximity with any source of heat or heated to 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 loosed unwound cinematograph film other than a safety acetate film shall not at any time exceeding 100° 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 films shall be carried out in an 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 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 place or containers.

9. Disposal of waste films.:-

(i) All waste and scrap of cinematograph films shall be collected at frequent intervals during each day & be placed in strong metal receptacles fitted with self-closing lids and clearly marked with words "Film Waste".

(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 day's work waste and scrap film 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 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 is manipulated, used or stored.

(ii) No open fire or any smoking materials or matches nor anything likely to ignite or decompose cinematograph film shall be allowed in any store room or in 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 writing.

11. Caution with regard to electrical installation:-

All electrical installation and fittings shall be of flame-proof type.

12. Floor of workrooms:-

The floor of every workroom in which any of the said manufacturing process are carried on shall be:-

- (a) of cement or similar material so as to be smooth and impervious to water;
- (b) maintained in sound conditions;
- (c) kept free from materials, plant 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 day's work, at least ten minutes in addition in 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:-

There 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 at least 61.00 centimeters for every Five such persons employed at any one time and having a constant supply of water from taps or jets above the trough at intervals of not more than 61.00 centimeters; or
- (ii) at least one wash basin for every five such persons employed at any one time fitted with a waste pipe and plug and having a constant supply of water laid on; and
- (iii) a sufficient supply of clean towels made of suitable material which 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:-

The Chief Inspector may require any factory occupier to provide sufficient bath, accommodation for all persons engaged in all 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 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, drinks, etc. prohibited in workrooms: -

No food, drink, pan and supari or tobacco shall be consumed or brought by any worker into any workroom in which any of the said manufacturing processes is carried on.

18. Mess-room :-

If 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 room at any one time shall be kept constantly provided for each work-room and store-room.

(2) The fire-fighting appliances shall be maintained in a good condition and kept in a position which is easily accessible.

20. Means of escape in case of fire :-

Adequate means of escape in case of 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 notice 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. Exemption.:-

If in respect of any factory the Chief Inspector is satisfied 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 reasons.]

Footnote:

1. Inserted vide G.N., D.D. No. FAC 126, dated 22nd October, 1956.

¹[Schedule XIV

Processes Involving Manufacture, Use Or Evolution Of Carbon Disulphide And Hydrogen Sulphide

1. Definitions:-

For the purposes of this Schedule:-

- (a) (i) "breathing apparatus" means a helmet of face piece with necessary connections by means of which the person using it in a poisonous, asphyxiating or irritant atmosphere breathes ordinary air, or
- (ii) any other suitable apparatus approved in writing by the Chief Inspector:
- (a) "churn" means the vessel in which the prepared cellulose pulp is treated with carbon disulphide.
- (b) "dumping" means the drawing off or molten sulphate from the sulphur pots in the process of manufacture of carbon disulphide;
- (c) "efficient exhaust draught" means localised ventilation effected by mechanical means for the removal of gas or vapour, so as to prevent it as far as practicable from escaping into the air of any occupied room. No draught shall be deemed to be efficient if it fails to remove smoke generated at the point where such gas or vapour originates;
- (e) "fume process" means any process in which carbon disulphide or hydrogen sulphide is produced, used or given off;
- (f) "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;
- (g) "suspension" means suspension from employment in any fume process by written certificate in the Health Register (Form No. 20) signed by the Certifying Surgeon, who shall have power of suspension as regards all persons employed in any such process.

3. Efficient exhaust draught and supply of fresh air:-

(1) No churn shall be opened unless it has been previously subjected to an efficient exhaust draught so that when the churn is opened the concentration of carbon disulphide in the working room does not exceed 20 parts per million and no worker shall be allowed to introduce his head inside the churn or enter-it unless the concentration of carbon disulphide fumes inside the churn is 20 parts per million or less, and unless the exhaust draught arrangement is continued so as to reduce the concentration of carbon disulphide to 20 parts per million or less so long as the worker or his head is inside the churn.

(2) Hydrogen sulphide or carbon disulphide evolved in any room where any fume process is carried on shall be removed by an efficient exhaust draught.

(3) When the ventilation apparatus normally required in connection with the process referred to in clause (2) is ineffective or is stopped for any purpose whatever work in the said room which is not carried on mechanically without the presence of any person, shall not be carried on and the worker shall be made to leave the room as soon as possible but in any case not later than 15 minutes after such an occurrence:

Provided that any person wearing a breathing apparatus may be allowed to remain in the said workroom.

Explanation.:- The Chief Inspector of Factories may determine what constitutes normal ventilation apparatus in any given case on the representation duly made by the manager.

(4) In a room where any process is carried on so that irritant or offensive fumes are emitted there shall be provided suitable placed inlets of sufficient area for the supply of fresh air to room.

4. Air analysis. :-

(1) Air analysis for the measurement of concentration of carbon disulphide and hydrogen sulphide shall be carried out every 8 hours or at such intervals as may be directed by the Chief Inspector at places where fume process is carried on and the result of such analysis shall be recorded in a register specially maintained for this purpose.

(2) If the concentration of either carbon disulphide or hydrogen sulphide exceeds 20 parts per million, the manager shall report the concentration reached and the duration of such concentration to the Chief Inspector. The report shall state the reasons for such increase.

(3) On receipt of such information, the Chief Inspector may direct the manager to take such measures as may be specified in that behalf and it shall be the duty of the manager to comply with such directions.

5. Electric fittings in carbon disulphide process room except the spinning room.:-

All electric fittings in which a fume process involving carbon disulphide is carried on, other than a spinning room, shall be flame-proof construction and all electric conductors shall either be enclosed in metal conduits or to be lead sheathed.

6. Washing facilities.:-

The occupier shall provide and maintain in a clean state and in good repair, for the use of all persons employed in a fume process, 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 standpipes being spaced not less than 1.2 metres feet apart with a sufficient supply of soap and clean towels.

7. Protective equipment.:-

(1) The occupier shall provide, maintain in good repair and keep in clean condition protective clothing and other equipment as specified in the table below:

Table

Process	Protective clothing and other equipment
(i) Dumping	Overalls, face-shields, gloves and foot-wear; all made of suitable material.

(ii) Spinning	Suitable aprons and gloves.
(iii) Processes involving or likely to involve contact with viscose solution	Suitable gloves and footwear.
(iv) Any other process	Protective clothing and equipment as may be directed by the Chief Inspector of Factories by an order in writing.

(2) The occupier shall make arrangements for the examination and cleaning of all the protective equipment at the close of each days' work and for the repair or replacement thereof when necessary.

8. Use of protective equipment.:-

Every person shall use the protective equipment provided to him under paragraph 7.

9. Storage of protective equipment.:-

A suitable room, rooms or lockers shall be provided exclusively for the storage of all the protective equipment supplied to employees and no such equipment shall be stored at any place other than the room, rooms or lockers so provided.

10. Mess room. :-

(1) There shall be provided and maintained for the use of all the persons remaining in the premises during the meal intervals, a suitable mess room providing accommodation of at least 0.9 sq. metres per head and furnished with. -

- (a) a sufficient number of tables and chairs or benches with back rests,
- (b) an arrangement for washing hands and utensils, and adequate means for warming food.

(2) The mess room shall be kept under the charge of a responsible person and shall be kept clean.

11. Prohibition relating to smoking etc., in carbon disulphide fume process room.:-

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 producing carbon disulphide is caused and notice in the language understood by the majority of the workers shall be posted in the factory prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked light or spark into such room:

Provided that fire, naked light or other means of producing naked light or spark may be carried in such room only when required for the purposes of the process itself under the direction of a qualified supervisor.

12. Prohibition to remain in fume process room. :-

No person during his intervals for meals or rest shall remain in any room wherein fume process is carried on.

13. Medical examination.

(1) Every person employed in a fume process shall be examined by the Factory Medical Officer once in every six months and by the Certifying Surgeon once in every 12 months or at such other intervals as may be specified in writing by the Chief Inspector on a date or dates of which due notice shall be given to all such person and such examination shall take place on the factory premises.

(2) Every person employed in a fume process shall present himself at the appointed time for such

examination.

(3) A Health Register containing the names of all the persons employed in a fume process shall be kept in Form No. 20.

(4) No person, after suspension, shall be employed in a fume process without the written sanction of the Certifying Surgeon entered in the Health Register.

14. Breathing apparatus and measures.:-

- (1) There shall be provided in every factory where fume process is carried on, sufficient supply of -
- (a) a breathing apparatus,
 - (b) oxygen and suitable means of its administration, and life belts.
- (2) (i) The breathing apparatus and other appliances shall :-
- (a) be maintained in good condition and kept in an ambulance room or in some other place so as to be readily available, and
 - (b) be thoroughly inspected once every month by a competent person appointed in writing by the occupier.
- (ii) A record of the condition of the breathing apparatus and other appliances shall be entered in a book provided for that purpose which shall be produced when required by an Inspector.
- (3) Sufficient number of workers shall be trained and given a periodic refresher course in the use of breathing apparatus and respirators and artificial respiration so that at least 2 such trained persons would be available in each fume process room during all the working hours of the factory.
- (4) Respirators shall be kept properly labelled in clean dry light proof cabinets and if liable to be affected by fumes, shall be protected by suitable containers. Respirators shall be dried after use and shall be periodically disinfected.

15. Cautionary placard and instructions. :-

Cautionary placards in the form specified by the Chief Inspector and printed in the language of the majority of the workers employed shall be affixed in prominent places in the factory where they can be easily and conveniently read by the workers and arrangements shall be made by the occupier to instruct periodically all workers employed in a fume process regarding the health hazards connected with their duties and the best preventive measures and method to protect themselves.

16. Exemption:-

If in respect of any factory department or departments, 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 in such department or departments, he may, by certificate in writing exempt such department or departments 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 without assigning any reasons.]

Footnote:

1. Added vide G.N., E & S.W.D., No. FAC 1155, dated 10th January, 1959.

¹[Schedule XV

Manufacture and Manipulation of Dangerous Pesticides

1. Definitions :-

For the purpose of this schedule:-

- (a) "pesticides" means agents used for the purpose of destroying or arresting the growth or increase of harmful organisms;
- (b) "dangerous pesticides" means pesticides or mixtures of such pesticides as are included in the list of dangerous pesticides in Appendix I attached to this Schedule;
- (c) "Suspension" means suspension from employment in any process in which a dangerous pesticide is used by written certificate in the Health Register (Form No. 20) signed by the Certifying Surgon, who shall be competent to suspend all persons employed in such process;
- (d) "first employment" means first employment in any manufacturing process referred to in this Schedule and also re-employment, in such manufacturing process following any cessation of employment for a continuous period exceeding three calendar months;
- (e) "efficient exhaust draught" means localised ventilation effected by mechanical means, for the removal of gas, vapour, dust or fumes so as to prevent them from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fume or dust originates;
- (f) "manipulation" includes mixing, blending, filling, emptying, packing, handling or using of a dangerous pesticide.

2. Application:-

This Schedule shall apply in respect of all factories or any part thereof in which the process of manufacture or manipulation of a dangerous pesticide (hereinafter referred to as "the said manufacturing process") is carried on.

3. Cautionary placard :-

A cautionary placard and the form specified in Appendix II attached to this schedule, and printed in the language understood by the majority of the workers employed shall be affixed in prominent place frequented by them. In the factory where the placard can be easily and conveniently read by the workers, arrangement shall be made by the occupier to instruct periodically all workers employed in the said manufacturing process regarding the health hazards connected with it and methods to protect themselves.

4. 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 the said manufacturing process is carried on or in any room in which dangerous pesticide is stored.

5. Air space :-

In every room in which the said manufacturing process is carried on, there will be at least 500

cubic feet of air space, excluding any space occupied by machinery equipped or any other articles, for every person employed therein and in computing this air space, no height over 12 feet shall be taken into account.

6. Prohibition of the said manufacturing process without efficient exhaust draught:-

The said manufacturing process shall not be carried on without the use of efficient exhaust draught when: -

- (a) a container holding a dangerous pesticide is emptied, or
- (b) a dangerous pesticide is introduced into a container tank hopper to machine or filled in small sized packings, or
- (c) a powder or a liquid is prepared from a dangerous pesticide, or a dangerous pesticide is blended unless the process is completely enclosed.

7. Floor of workroom:-

The floor of every workroom in which the said manufacturing 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) sloping and provided with gutters for adequate drainage, and thoroughly washed daily by means of hose-pipe.

8. Work benches:-

The work benches at which a dangerous pesticide is manipulated shall: -

- (a) have a smooth surface and be of non-absorbent material preferably of stainless, and be cleaned daily.

9. Waste :-

- (a) A suitable receptacle with tightly fitting cover shall be provided and used for depositing waste like cloth paper or other materials soiled with a dangerous pesticide.
- (b) All such contaminated waste shall be destroyed by burning at least once a week.

10. Empty containers used for dangerous pesticides.

Such containers shall be destroyed or thoroughly cleaned of their contents and treated with an inactivating agent before being discarded.

11. Manual handling:-

A dangerous pesticide shall not be required or allowed to be manipulated by hand except by means of a long handled scoop.

12. Protective clothing:-

(1) Protective clothing shall be provided and maintained in good repair for all workers and such clothing shall be worn by the workers concerned. The protective clothing shall consist of: -

- (a) long pants and shirts or overalls with long sleeves and head coverings, and
- (b) rubber gloves, gum boots, rubber aprons, chemical safety goggles and respirators :

Provided that where the pesticide contains oil, the rubber gloves, bolts, and aprons shall be of synthetic rubber.

- (2) Where the worker has to handle a dangerous pesticide: -
 - (a) containing phosphorous or nicotine the protective clothing shall be washed daily both inside and outside, and if the protective clothing mentioned in clause (a) of sub-paragraph (1) is soiled with such pesticides it shall be changed immediately, and
 - (b) not containing phosphorous or nicotine the protective clothing mentioned in clause (a) of sub-paragraph (1) shall be washed frequently.

13. Medical examination:-

- (1)
 - (a) No person shall be employed in the said manufacturing process unless he has been examined by the Certifying Surgeon within seven days preceding his first employment and certified fit for such employment.
 - (b) No person shall be employed in the said manufacturing process unless he is re-examined by the Certifying Surgeon at least once in every three calendar months.
 - (c) The Certifying Surgeon shall examine persons employed in the said manufacturing process by giving due notice to all concerned.
 - (d) A Health Register in Form 20 containing the names of all workers employed in the said manufacturing process shall be kept.
 - (e) No person after suspension shall be employed without written sanction from the Certifying Surgeon entered in or attached to the Health Register.
- (2) The Chief Inspector may order any suitable clinical test or tests to be carried out in respect of the workers employed in any factory where the said manufacturing process is carried on at such intervals as he deems fit.

14. Medical facilities.:-

- (1) The occupier shall engage a qualified medical practitioner who shall examine and if necessary treat on the premises of the factory all workers who handle dangerous pesticides for effects of excessive absorption at least once a week. The occupier shall make necessary arrangement to ensure quick availability of a qualified medical practitioner in emergency cases.
- (2) Medicaments including antidots and other equipment necessary for treatment of excessive absorption of a dangerous pesticide shall be provided by the occupier.
- (3) Records of such examination and treatment shall be maintained in such form as may be approved by the Chief Inspector and shall be made available to Inspector for inspection.

15. Time allowed for washing :-

Before each meal and before the end of the day's work, at least 10 minutes in addition to the regular rest interval, shall be allowed for washing to each person who has been employed In the said

manufacturing process.

16. Washing and bathing facilities:-

- (1) There shall be provided and maintained in cleanly state and in good repair for the use of all persons employed 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 stand pipes spaced at intervals of not less than three feet.
- (3) Not less than one half of the total number of washing place 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. Food, drinks, etc. prohibited in workrooms:-

No food, drink, pan supari or tobacco shall be consumed or brought by any worker into any work room in which the said manufacturing process is carried on.

18. Cloak-room:-

There shall be provided and maintained for the use of persons employed in the said manufacturing process: -

- (a) a cloak room for clothing put off during working hours with adequate arrangements for drying clothing if wet; and
- (b) separate and suitable arrangements for the storage of protective clothing provided under paragraph 12.

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 rest 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 responsible person and shall be kept clean.

20. Exemption:-

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 see therein. Such certificate may at any time be revoked by the Chief Inspector.

21. Manipulation not to be under taken:-

Manipulation of pesticide other than those maintained in Appendix I of the schedule shall not be undertaken in any factory unless a certificate regarding its dangerous nature or otherwise is obtained from the Chief Inspector.

Appendix I

List Of Dangerous	Pesticides
Parthlon.	Diazeomon.
Hexaethyl Tetraphosphate.	Tetra ethyl pyrophosphate.
Tetra ethyl distriopy pyrophosphate.	Demeton(Syntex).
Sheadan (OMPH).	Para-Oxon (E. 600).
Methyl Parathion.	Dimefox.
Sulphotepp.	EPN.
Nicotine or its compounds.	Mercury compounds.
Methyl Bromide.	Cyanides.
Chlordane.	Endrin.
Aldrin.	Dieldrin
Texaphene.	Dinitro-o-cresol.
Arsenical compounds.	Cryolite.
Penta chlorophenol.	

Appendix II

Cautionary Placard

1. Pesticides are generally poisonous substance.
2. Therefore in rooms where these are handled:
 - (a) do not chew, eat, drink or smoke and keep food or drink, away from pesticides.
 - (b) use the protective wear supplied e.g., gloves, 'aprons, clothes, boots, etc.
3. Either before meals or when any part of the body has come in contact with the pesticides, wash with soap and water :
4. Before leaving the factory, take a bath and change your clothing.
5. Do not use any container that has contained a pesticide as a pot for food or drink.
6. Do not handle any pesticide with bare hands but use a handled scoop.
7. Avoid spilling of any pesticide on body, floor, or table.
8. Maintain scrupulous cleanliness of body and clothing and of your surroundings.
9. In the case of sickness like nausea, vomiting or giddiness, inform the manager who will make necessary arrangements for treatment.]

Footnote:

1. Schedule XV added vide G.N. & L.D. No. FAC. 1060/13224-1, dated 1st January, '64

¹[Schedule XVI

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. (1) The purity of oxygen and hydrogen shall be tested by a competent person at hourly intervals as the following points: -
 - (a) in the electrolyser room;
 - (b) at the gas holder in-let; and
 - (c) at the suction and of the compressor :
- ²[Provided that, if the compression unit and the gas holder inlets are fitted with automatic oxygen-in-hydrogen or hydrogen- in-oxygen purity indicating instruments, which trips the supply to the driving motors in the event of the purity dropping below 98 per cent, testing of gas at hourly intervals at these two points shall not be necessary.]
- (2) The purity figures shall be entered and signed by the person carrying out such tests in the register.
3. The oxygen and hydrogen gases shall not be compressed, if their purity as determined under paragraph 2 above falls below 98 per cent at anytime.
4. There shall be at least two gas holder for each kind of gas compressed and the gas holders for the 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.
5. Each gas holder shall be fitted with a low alarm and a trip switch to stop the compression in the event of the bell of the gas holder reaching, within 39 centimeters from its lowest working level.
6. The water and caustic soda or caustic potash used for making lye shall be ³[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, the hydrogen gas pipe is opened for repairs or for any other purposes, on reconnection thereof it shall be purged of all air before hydrogen is allowed to pass through it.
9. All electrical wiring and apparatus in the electrolyser rooms and in the hydrogen compressor 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 elgetrolyser plant and the gas holders and compressor shall be subjected to welding, brazing, soldering or cutting until steps have been taken to remove any explosive substance from that part and render the part safe for such operations and after the completion of such operations

to explosive substance shall be allowed to enter that part until the metal has cooled sufficient to prevent risk of explosion.

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

12. Every part of the electrolyser plant and the gas holders and compressor shall have a regular schedule of over hauling and checking and every defect noticed shall be rectified forthwith.]

Footnote:

1. Schedule XVI added vide G.N.E. and L.D. No. KHS-437/FAC. 1163/21536-1, dated 21st May, 1965.
2. Proviso to paragraph 2(1) substituted vide G.N.E. & L.D. No. KH-SH 853/FAC 1164-3510-T, dated the 18th October, 1968.
3. Substituted for the words "Chemically pure within pharmaceutical limits" vide 18th October, 1968.

¹[Schedule XVII

Handling and Processing Of Asbestos. Manufacture Of Any Article of Asbestos and Any Other Process of Manufacture or Otherwise In Which Asbestos Is Used In Any Form

1. Application:-

This Schedule shall apply to all factories or parts of factories in which any of the following processes is carried on:

- (a) breaking, crushing, disintegrating, opening, grinding, mixing or sieving of asbestos and any other processes involving handling and manipulation of asbestos incidental thereto;
- (b) all processes in the manufacture of asbestos textiles including preparatory and finishing processes;
- (c) making of insulation slabs or sections, composed wholly or partly of asbestos, and processes incidental thereto;
- (d) making or repairing of insulating mattresses, composed wholly or partly of asbestos, and processes incidental thereto;
- (e) manufacture of asbestos cardboard and paper;
- (f) manufacture of asbestos cement goods;
- (g) application of asbestos by spray method;
- (h) sewing, 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.

2. Definitions:-

For the purpose of this Schedule: -

- (a) "asbestos" means any fibrous silicate mineral and any admixture containing actinolite, amosite, anthophyllite, chrysotile or any mixture thereof, crude, crushed or opened;
- (1) the term "asbestos dust" means airborne particles of asbestos or settled particles of asbestos which are liable to become airborne in the working environment;
- (2) the term "airborne asbestos dust" means, for purposes of measurement, dust particles measured by gravimetric assessment or other equivalent method;
- (3) the term "respirable asbestos fibers" means asbestos fibers having a diameter of less than 3 μ m, and a length-to-diameter ratio greater than 3:1. Only fibers of a length greater than 5 μ m shall be taken into account for the purpose of measurement;
- (4) the term "exposure to asbestos" means exposure at work to airborne respirable asbestos fibers or asbestos dust, whether originating from asbestos or from minerals, materials or products containing asbestos;
- (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 connections 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 overall and head covering which (in either case) shall when worn exclude asbestos dust.

3. Tools and equipment:-

(1) Any tools or equipment used in processes to which this Schedule applies shall be such they do not create asbestos dust above the permissible limit or are equipped with efficient exhaust draught.

(2) Prohibition:-

- (a) Every process or equipment related to the milling of asbestos or processing of asbestos fiber, release dust beyond the permissible limit, such process or use of such equipment shall be prohibited.

- (b) The use of crocidolite and products containing this fibre shall be prohibited.
- (c) Spaying of all forms of asbestos shall be prohibited.
- (d) The installation of friable asbestos insulation materials shall be prohibited.

(3) Substitution.: - Asbestos shall be used only when its risks can be prevented or controlled, otherwise, it shall be replaced, when technically feasible, by other materials or the use of alternative technologies, scientifically evaluated as harmless or less harmful.

(4) Exposure to the workers.: - The number of persons assigned to work involving exposure to asbestos and the duration of their exposure shall be kept to the minimum required for the safe performance of the task.

(5) Demarcation of area.: - The areas of activity which involve exposure to asbestos shall be clearly demarcated and indicated by warning signs restricting unauthorised access.

4. Exhaust draught:-

(1) An efficient exhaust draught shall be provided and maintained to control dust from the following processes and machines;

- (a) manufacture and conveying machinery, namely :-
 - (i) preparing, grinding or dry mixing machines;
 - (ii) guarding, card waste and ring spinning machines, and looms;
 - (iii) machines or other plant with asbestos; and
 - (iv) machines used for the sewing, grinding, turning, drilling, abrading or polishing; in the dry state, or articles composed wholly or partly of asbestos;
- (b) cleaning and grinding of the cylinders or other parts of a carding machines;
- (c) chambers, hoppers or other structures into which loose asbestos is delivered or passes;
- (d) work-benches for asbestos waste sorting or for other manipulation of asbestos by hand;
- (e) work places at which the filling or emptying of sacks, skips or other portable containers, weighing or other process incidental which is effected by hand, is carried on;
- (f) sack cleaning machines;
- (g) mixing and blending of asbestos by hand: and
- (h) any other process in which dust is given off into the work environment.

(2) Exhaust ventilation equipment provided in accordance with sub-paragraph (1) shall, while any work of maintenance or repair to the machinery, apparatus or other plant or equipment in connection with which it is provided is being carried on, be kept in use so as to produce an exhaust draught which prevents 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 bags which shall be isolated from all work areas.

5. Testing and examination of ventilating system:-

(1) All ventilating system 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 Form No. 20-A containing particulars of such examination and tests and the state of the plant and the repairs or alternations (if any) found to be necessary shall be kept and shall be available for inspection by an Inspector.

6. Segregation in case of certain process:-

Work places where the use of asbestos may result in the release of asbestos dust into the air shall be separated from the general working environment in order to avoid possible exposure of other workers to asbestos.

7. Storage and distribution of loose asbestos:-

All loose asbestos shall, while not in use, be kept in suitable closed receptacles which prevent the escape of asbestos dust 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(1).

(3) Occupier shall dispose of waste containing asbestos in a manner that dose not pose a health risk to the workers concerned, including those handling asbestos waste, or to the population in the vicinity of the enterprise.

9. Maintenance of floors and workplaces:-

(1) In every room in which any of the requirements of this Schedule apply -

(a) the floor, 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 article 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, be carried out by means of vacuum cleaning equipment so designed and constructed and so used that asbestos dust neither escapes nor is discharged into the air of any work-place.

(3) When the cleaning is done by any method other than that mentioned in sub-paragraph (2), the person doing cleaning work and any other person employed in that room shall be provided with respiratory protective equipment and protective clothing.

(4) The 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 surface 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 or apparatus:

(c) in cleaning the cylinders, including the doffer cylinders, or other parts of a carding machine by means of hand stickles, and in filling, beating or levelling in the manufacture or repair of insulating mattresses, and

(d) in any other operation of 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 dedusted under an efficient exhaust draught or by vacuum cleaning and shall be washed at suitable intervals. The cleaning schedule and procedure shall be such as to ensure the efficiency in protecting the water.

(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 conveniently accessible position for all persons employed in operations to which this Schedule applies for storing of personal clothing. This should be separated from the accommodation provided under sub-paragraph (2) 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 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. 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.

(4) Sufficient supply of soap and nail brushes shall be provided.

(5) At least thirty minutes time shall be allowed, within working hours, for Changing, showering or washing after the work shift.

13. Mess room:-

(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 mess room which shall be furnished with:-

(a) sufficient tables and benches with back rest, and

(b) adequate means for warming food.

(2) The mess room shall be placed under the charge of a responsible person and shall be kept clean.

14. Prohibition of employment of 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 posted in the plant prohibiting smoking at such areas.

16. Cautionary notice:-

(A) Cautionary notice shall be displayed at the approaches and along the parameter of every asbestos processing area to warn all persons regarding.:-

(a) hazards to health from asbestos dust:

- (b) need to use appropriate equipment:
- (c) prohibition of entry to unauthorised persons, or authorised persons but without protective equipment.

(B) Information from occupier.: -

The following information shall be sent by the occupier of the factory.: -

- (a) the type and quantity of asbestos used;
- (b) the activities and processes carried out'
- (c) the products manufactured;
- (d) the number of workers exposed and the level and frequency of their exposure;
- (e) the preventive and protective measures taken;
- (f) any other information necessary to safeguard the worker's health.

(C) Such notices shall be in the language understood by the majority of the workers.

- (D) (1) Labelling.: - The labelling shall be printed in the language or lanaguages in common use in the State indicating that the container or product contains asbestos, the inhalation of asbestos dust carries a health risk and appropriate protective measures shall be taken.
- (2) The occupier of the factory shall provide a data-sheet listing the asbestos, content, health hazards and appropriate protective measures for the material or product to consumers.

(E) Occupier shall provide workers with adequate information in an appropriate form on the health hazards to their families or others which could result from taking home clothing contaminated by asbestos dust.

- ²[(F) (i) A worker who has removed himself from a work situated for which he has a reasonable justification to believe, presents serious danger to his life or health shall
- (a) alert his immediate supervisor;
 - (b) be protected from retaliatory or disciplinary measures.
- (ii) No measure prejudicial to a worker shall be taken by reference to the fact that, in good faith, he complained of what he considered to be breach of statutory requirements or a serious inadequacy in the measures taken by the employer in respect of occupational safety and health and the working environment].

17. Air monitoring:-

- (1) To ensure the effectiveness of the control measures, monitoring of asbestos fiber in air shall be carried out once at least in every shift and measured or calculated in terms of time-weighted average concentration and the record of the result so obtained shall be entered in a register specially maintained for the purpose by qualified person. Membrance Filter Technique (MFT) shall be used for the measurement of the air borne asbestos fiber dust.

- (2) The records of the monitoring of the working environment shall be kept for a period of not less than 30 years.

18. Medical facilities and records of medical examinations and tests:-

- (1) The occupier of every factory or part of the factory to which the Schedule applies, shall:-
 - (a) employ a qualified medical practitioner for medical surveillance of the workers covered by this schedule whose employment shall be subject to the approval of the Chief Inspector to Factories:
 - (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.

19. 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 examination shall include pulmonary function tests, tests for detecting asbestos fibers in sputum and chest X-ray. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
- (2) Every worker employed in the processes referred to in sub-paragraph (1) shall be re-examined by a Certifying Surgeon at least once in every twelve calendar months. Such examinations shall, wherever, the Certifying Surgeon considers appropriate, include all the tests specified in sub-paragraph (1) except chest X-ray which shall be carried out once in 3 years.
- (3) The Certifying Surgeon after examining a worker, shall issue a Certificate of Fitness in Form 27-A. The record of examination and re-examination carried out shall be entered in the certificate and the certificate shall be kept in the custody of the manager of the factory. The record of each examination carried out under sub-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 20.
- (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 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 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.

20. (1) Appropriate medical examination shall continue to be available to workers after termination of an assignment involving exposure to asbestos.

(2) The medical examinations, tests and investigations provided in this Schedule shall be carried out as far as possible in working hours and shall entail no cost to the worker.

(3) The results of medical examination shall be used to determine health status with regard to exposure to asbestos and shall not be used to discriminate against the worker.

(4) Workers shall be informed in an adequate and appropriate manner, of the results of the medical examinations and receive individual advice concerning their health in relation to their work.

(5) When continued assignment to work involving exposure to asbestos is found to be medically inadvisable, every effort shall be made to provide the workers concerned with other means of maintaining their income.

³[(6) Records of the monitoring of exposure of workers as well as the sections of their medical files relevant to health hazards due to exposure to asbestos and chest radiographs shall be maintained and keep maintaining the health record of every worker upto a minimum period of 40 years from the beginning of the employment or 15 years after retirement or cessation of the employment whichever is later.

(7) In case of closure of the factory or after termination of the assignment of a worker, records and information kept in accordance with paragraph 20(6) above shall be deposited in the office of the Chief Inspector of Factories, Gujarat State.]

Footnotes:

1. Subs. by Notfn. dated 15.2.1995 [15.2.1995].
2. Added by Noti. No. KHR-2007-58-FAC-2006-2573-M(3) dt 21-6-07 G.G.G Exty.Pt IV-A No. 101 dt 27-6-2007 P. 101-1
3. Subs, by Noti. No. KHR-2007-17-FAC-2006-GOI-172-M(3) dt 28-2-07 G.G.G Exty.Pt IV-A No. 28 dt 23-3-2007 P. 28-1

Schedule XVIII

Manufacture of Articles from Refractory Materials Including Manufacture of Refractory Bricks

1. Application:-

This Schedule shall apply to the following processes: -

(1) handling, moving, breaking, crushing, grinding or sieving of any refractory materials containing not less than 25 per cent total silica for the purpose of manufacture: -

- (a) of articles used in the construction of furnaces and flues, of crucibles, and
- (b) of compositions or other materials used in the preparation of moulds in which metals are cast; or

(2) any process in the manufacture of refractory bricks as hereinafter defines:

Provided that, nothing in this Schedule shall apply: -

- (a) to handling, moving, mixing or sieving of natural sand, or
- (b) to the manipulation of rotten rock in the preparation of moulds used in metal foundaries:

Provided further that, if the Chief Inspector of Factories is satisfied in respect of any factory or

part thereof that owing to the special conditions of work or otherwise, any of the provisions of this Schedule can be suspended or relaxed without any danger to the health of the person employed therein, he may by an order in writing grant such suspension or relaxation for such period and no such conditions as he may think fit. Any such order may be revoked at any time.

2. Definitions:-

For the purposes of this Schedule:-

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

3. No refractory material shall be broken in pieces by manual labour unless is carried out in the open air:-

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

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

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

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

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

5. All chutes, conveyors, elevators, screens, selves and mixers used for manipulating refractory material shall, unless the material is so wet that dust will not be produced, be enclosed and be provided with efficient exhaust draught.

6. No refractory material so dry as to produce dust shall:-

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

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

- 7.** (a) The floors of all places where refractory bricks are dried, other than the floors of tunnels, ovens or chamber dries not normally entered by persons employed shall, after each lot of refractory bricks has been removed, be carefully cleaned of all debris and the part, being cleaned shall be kept damped while the cleaning is being done.
- (b) There shall be provided in every such place a constant supply of water laid on under adequate pressure with sufficient connections and flexible branch pipe and sprinkler to enable water to be supplied directly to every part of the floor.

8. No drying stoves in which refractory bricks are backed by fires before being placed in the kilns shall be used.

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

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

11. The dust or powder of refractory materials shall not be used for sprinkling the moulds in refractory brick making:

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

12. No worker shall be allowed to work on any dusty process or at any place where dust of any refractory materials is present in the atmosphere:

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

13. Medical examination.:-

(a) Every worker employed on any of the processes specified in sub-paragraphs (1) and (2) of paragraph 1 shall be medically examined in such manner and at such intervals as may be specified by any rules made under the Workmen's Compensation Act, 1923 (VIII of 1923), or if no such rules have been framed under the said Act, every worker shall be medically examined by the Certifying Surgeon before employment on any of the aforesaid processes and at interval not exceeding six months thereafter.

(b) Subject to sub-paragraph (c), an X-ray' examination of the chest of every worker referred to in sub-paragraph (a) shall be carried out: -

- (i) if he is already in employment on the date of the coming into force of the Gujarat Factories (Amendment) Rules, 1968, within six months of such date and at an interval of every three years, thereafter;
- (ii) if he is employed after such date, within one month of the date of his employment and at an interval of every three years thereafter, and the result of every such X'ray-

examination shall be produced before the Certifying Surgeon within a month of the examination.

- (c) If the Certifying Surgeon, during the course of medical examination of any worker under sub-paragraph (c) has reason to, suspect onset of any chest disease, he may direct the manager or the occupier to get an 'X' ray examination of the worker done and to produce the 'X' ray plate before him within a specified time and on receipt of such direction the manager or the occupier, as the case may be, shall carry out the direction.
- (d) The Certifying Surgeon shall grant to each worker examined a certificate specifying therein whether or not the worker was considered fit to be employed on any of the processes specified in paragraph. 1.
- (e) The manager shall maintain a register in which the findings and recommendations of the Certifying Surgeon in respect of every worker and in respect of every medical examination shall be maintained duly signed by the Certifying Surgeon.
- (f) A worker not declared fit shall not be employed on any of the aforesaid processes and he shall be employed on only such other process or he shall be subject to such other examination or treatment as may be directed by the Certifying Surgeon.
- (g) No fees shall be charged from any worker for the medical examination and it shall be the responsibility of the occupier and the manager to comply with the provisions of this Schedule.

14. In case any existing plant or machinery needs alteration, modification or replacement or in case any new plant is required, to be installed, to comply with the provisions of this Schedule, such alteration, modification, replacement or installation of the plant or machinery shall be carried on within a period not exceeding one year from the date of the coming into force of the Gujarat Factories (Amendment)* Rules, 1968:

Provided that, the Chief Inspector of Factories in consideration of special and exceptional circumstances by an order in writing may extend this period for such reasonable length of time as he may think fit.

¹[Schedule XIX

Chemical Works - Part I

1. Application: - This Schedule shall apply to all manufactures 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 where any process or activity in relation to the industries is specified in this First Schedule of the Act;
- (b) "efficient exhaust draught" means localised ventilation effected by mechanical or other means for the removal of gas, vapour, fume or dust to prevent it from escaping into the air or 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 or nitro of 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, causes fatality or exert serious affliction of health, or chronic harmful effects on the health of persons exposed to it due to its inherent chemical effects, in respect of substances whose Threshold Limit Value (TLV) is specified in the second Schedule of the Act, exceeding the concentration specified therein would make the substance toxic;
- (j) "emergency" means a situation leading to a circumstance or set of circumstances in which there is danger to the life or health of persons or which could result in big fire or explosion or pollution to the work and outside environment, affecting the workers or neighbourhood in a serious manner, demanding immediate action;
- (k) "dangerous chemical reactions" means high speed reactions, runaway reactions, delayed reactions, etc. and are characterized by evolution of large quantities of heat, intense release of toxic or flammable gases or vapours, sudden pressure build-up etc.;
- (l) "manipulation" means mixing, blending filling, emptying, grinding, sieving, drying, packing, sweeping handling using etc.;
- (m) "approved personal protective equipment" means items of personal protective equipment conforming to the relevant Indian Standard Institute specifications (ISI) 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 working inside exist or are likely to develop during working.

Footnote:

1. Ins. by Notfn. dated 15.2.1995 [15.2.1995]

Part II

General Requirements Applying To All the Works in the First Schedule of the Act

1. Housekeeping:-

- (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 item shall be stored or heated or consumed in or near any part of the plant or equipment.

4. Cautionary notices and instructions:-

(1) Cautionary notice 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 shall 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 shall 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 these 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 the supervisory personnel shall include the significance of different types of symbols and colours used on the labels stuck or painted on the various types of containers and pipe-lines.

5. Evaluation and provision of safeguards before the commencement of process:-

(1) Before commencing any process or any experimental work, or any new manufacture covered under first Schedule of the Act, the occupier shall take all possible steps to ascertain definitely all the hazards involved both from the actual operations and the chemical reactions. including the dangerous chemical reactions. The properties of the raw materials used, the final products to be made and any by-products derived during manufacture, shall be carefully studied and provisions shall be made for dealing with any hazards including effects on workers 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 shall 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 the items covered under first Schedule of the Act whether on experimental basis, or as pilot plant or as trial production or as large scale manufacture.

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

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

6. Authorised entry:-

Authorised persons only shall be permitted enter any section of the factory of plant 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 dally 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 the first Schedule of the Act, 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 Indian Standard Institute (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 labeling and colour coding arrangements to enable identification of the containers and their contents indicating the hazards and safe handling methods and shall conform to the respective Indian Standard Institute (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 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 second Schedule of the Act.

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

- (4) (a) Storage of chemicals and intermediate products, which are highly unstable or reactive or explosive shall be limited to the quantities required for two months use.
- (b) Whenever the quantities laid down in the above clause (a) are to be exceeded, the permission of the Chief Inspector shall be obtained.
- (c) Notwithstanding anything contained in clauses (a) and (b) above, the Chief Inspector of Factories may direct any factory carrying out processes covered in the first schedule of the Act, to further limit the storage of hazardous substances to quantities less than two months in considerations of safety.

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

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

10. Facility for isolation:-

The plant and equipment shall be so constructed and maintained as to enable quick isolation of plant or part of plant or equipment, with appropriate indication. One copy of the layout plant indicating the isolation facilities shall always be available with the security, 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 to the hazards in the processes covered by the 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 shall be final.

12. Alarm systems:-

(1) Suitable and effective alarm systems giving audible and visible indications, shall be installed at the control-room as well as in all strategic locations where process-control arrangements are available so as to enable corrective action to be taken before the operational parameters exceed the predetermined safe levels or lead to conditions conducive for the outbreak of fire or explosion to occur: such alarm system shall be checked daily and tested every month at least once to ensure its performance efficiency at the 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 draught maintenance of negative pressure etc., shall be provided in all plants, containers, vessels, sewers, drains, flues, ducts, culverts, and hurried pipes and equipment to control the escape and spread of substances which are likely to give rise to fire or explosion or toxic hazards during normal working and in the event of accident or emergency.

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

(3) The substances that would have escaped into the work atmosphere before 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. Conduct 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 and equipment:-

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

- (a) before the test is carried out, each vessel shall be thoroughly cleaned and examined externally, and as far as practicable internally also for surface defects, corrosion, and foreign matter. During the process of cleaning and removal of sludge, if any, all due precautions shall be taken against fire or explosion, if such sludge is of pyrophoric nature or contains spontaneously combustible chemicals;
- (b) as soon as the test is completed, the vessel shall be thoroughly dried internally and shall be clearly stamped with the marks and figures 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 plants, equipment, machinery which in the likely event of failure may give rise to an emergent situation shall be examined once in a month by the competent person.

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

(4) All repair work including alteration, modification and addition to be carried out to the plant, equipment and machinery shall be done under the supervision of a responsible person who shall evolve a procedure to ensure safety and health of persons doing the work. When repairs or modification is done on pipeline, and joints are required to be welded, but welding of joints shall be preferred. Wherever, 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 first Schedule of the Act, shall be state, 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 the first Schedule 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 of 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 and person to enter or work inside the confined spaces.:-

- (a) to 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 the safety and health of persons entering into or working inside, the confined spaces;
- (b) to regulate the entry or work inside the confined spaces a 'permit to work system' which shall include the safeguards so developed as required under sub-clause (a) above;
- (c) to render the place safe before testing the confined space for entry into or work by washing or cleaning with neutralizing agents; or purging with steam or inert gases and making adequate forced ventilation arrangements;
- (d) to arrange to carry out such tests as are necessary for the purpose by a competent person and ensure that the confined space is safe for the persons to enter or work Such testing shall be carried out as often as is necessary during the course of work to ensure its continued safety;
- (e) to arrange to educate and train the personnel who would be required to work in confined spaces about the hazards involved in the work. He shall also keep in readiness the appropriate and approved personal protective equipment including arrangements for rescue, resurrection and first aid, and shall arrange supervision of the work at all times by a responsible and knowledgeable person.

(2) The manager shall maintain a log book of every entry into or work in, confined spaces and such record shall contain the details of persons assigned for the work, the location of the work and such other details that would have a bearing on the 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 precaution 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 carry out the permit to work system shall be physically fit in all respects taking into consideration the demands and nature of the work before entering into the confined space. Such person shall be adequately informed about the correct work procedure 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 resurrexion 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) appointed and approved protective equipment shall be used while carrying out the permit to work system;
- (g) after completion of work subject to the 'permit to work system' the person responsible shall remove all the equipment and tools and restore to the original condition so as to prevent any danger while carrying out regular process.

21. Safety sampling personnel: -

The occupier shall ensure the safety to 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 in the process area where dangerous or toxic or flammable or explosive substances could be evolved. These arrangements shall ensure that concentrations, which are either harmful or could result in explosion,' are not permitted to be built up in the work environment.

23. Procedure for meeting emergencies:-

(1) The occupier of every factory carrying out the works covered in the first Schedule of the Act, shall arrange to identify all types of possible emergencies that could in the processes during the course of work or while carrying out maintenance work or repair work. The emergencies so identified shall be reviewed yearly.

(2) The occupier shall formulate a detailed plan to meet all such identified emergencies including

arrangements for summoning outside help for rescue and fire fighting 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 recognizable warning arrangements to caution all persons inside the plant as well as the neighbouring community, if necessary, to enable evacuation of persons and to enable the observance of emergency procedures by the persons who are assigned emergency duties. All concerned must 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 assigned emergency duties.

(7) All the employees of the factory shall be trained about the action to be taken by them including evacuation procedure during emergencies.

(8) All emergency procedures must be repeated every three months and deficiencies, if any, in the achievement of the objectives shall suitably be corrected.

(9) The occupier shall arrange to have ten percent of the workers trained in the use of first aid, fire-fighting appliances and in the rendering of specific 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 person.

24. Danger due to effluents:-

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

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

Part III

Fire and Explosions Risks

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 surface likely to become hot shall be suitably protected.

(3) The classification of work area in terms of its hazard potential and the selection of electrical

equipment or other equipment that could constitute a source of ignition shall be in accordance with respective Indian Standard.

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

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

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

2. Static electricity:-

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

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

3. Lightning protection:-

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

4. Process heating:-

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

5. Leakage of flammable liquids:-

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

(2) Waste material in contact with flammable substances shall be disposed off suitably under the supervision of knowledgeable and responsible person.

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

6. Safety valves:-

Every still and every closed vessel 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 relieve the pressure. These appliances shall be maintained in good condition.

7. Installation of pipe line etc. :-

All pipelines carrying flammable or explosive substances shall be protected from mechanical damage and shall be examined by a responsible person once in a week to detect any deterioration or

defects, for accumulation of flammable or explosive substances, and record kept of any defects found and repairs made.

8. Fire-fighting systems:-

(1) Every factory employing 500 or more persons and carrying out processes listed in the First Schedule of the Act, shall provide:-

- (a) trained and responsible fire-fighting squad so as to effectively handle the fire-fighting and life-saving equipment in the event of fire or other emergency. Number of persons in this squad shall 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 and emergency services;
- (b) squad leaders shall preferably be trained in a recognized Government institution and their usefulness enhanced by providing residence on the premises;
- (c) squad personnel shall be provided with clothing and equipment including helmets, boots and belts.

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

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

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

Part IV

Risks of Toxic Substances

1. Leakage:-

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

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

2. Drainage:-

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

3. Covering of vessels:-

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

(2) Such vessel shall, unless its edge is at least 90 centimeters above such adjoining ground or platform.

(3) Where such vessels adjoin and the space between them clear of any surrounding brick or other work is either less than 45 centimeters in width or in 45 or more centimeters in width, but is not securely fenced on both to a height of atleast 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 staurators used in the manufacture of sulphate of ammonia; and 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 gume and substance shall have efficient continuous exhaust draught. Such arrangement shall be interlocked in the process control wherever possible.

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

5. Work bench:-

All the work benches used in 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 substance and the contents of such receptacle shall be destroyed by burning or using other suitable method under the supervision of a responsible person.

(2) During the course of manufacture, whenever any batch or intermediate products having toxicity is rejected or considerations of quality, sufficient precautions shall be taken to render them innocuous 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 V

Special Provisions

1. Special precautions for nitro or amino processes:-

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

(2) No part of the plant or equipment or implements which was in contact with nitro or amino

compounds shall be repaired, or handled unless they have been emptied and thoroughly cleaned and decontaminated.

(3) Filling of containers with nitro or amino compounds shall be done only by using a suitable scope to avoid physical contact and the drying of the containers in the stove shall be done in such a manner that the hot and contaminated air from the stove is not drawn into the 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 designed places of work, for use during emergency involving the poisoning with nitro or amino compounds.

2. Special precautions for "chrome processes":-

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

(2) There shall be washing facilities located very near to places where wet chrome processes such as leaching acidification, sulphate setting, 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 glycerine, vaseline etc. and water proof plaster in a separated box readily accessible to the workers so as to protect against perforation of nasal septum.

3. Special precautions for processes carried out in all glass vessels:-

(1) Processes and chemical reactions such as manufacture of finayl chloride, benzyl chloride etc. which are required to be carried out in all glass vessels shall have suitable means like substantial wiremesh covering to protect persons working nearby in the event of breakage of glass vessel.

(2) Any spillage or emission of vapour from the 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 or 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 chlorated 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 process for use during the emergency.

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

5. Special precautions in the use of plant and equipments made from reinforced plastics:-

- (1) All plant and equipments 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-work shall be supported so that total loads local to the branches on the vessel or tank do not exceed their design values.
- (5) After erection, all plant and equipments shall be subjected to a pressure test followed by a thorough examination by a competent person. The test and examination shall be as per relevant 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 tests 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 VI

Additional Welfare Amenities

1. Washing Facilities:-

- (1) There shall be provided and maintained in every factory for the use of all the workers, taps for washing, at the rate of one 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 the First Schedule of the Act and employing 50 workers or more shall provide for all the workers working in a shift, mess room facilities which are well ventilated and provided with tables and sitting facilities along with the provision of cold and hygienic drinking water facilities.
- (2) Such facilities shall include suitable arrangements for cleaning and washing and shall be maintained in a clean and hygienic condition.

3. Cloak room facilities:-

- (1) The occupier of every factory carrying out any process covered in the first Schedule of the Act 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 shall be such as to enable the keeping of the

clothing in a 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 I (1 p.) if it is not possible to locate the washing facilities, the cloak room facilities shall have adequate and suitable arrangements for cleaning and 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 a clean and hygienic condition.

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

(3) Notwithstanding anything contained in sub-para (1)-above, the Chief Inspector 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 VII

1. Duties of workers:-

Every worker employed in the processes covered in the First Schedule of the Act and Appendix 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 arrangements as soon as he is aware of any such defect.

(2) Before commencing any work, all workers employed in processes covered in the First Schedule of the Act 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 co-operate in all respects with the management while carrying out any work or any emergency duty assigned to them in pursuance of this schedule and shall always use all the personal protective equipments issued to them in a careful manner.

(4) All workers employed in the processes covered in the First Schedule of the Act or appendix shall not smoke in the process area or storage area. If special facilities are provided by the management only such facilities shall be used.

(5) All workers employed in the process covered in the First Schedule of the Act shall not remain in unauthorised place or carry out unauthorised work or improvise any arrangements or adopt short out method or misuse any of the facilities provided in pursuance of this Schedule in such a manner as to cause risk to themselves as well as to others employed.

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

Part VIII

Restrictions on the Employment of Young Persons 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 persons under the age of 18, in any of the processes covered in First Schedule of the Act on, consideration of health and safety of women and young persons.

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

Appendix

(Concerning Special Bathing Accommodation in Pursuance of Para 4 of Part VI)

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

¹[Schedule XX

²[Manufacture, Handling and Usage of Benzene and Substances Containing Benzene]

1. ²[This Schedule shall apply in respect of factories or parts thereof in which benzene or substances containing benzene are manufactured, handled, stored, packed or used.]

2. Definitions :-

For the purpose of this Schedule:-

- (a) "substances containing benzene" means substances wherein benzene content exceeds ³[1 (one)] per cent by volume.
- (b) "substitute" means a chemical which is harmless or less harmful than benzene and can be used in place of benzene;
- (c) "enclosed system" means a system which does 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.

Explanation:- No draught shall be deemed to be efficient if it fails to remove smoke generated at the point where such gases, vapours, fumes or dusts originate.

3. ⁴[Prohibition and Substitution]:-

(a) Benzene or substances containing benzene shall not be used as 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.

(b) 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.

(c) The Chief Inspector may, subject to confirmation by the State Government permit exemptions from 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 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 workroom in which benzene substances containing benzene are used shall be equipped with an efficient exhaust draught or other means for the removal of benzene vapours to prevent their escape into the air of the workroom so that the concentration of benzene in the air does not exceed 25 parts per million by volume or 80 mg/m.

(c) Air analysis of or the measurement of concentration of benzene vapours in air shall be carried out every 8 hours or at such intervals as may be directed by the Chief Inspector at places where process involving use of benzene is carried and the result, of such analysis shall be recorded in a register specially maintain for this purpose. If the concentration of benzene vapours in-air as measures by air analysis exceed 25 parts per million by volume or 80 mg/m³ 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 with suitable respirators or face masks. The duration of such exposure shall be limited as far as possible.

5. Measures against skin contact:-

(a) Workers who are likely to come in contact with liquid benzene or liquid substance containing benzene shall be provided with suitable gloves, aprons, boots and where necessary vapour tight chemical goggles, made of material not effected 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 substance containing benzene.

7. Labeling:-

Every container holding benzene or substances containing benzene shall have a lable with the word "Benzene" add approved 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 for any other purposes shall be prohibited.
- (b) Workers shall be instructed on the possible dangers arising from such misuse.

9. Prohibition of consuming of 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, stored, packed, handled or used. Smoking and chewing tobacco or pan shall be prohibited in such work rooms.

10. Instructions regards risks:-

Every worker on his first employment shall be fully instructed on the properties of benzene or substances containing benzene which he has to handle and of the dangers involved. Workers shall also be instructed on the measures to be taken to deal with in an emergency.

11. Cautionary notices:-

Cautionary notices in the form specified in Appendix 'B' presented in the language easily read and understood by the majority of the workers shall be displayed in prominent places in the workroom where benzene or substances containing benzene are manufactured, stored, packed, handled or used.

12. Washing facilities, cloak rooms 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 is 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 Examination:-

- (a) Every worker who is to be employed in processes involving use of benzene or substances containing benzene shall undergo: -
 - (i) a thorough pre-employment medical examination including a blood test for fitness for employment by Certifying Surgeon, or by medical officer of a public/Government hospital.
 - (ii) periodically medical examination including blood test and other biological tests at intervals of every 6 months by a laboratory.
- (b) Certificates of pre-employment medical examination and periodical medical examination

including tests, shall be entered in a health register in Form No. 20, which shall be produced on demand by an Inspector.

(c) If the factory medical officer on examination at any time is of the opinion that any worker has developed signs or symptom of benzene exposure, he shall make a record of his finding in the said register and inform the manager in writing. On receipt of the information from the factory medical officer, the manager of the factory shall send the worker so found exposed, to the Certifying Surgeon who shall, after satisfying himself, with the finding of the factory medical officer and conducting necessary examinations issue orders of temporary shifting of the worker or suspension of the worker in the process.

(d) The medical examination shall be arranged by the occupier or manager of the factory and the worker so examined shall not bear any expense for it.

⁵**[14. Prohibition of use of Benzene:-** Use of benzene and substances containing benzene is prohibited in the following process: -

- (a) manufacture of varnishes, paints and thinner;
- (b) cleaning and degreasing operations.]

Footnotes:

1. Inserted vide Government of Gujarat, Education and Labour Department. No. KH-L-107/FAC/1075-100434-LJ, dated 20th June, 1980 pub. in Guj. Govt. Gaz. ExU, Pt. 1-L. dt. 24.7.1980, p. 4010 to 4017.
2. Subs. by Notfn. dt. 15.2.1995 [15.2.1995].
3. Added by Notfn. dt. 15.2.1995 [15.2.1995].
4. Subs. by Notfn. dt. 15.2.1995 [15.2.1995].
5. Added by Notfn. dt. 15.2.1995 [15.2.1995]

Appendix A

[Sec Clause 3(B)]

1. Production of benzene.
2. Process where benzene is used for chemical synthesis.
3. Motor spirits (used as fuel)

Appendix B

[See Clause 11]

(a) The Hazards:-

- (i) Avoid breathing of benzene vapours.
- (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 Measure 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 housekeeping.

(c) The Protective equipment to be used.:-

- (i) Use respiratory protective equipments in places where benzene vapours are present in high concentration.
- (ii) In emergency, use self-generating oxygen mask or oxygen or air cylinder masks.
- (iii) Wear hand gloves, aprons, goggles and gum boots to avoid contact with 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 the 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, take the following measures:

If the exposed person is conscious

- (a) Move him to fresh air in open.
- (b) Lay down without a pillow and keep him quiet and warm.

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 skinless, ears, finger, nail beds) he should be provided with medical oxygen or oxygen-carbon dioxide mixture. If needed,

he should be given artificial respiration. Oxygen shall be administered by a trained person only.]

¹[**Schedule XXI**

Process of Extracting Oils and Fats from Vegetables and Animal Sources in Solvent Extraction Plants.

1. Definition:-

For the purposes of this Schedule.: -

- (a) "solvent extraction plant' means a plant in which the process of extracting oils and fats from vegetable and animal sources by use of solvents is carried on.
- (b) "solvent' means a flammable liquid such as pentane, hexane, heptane used for the recovery of vegetable oils;
- (c) "Flame Proof enclosure' as applied to electric machinery or apparatus means an (enclosure that will withstand, when covers or other access doors properly secured, and internal explosion of the flammable gas or vapour which may enter or which may originate inside the enclosure without suffering damage and without communication internal inflammation or explosion 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 specialized knowledge of oils and fats with a minimum experience of 5 years in a solvent extraction plant shall also be considered to be a competent person;

Provided further that the State Government may accept any other qualifications if in its opinion they are equivalent to the qualification aforesaid.

2. Location and Layout:-

- (1) No solvent extraction plant shall be permitted to be constructed or extended to within a distance of 30 meters form the nearest residential locality.
- (2) A 1.5 meter high continuous wire-fencing shall be provided around the solvent extraction plant upto a minimum distance of 15 meters from the plant.
- (3) No person shall be allowed to carry any matches or an open plane or fire inside the area bound by the fencing.
- (4) Boiler houses and buildings where open flame processes are carried on shall be located at least 30 meters away from the solvent extraction plant.
- (5) If godowns and preparatory processes are, at a distance of less than 30 meters from the solvent extraction plant, these shall be at least 15 meters distance away from the plant, and 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 installation:-

- (1) All electrical motors and wiring and other electrical equipment installed or housed in solvent extraction plant shall be of flame-proof construction.
- (2) All metal parts of the plant and building including various tanks and containers where solvents are stored or are present and all parts of electrical equipment not required to be energised shall be properly bonded together and connected to earth so as to avoid accidental rise in the electrical potential of such parts above the earth potential.

4. Restriction on smoking:-

Smoking shall be strictly prohibited within 15 meters distance from solvent extraction plant. For the purpose, "No Smoking" signs shall be permanently displayed in the area.

5. Precaution against friction:-

- (i) All tools and equipments including ladders, chains and other lifting tackle required to be used in solvent extraction plant shall be of non-sparking type.
- (ii) No machinery or equipment in any solvent extraction plant shall be belt driven, unless the belt use is of such a type that it does not permit accumulation of static electricity to a dangerous level.
- (iii) No person shall be allowed to enter and work in the solvent extraction plant if wearing clothes made of nylon or such other fibre that can generate static electrical charge, or wearing footwear which is likely to cause sparks by friction.

6. Fire-fighting apparatus:-

- (i) Adequate number of portable fire extinguishers, suitable for use against flammable liquid fires shall be provided in the solvent extraction plant.
- (ii) An automatic water spray sprinkler system or a wet 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. Precaution against power failure:-

Provision shall be made for the automatic cutting off of steam in the event of power failure and also for emergency overhead water supply for feeding water by gravity to condensers which shall come into play automatically with the power failure.

8. Magnetic separators:-

Oil cake shall be fed to the extractor by a conveyor through a hopper and a magnetic separator shall be provided to remove any pieces of Iron during its transfer.

9. Venting:-

- (i) Tanks containing solvents shall be protected with emergency venting to relieve excessive internal pressure in the event of fire.
- (ii) All emergency relief vents shall terminate at least 6 meters above the ground and be so located that vapours shall 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 an- solvent before it is discharged into a sump which should be located within the fenced area but not closer than 8 meters to the fence,

11. Ventilation:-

The solvent extraction plant shall be well ventilated and If the plant is housed in a building, the building shall be provided with mechanical ventilation with provision for at least six air changes per hour.

12. Housekeeping:-

(i) 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.

(ii) Waste materials such as oily rags, other wastes and absorbent 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.

(iii) Space within the solvent extraction plant and within 15 meters from the plant shall be kept from any combustible materials any spills of oil or solvent, shall be cleaned up immediately.

13. Examination and repairs:-

(i) The solvent extraction plant shall be examined by the competent person to determine any weakness or corrosion and wear once in ever 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.

(ii) No repairs shall be carried out to the machinery or plant except under the direct supervision of the competent person.

(iii) Facility shall be provided for purging the plant with inert gas or steam before opening for cleaning or repairs and before introducing solvent after repairs.

14. Operating personnel:-

The operating of the plant and machinery in the solvent extraction plant shall be in the charge of such duly qualified and trained persons as are certified by the competent person to be fit for the purpose and no other person shall be allowed to operate the plant and machinery.

15. Employment of women and young persons:-

No women or young person shall be employed in the solvent extraction plant.

16. Vapour detection :-

A suitable type of flame-proof and portable combustible gas indicator shall be provided and maintained in good working order and a schedule of 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. Examination:- 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 the protection on of the workers in the factory, the Chief Inspector may be a certificate in writing (which he may in his discretion revoke at any time) exempt such factory from all or any of such provision subject to conditions, if any as he may specify therein.

Footnote:

1. Ins. by Notfn. dated 15.2.1995.

¹[Schedule XXII

Manufacturing Process Or Operations In, Carbon Disulphide Plants.

1. Application:-

This schedule shall apply to all electric furnaces in which carbon disulphide is generated and all other plants where carbon disulphide after generation is condensed, refined and stored. This schedule is in addition to and not in derogation of any of the provision of the Act and rules made thereunder.

2. Construction, installation and operation:-

(1) The buildings in which electric furnaces are installed and carbon disulphide after generation is condensed and refined shall be segregated from other parts of the factory and shall be of open type to ensure optimum ventilation and the plant layout shall be such that only a minimum number of workers are exposed to the risk of any fire or explosion at any one time,

(2) Every electric furnace and every plant in which carbon disulphide is condensed, refined and stored with all their fittings and attachments shall be good construction, sound material and of adequate strength to sustain the internal pressure to which the furnace or the plant may be subjected to and shall be designed that carbon disulphide liquid and gas are in closed system during their normal working.

(3) The electric furnace supports shall be firmly grounded about 60 centimeters in concrete or by other effective means.

(4) Every electric furnace shall be installed and operated according to manufacturer's instructions and these instructions shall be clearly imparted to the personnel incharge of construction and operation.

(5) The instructions regarding observance of correct furnace temperature, sulphur dose, admissible current or power consumption and periodical checking of charcoal level shall be strictly complied with.

3. Electrodes:-

(1) Where upper ring electrodes made of steel are used in the electric furnace, they shall be of seamless tube construction and shall have arrangement for being connected to cooling water system though a siphon built in the electrodes or through a positive pressure water-pump.

(2) The arrangement for cooling water referred to in sub-paragraph (1) shall be connected with automatic alarm system which shall 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 stop the further supply of water. The alarm system and the actuating device shall be checked every day.

4. Maintenance of charcoal level:-

When any electric furnace is in operation, it shall be ensured that the electrodes are kept covered with charcoal bed.

5. Charcoal separator:-

A cyclone type of charcoal separator shall be fitted on the off-take pipe between the electric furnace and sulphur separator to prevent entry of pieces of charcoal into the condensers and piping.

6. Rapture discs and safety seals:-

(1) At least two rupture discs of adequate size which shall blow off at a pressure twice the maximum operating pressure shall be provided on each furnace and shall either be mounted directly on the top of the furnace or each through an independent pipe as close as possible to the furnace.

(2) A safety water seal shall be provided and tapped from a point between the charcoal separator and the sulphur separator.

7. Pyrometer and manometers:-

(1) Each electric furnace shall be fitted with adequate number of pyrometers to give an indication of the temperature as correctly as reasonably practicable at various points in the furnace. The dials for reading the temperature shall be located in the control room.

(2) Manometers or any other suitable devices shall be provided for indicating pressure.:-

(a) in the off take pipe before and after the 'sulphur' separator; and

(b) in primary and secondary condensers.

8. Check valves:-

All piping carrying carbon disulphide shall be fitted with check valves at suitable positions so as to prevent gas from flowing back into any electric furnace in the event of its shutdown.

9. Inspection and maintenance of electric furnaces:-

(1) Every electric furnace shall be inspected internally by a competent person: -

(a) before being placed in service after installation.

(b) before being placed in service after reconstruction or repairs; and

(c) periodically every time the furnace is opened for cleaning or de-ashing or for replacing electrodes.

(2) When an electric furnace is shut down for cleaning or de-ashing.:-

(a) the brick lining shall be checked for continuity and any part found defective shall be removed.

(b) after removal of any part of the lining referred to in (a) the condition of the shell be closely inspected; and

(c) any plates forming shell found corroded to the extent that safety of the furnace is endangered shall be replaced.

10. Maintenance of records:-

The following hourly records shall be maintained in a log book:

- (a) manometer readings at the points specified in sub-paragraph 7(2);
- (b) gas temperature indicated by pyrometers and all other vital points near the sulphur separator and primary and secondary condensers;
- (c) water temperature and flow of water through the siphon in the electrodes, and;
- (d) primary and secondary voltages and current and energy consumed.

11. Electrical apparatus, wiring and fittings:-

All buildings in which carbon disulphide is refined or stored shall be provided with electrical apparatus, wiring and fittings which shall afford adequate protection from fire and explosion.

12. Prohibition relating to smoking:-

No person shall smoke or carry matches, fire or naked light or other means of producing a naked light or spark in buildings in which carbon disulphide is refined or store, and a notice in the language understood by a majority of the workers shall be posted in the plant prohibiting smoking and carrying of matches, fire or naked light or other means of producing naked light or spark into such rooms.

13. Means of escape:-

Adequate means of escape shall be provided and maintained to enable persons to move to a safe place as quickly as possible in case of an emergency. At least two independent staircases of adequate width shall be provided in every building housing the furnace at reasonable intervals at opposite ends. These shall always be kept clear of all obstructions and so designed as to afford easy passage.

14. Warning in case of fire:-

There shall be adequate arrangements a 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:-

- (1) Adequate number of suitable for extinguishers or other fire fighting-equipment shall be kept in constant readiness for dealing with risks involved and depending on the amount and nature of materials stored.
- (2) Clear instruction as to how the extinguishers or other equipment shall 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:-

- (1) Open or semi-enclosed spaces for storage of bulk sulphur shall be sited with due regard to the dangers which may arise from sparks given off by nearby locomotives etc., and precautions shall be taken to see that flames, smoking and matches and other sources of ignition do not come in contact with the clouds of dust arising during handling of bulk sulphur.
- (2) All enclosures for bulk sulphur shall be of non-combustible construction, adequately

ventilated and so designed as to provide a minimum of ledges on which dust may lodge.

(3) The bulk sulphur in the enclosures shall be handled in such a manner as to minimize the formation of dust clouds and no flame, smoking and matches or other sources of ignition shall be employed during handling and non-sparking tools shall be used whenever sulphur is shovelled or otherwise removed by hand. No repairs involving flames, heat or use of hand or power tools shall be made in the enclosure where bulk sulphur is stored.

17. Liquid Sulphur:-

Open flames, electric sparks and other sources of ignition, including smoking and matches, shall be excluded from the vicinity of molten sulphur.

18. Training and supervision:-

(1) All electric furnace and all plants in which carbon disulphide is condensed, refined or stored shall be under adequate supervision at all times while the furnace and plant are in operation.

(2) Workers in charge of operation and maintenance of electric furnaces and the plants shall be properly qualified and adequately trained.

19. Washing facilities:-

(1) The occupier shall provide and maintain, in a clean state and in good repair, for the use of all persons employed, a washing 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 of stand-pipes being spaced not less than 120 centimeters apart with a sufficient supply of soap and clean towels, provided that towel shall be supplied individually to each workers if so ordered by the Inspector.

(2) All the workers employed in the sulphur storage and melting operations shall be provided with a nail brush.

20. Personal protective equipment:-

(1) Suitable goggles and protective clothing consisting of over all (without pockets); gloves and foot wear shall be provided for the use of operatives: -

- (a) when operating valves or cocks controlling fluids etc.,
- (b) drawing off of molten sulphur from sulphur pots; and
- (c) handling charcoal or sulphur.

(2) Suitable respiratory protective equipment shall be provided and stored in the appropriate place for use during abnormal conditions or in an emergency.

(3) Arrangements shall be made for proper and efficient cleaning of all such protective equipments.

21. Cloak rooms. :-

There shall be provided and maintained for use of all persons employed in the processes, a suitable cloakroom for clothing put off during work hours and suitable place separate from the cloakroom for the storage of overalls or working clothes. The accommodation so provided shall be placed in the charge of a responsible person and shall be kept clean.

22. 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.

Footnote:

1. Ins. by Notfn. dated 15.2.1995.

¹Schedule XXIII

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 measure on the A weighted scale is 90 decibel or above.
- (c) "Decible" means one-tenth of "Bel" which is the fundamental division of a logarithmic scale used to express the ratio of two specified or implied quantities, the number of "Bels" denoting such a ratio being the logarithm to the base of 10 of this ratio. The noise level (or the pressure level) corresponds to a reference pressure of 20×10^{-6} newtons per square or 0.0002 dynes per square centimeter which is the threshold of bearing, that is, the lowest sound pressure level necessary to produce the sensation of hearing in average healthy listeners. The decible in abbreviated form is dB.
- (d) "Frequency" is the rate of pressure variations expressed to 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 new work with slow meter response.
- (f) "A-weighting" means making graded adjustments in the intestines 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. :-

In every factory, suitable engineering control or administrative measures shall be taken to ensure, so far as reasonably practicable, that no worker is exposed to high noise level.

4. Where it is not possible to reduce the noise exposure to the levels specified in paragraph-3 by reasonably practicable engineering control or administrative measure, the noise exposure shall be reduced to the greatest extent feasible by such control measures and each worker so exposed shall be provided with suitable ear protectors so as to reduce the exposure below high noise level.

5. Every worker employed in areas where the noise exceeds high noise level shall be subjected to an auditory examination by a registered Medical Practitioner having qualification M.B.B.S. or equivalent

within 14 days of his first employment and thereafter, shall be re-examined at least once in ever 12 months. Such initial and periodical examinations shall include tests which the said Doctor may consider appropriate.

Footnote:

1. Ins. by Notfn. dated 15.2.1995.

¹Schedule XXIV

Welding/Cutting Operation with the Use of Lpg/Acetylene/Argon.

1. Application:-

This schedule is applicable to all operations in welding/cutting of materials with the use of liquefied petroleum gas or acetylene gas or argon etc: in conjunction with oxygen gas.

2. Equipment:-

- (1) Gas cylinder whether filled or empty shall not be stored in rooms where welding or cutting work is being done.
- (2) Liquefied Gas Cylinder, when is used shall always be kept in an upright position and shall be so placed that they cannot be knocked over.
- (3) Opens flames, lights, lighting of fire and smoking shall be prohibited in close proximity to any cylinder containing flammable gases, except those which are in use for welding cutting or heating.
- (4) All cylinders shall be stored at a safe distance of not less than 10 meters from all operation which produce, flames, sparks or molten metal or result in excessive heat.
- (5) Every gas cylinder shall be provided with efficient Standard type pressure regulator and back flow of gas will be restricted by second non-return type valve.
- (6) All welding/cutting torch shall be standard type which should be provided with non-return valve.
- (7) Suitable type of fire extinguishers shall be provided near the welding/cutting place and also near the gas cylinder storage.
- (8) Pipe line from gas cylinders shall be painted with distinctive colours for identification of each gas.

3. (1) Welding and cutting operation shall be prohibited in areas containing explosive or flammable dusts, gases, oil or vapours.

(2) Welding/cutting operations that are carried out in places where persons other than the welders and their helpers are working or passing shall be means of suitable stationary or portable screens at least 2.15 (7-Ft.) in height.

(3) All equipments like welding/cutting torch, pipe lines, brackets, non return valves and pressure regulators shall-be examined by a competent person having know how of such equipments, at least once in a period of 15 days;

(4) The welding/cutting process shall be carried out by workers specially trained in that job and

know of the hazards or fires, back-fire and explosion.

(5) A log book of examination of equipments and a register of trained workers for welding/cutting operation shall be maintained in the forms as directed by the Inspectors.

Footnote:

1. Ins. by Notfn. dated 2.3.1987. G.G. GaZ. Part IV-A dated 2.3.1987, page 130.

¹**Schedule XXV**

Manufacture of Pottery

1. Application:-

These provisions shall apply to all factories engaged in manufacture of pottery except a factory in which any of the following articles are made;

- (a) Unglazed or salt-glazed bricks and tiles: and
- (b) architectural terracotta made from plastic clay and either unglazed or glazed with a leadless glaze only.

2. Definitions:-

For the purpose of this schedule: -

- (a) "pottery" includes earthenware, stoneware, procelain, china clay, and any other articles made from such clay or from a mixture containing clay other material such as quartz, flint, felspar and gypsum;
- (b) "efficient exhaust draught" means localised ventilation effected by mechanical or other means for removal of dust or fume so as to prevent it from escaping into air of any place in which- work is carried on-No draught shall be deemed efficient which fails to remove effectively dust or fume generated at the point where dust or fume originates;
- (c) "Jetting" includes scalloping, lowing, sand papering sand sticking, brushing or any other process of cleaning of pottery wave in which dust is given off.
- (d) "leadless glaze" means a glaze which does not contain more than one percent of its dry weight of lead compound calculated as lead monoxide;
- (e) "low solubility glaze" means a glaze which does not yield to dilute hydrochloric acid more than five percent of its dry weight of a soluble lead compound calculated as lead monoxide when determined in the manner described below;
- (f) A weighed quantity of the material which has been dried at 100 degrees centigrade and thoroughly mixed shall be continuously shaken for one hour at the common temperature, with 1000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 percent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphite;
- (g) "ground or powdered flint or quartz" does not include natural csands; and
- (f) "potter's shop" includes all places where pottery is formed by pressing or by any other

process and all places where shaping, fettling or other treatment of pottery articles prior to placing for the biscuit fire is carried on.

3. Efficient exhaust draught:-

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

- (a) all processes involving the manipulation or use of dry and unfretted lead compound;
- (b) fettling operation of any kind, whether on green ware or biscuit, provided that this shall not apply to the wet fettling, and to the occasional finishing of pottery articles without the aid of mechanical power;
- (c) shifting of clay dust or any other material of making tiles or other articles by pressure, except where:-
 - (i) this is done in a machine so enclosed as to effectually prevent the escape of dust; or
 - (ii) the material to be shifted is so damp that no dust can be given off;
- (d) pressing of tiles, from clay dust, an exhaust opening being connected with each press, and pressing from clay dust of articles other than tiles unless the material is so damp that no dust is given off;
- (e) fettling of tiles made from clay dust by pressure, except where the fettling is done wholly on, or with, damp material and fettling of other articles made from clay dust, unless the material is so damp that no dust is given off;
- (f) process of loading an unloading of saggars where handling and manipulation of ground and powdered flint, quartz, alumina or other materials are involved;
- (g) brushing of earthenware biscuit, unless the process is carried on in a room provided with efficient general mechanical ventilation or other ventilation which is certified by the Inspector of Factories as adequate having regard to all the circumstances of the case.
- (h) fettling of biscuit ware which has been fired in powdered flint or quartz except where this is done in machines so enclosed as to effectually prevent the escape of dust;
- (i) Where cleaning after the application of glaze by dipping or other process;
- (j) crushing and dry grinding of materials for pottery bodies, and saggars, unless carried on in machines so enclosed as to effectively prevent the escape of dust or is so damp that no dust can be given off;
- (k) sieving or manipulation of powdered flint, quartz clay greg or mixture of those materials unless it is so damp that no dust can be given off;
- (l) grinding of tile on a power-driven wheel unless an efficient water spray is used on that wheel;
- (m) lifting and conveying of materials by elevators and conveyors unless are effectively enclosed and so arranged as to prevent escape of dust into the air in or near to any place in which persons are employed;
- (n) preparation or weighting out of flow material, lawning of dry colours, colour dusting and colour blowing;

- (o) mould making unless the bins or similar receptacles used for holding plaster of parts are provided with suitable covers; and
- (p) manipulation of claimed material unless material has been made and remain so wet that no dust is given off.

4. Separation of Processes:-

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

- (a) Crushing and dry grinding or sieving of materials, fetting, pressing of tiles, drying of clay and green ware, loading and unloading of saggars: and
- (b) all processes involving the use of dry load compound.

5. Prohibition on use of glaze:-

No glaze which is not a lead less glaze or a low solubility glaze shall be used in a factory in which pottery is manufactured.

6. Prohibition relating to women and young persons:-

No women or young person shall be employed or permitted to work in any of .the operations specified In paragraph 4, or at anyplace where such operations are carried on.

7. Provision of screen to potter's wheel:-

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

8. Control of dust during cleaning:-

- (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.

9. Floor of certain workroom:-

The floor of potter's shops, slip houses dipping, and ware cleaning rooms shall be hard, smooth and impervious and shall be thoroughly cleaned daily by an adult male using a moist method.

10. Protective equipment:-

- (i) The occupier shall provide and maintain suitable overalls and head-coverings for all persons employed in process included under paragraph 3.
- (ii) The occupier shall provide and maintain suitable aprons of a waterproof or similar material, which can be sponged dally, for the use of a dippers, dippers assistants, throwers, jolly workers, caster, mould maker and filter press and pug mill workers.
- (iii) Aprons provided in pursuance of paragraph 10(2) shall be thoroughly cleaned daily by the

wearers by sponging or other wet process. All overalls and head-covering shall be washed, cleaned and mended at least once a week, and this washing cleaning or mending shall be provided for, by the occupier.

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

11. Washing facilities:-

The occupier shall provide and maintain, in a clean state and in good repair for the use of all persons employed in any of the processes specified in paragraph-3.:-

- (a) a wash-place under cover with either -
 - (i) a trough with smooth impervious surface fitted with a wash pipe without plug, and of sufficient length to allow at least 60 centimeters for every five such persons employed at any one time, and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 80 centimeters; or
 - (ii) at least tap or stand-pipe for every five such persons, employed at any one time and having a constant supply of clean water, the tap or stand-pipe being spaced not less than 120-centimeters apart; and
- (b) a sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.

12. Time allowed for washing:-

Before each meal and before the end of the day's work shall be allowed for washing to each person employed in any of the processes mentioned In paragraph 3.

13. Mess room:-

(1) There shall be provided and maintained for use of all persons remaining within the premises during the rest intervals, a suitable mess room providing accommodation of 0.93 square per head and furnished with.

- (a) a sufficient number of tables and chairs or benches with back rest;
- (b) arrangements for washing utensils;
- (c) adequate means for warming food; and
- (d) adequate quantity of drinking water.

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

14. Food, Drinks, etc. prohibited in workrooms:-

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

15. Clockroom etc.:-

There shall be provided and maintained for the use of all persons employed in any of the processes maintained in paragraph 3.: -

- (a) a clockroom for clothing put off during working hours and such accommodation shall be separate from any messroom; and
- (b) separate and suitable arrangements for the storage of protective equipments provided under paragraph 10.

16. Medical examination:-

(1) All persons employed in any process included under paragraph 3 shall be examined by the Certifying Surgeon within 7 days proceeding or following the date of their first employment in such process: thereafter all persons employed in any process included under sub-paragraph 3 (a) and (n) shall be examined by the Certifying surgeon once in every three calendar months and those employed in any process included In sub- paragraph 3(b) to (m) and (o) and (p) of paragraph 3 once in every twelve months by the Certifying Surgeon Records of such examination shall be entered by the Certifying Surgeon in the Health register and certificate of fitness granted to him under paragraph 17.

(2) if at any time the Certifying Surgeon is of opinion that any person employed in any process included in paragraph 3 is no longer fit for employment on the ground that continuance therein would Involve damage to his health, he shall cancel the certificate of fitness granted to that person.

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

17. Certificate of fitness: -

A person medically examined under paragraph 16 and found fit for employment shall be granted, by the 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 it with him at work a taken giving reference to such certificate.

Footnote:

- 1. Ins. by Notfn. dated 15.2.1995.

¹Schedule XXVI

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 casting or, as the case may be. steel casting by castings in moulds made of sand, loam, moulding composition or other mixture of materials or by shell moulding, or by centrifugal casting and any process incidental to such production;
- (b) the production of non-ferrous casting by casting metal in moulds made of sand, loam, metal, moulding, composition or other material or mixture or materials, or by shell moulding, die, casting including pressure die-casting) centrifugal casting or continuous casting and any process incidental to such production, and the melting and casting of

non-ferrous metal for the production of ingots, billets, slabs or other similar products and the stripping thereof;

but shall not apply with respect to: -

- (a) any process with respect to the melting and manufacture of lead and the Electric Accumulators;
- (b) any process for the purpose of a printing works; or
- (c) any smelting process, in which metal is obtained by a reducing operation incidental to such operations; or
- (d) the production of steel in form of ingots; or
- (e) any process in the course of- the manufacture or solder or any process incidental to such manufacture; or
- (f) the melting and casting of lead or any lead-based alloy for the production of Ingots, billets slabs or other similar products or the stripping thereof, or any process incidental to such melting casting or stripping.

2. Definitions:-

For the purpose of this schedule: -

- (a) "approved respirator" means a respirator of a type approved by Chief Inspector of Factories.
- (b) "cupola or furnace" Including a receiver associated therewith;
- (c) "dressing or fetting operator" includes stripping and other removal or adherent sand, cores, runners, risers, flash and other surplus metal from a casting and the production of reasonably clean and smooth surface but does not include (a) the removal of metal from a casting when performed incidentally in connection with the machining or assembling of casting after they have been dressed or fettled or (b) any operation which is a knock-out operation within the meaning of the schedule;
- (d) "foundry" means those parts of a factory in which the production of iron or steel or non-ferrous casting not being the production of pig-iron or the productions of steel in the form of ingots) is carried on by casting in moulds made of sand, loam, moulding, composition or other mixture of materials, or by shall moulding or any Centrifugal casting in metal moulds lined with sand, or die casting including pressure di-casting together with any part of the factory in which any of the following processes are carried on an incidental processes in connection with any production namely, the preparation and mixing of materials used in foundry process, the preparation of moulds and cores knockout operations and dressing or fetting operations;
- (e) "Knock-out operation" .means all methods of removing castings from moulds and the following operations, when done in connection therewith namely stripping coring-out and the removal of runners and risers;
- (f) "pouring aisle" means an aq|sle leading from a main gangway or directly from a cupola or furnace to where metal is poured into moulds.

3. Prohibition of use of certain materials as parting materials:-

(1) A material shall not be used as a parting material, if it is a material containing compounds of silicon calculated as silica to the extent more than 5 percent by weight of the dry material;

Provided that this prohibition shall not prevent the following being used as a parting if the material does not contain an admixture of any other silica.:-

- (a) Zirconium silicate(Zircon)
- (b) Calcined china clay
- (c) Calcined aluminous fire clay
- (d) Sillimanite
- (e) Calcined or fused alumina
- (f) clivine
- (g) Natural sand

(2) Dust or other matter deposited from a fretting or blasting process shall not be used as a parting material or as a constituent in a parting material.

4. Arrangement and storage: -

- (a) For the purpose of promoting safety and clean lines in work rooms the following requirements shall be observed: moulding boxes, loam plates, ladles, patters, 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) Floor of indoor work places in which the processes are carried on, other than parts which are of sand, shall have an even surface of hard material.

(2) No part of the floor of any such indoor 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 workplace in which the processes are carried on and everything affixed to these walls shall be effectively cleaned by a suitable method to a height of not less than 4.2 meters from the floor at least once in every period of 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 more than nine months after the last immediately preceding washing, cleaning or other treatment) shall be maintained.

(2) Effective cleaning by a suitable method shall be carried out at least once every working day of all accessible parts of the floor of every indoor workplace in which the processes are carried on other than parts which are of sand: and the parts which are of sand shall be kept in good order.

7. Manual operation involving molten metal:-

(1) There shall be provided and 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 shall be performed on a floor all parts of which where any person walks while engaged in the operations shall be on the same level:

Provided that, where necessary to enable the operation to be performed without undue risk, nothing in the paragraph shall prevent the occasional or exceptional use of a working space on a different level from the floor, being a space provided with a safe means of access from the floor for any person while engaged in the operation.

8. Gangways and pouring aisles :-

(1) In every workroom to which this paragraph applies constructed, reconstructed or converted for use as such after coming into force of these rules and so, for as reasonably practicable, in every other workroom to which this paragraph applies, sufficient and clear main gangways shall be provided and properly maintained which,:-

- (a) shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;
- (b) shall be kept, so far as reasonably practicable, free from obstruction;
- (c) if not used for carrying molten metal, shall be at least 920 millimeters in width;
- (d) if used for carrying molten metal shall be
 - (i) where truck ladles are used exclusively, at least 600 millimeter wider than the overall width of the ladle;
 - (ii) where hand shanks are carried by not more than two men, at least 920 millimeters in width;
 - (iii) where hand shanks are carried by more than two men, at least 1.2 meters in width, and
 - (iv) where used for simultaneous travel in both directions by men carrying hand shanks, at least 1.8 meters in width.

(2) In workroom (to which this paragraph applies) constructed, reconstructed or converted for use as such after coming into force of these rules, sufficient and clearly defined pouring aisles shall be provided and properly maintained which.:-

- (i) shall have an even surface of hard material and shall, in particular, not be of sand or

have on them more sand than is necessary to avoid risk of flying metal from accidental spillage;

- (ii) shall be kept as far as reasonably practicable free from obstruction;
- (iii) if molten metal is carried in hand ladles or bull ladles by not more than two men per ladle, shall be at least 460 millimeters wide, but where any moulds alongside the aisle are more than 510 millimeters above the floor of the aisle, the aisle shall be not less than 600 millimeters wide;
- (iv) if molten metal is carried in hand-ladles or bull-ladles by more than two men per ladle shall be at least 760 millimeters wide;
- (v) if molten metal is carried in crane, trolley or truck ladles, shall be of width adequate for the safe performance of the work.

(3) Provision of sub-paragraph (1) and (2) shall not apply to workroom or part of a workroom if, by reason of the nature of the work done therein, the floor or that workroom or as the case may be. that part of a workroom has to be of sand.

(4) In this paragraph, "workroom to which this paragraph applies" means a part of a ferrous or non-ferrous foundry in which molten metal is transported or used, and a workroom to which this paragraph applies shall be deemed for the purpose 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 coming into force of these rules.

9. Work near cupolas and furnaces:-

No person shall carry out any work within a distance of 4 meters from a vertical line passing through the delivery end of any spout of a cupola or furnace, being a spout used for delivering molten metal, or within a distance of 2.4 meters from a vertical line passing through the nearest part of any ladle which is in position at the end of such a spout, except, in either case, where it is necessary. For the proper use or maintenance of a cupola or furnace that work should be carried out within that distance or that work is being carried out at such a time and under such conditions that there is no danger to the person carrying it, out from molten metal which is being obtained from the cupola or furnace or is in a ladle in position at the end of the spout.

10. Dust and fumes:-

(1) Open coal, coke or wood fires shall not be used for heating or drying ladles inside a workroom unless adequate measures are taken to prevent, so far as practicable, fumes or other impurities from entering into or remaining in the atmosphere of the workroom.

(2) No open coal, coke or wood fires shall be used for drying moulds except in circumstances in which the use of such fires is unavoidable.

(3) Mould stoves, core stove and annealing furnaces shall be so designed, constructed, maintained and worked as to prevent, so far as practicable, offensive or injurious fumes from entering into any workroom during any period when a person is employed therein.

(4) All knock-out operations shall be carried out.:-

- (a) in a separate part of foundry suitably partitioned off, being a room or part in which, so far as reasonably practicable and suitable local exhaust ventilation and a high standard of general ventilation are provided; or

- (b) in an area of 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 or general ventilation is provided.
- (5) All dressing or fettling operation shall be carried out. -
- (a) in a separate room or in a separate part of the foundry suitably partitioned off: or
 - (b) in an area of the foundry set apart for the purpose;

and shall, so far as reasonably practicable be carried out with effective and suitable local exhaust ventilation or other equally effective means of suppressing dust, operating as near as possible to the point of origin of the dust.

11. Maintenance and examination of exhaust plant:-

- (1) All ventilation plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be properly maintained.
- (2) All ventilation plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be examined and inspected once every week by a responsible person. It shall be thoroughly examined and tested by a competent person at least once in every period of twelve months; and particulars of the results of every such examination and test shall be entered in and approved in Form-26-A which shall be available for inspection by an Inspector. Any defect found on any such examination and test shall be immediately reported in writing by the person carrying out the examination and test to the occupier or manager of the factory.

12. Protective Equipments:-

- (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 too cause damage to the hands by burn, scald or sear, 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 can not be dispelled quickly and effectively by the existing ventilation arrangements.
- (2) No respirator for the purpose of clause 1 (b) has been worn by a person shall be worn by another person if it has not since been thoroughly cleaned and disinfected.
- (3) Persons who for any of their time: -
- (a) work at a spout of or attend to, a cupola or furnace in such circumstances that material there from may come into contact with the body, being material at such a temperature that its contact with the body would cause a burn; or
 - (b) are engaged in, or in assisting: with the pouring or molten metal; or
 - (c) carry by hand or move by manual power any indle or would containing molton metal;
 - (d) are engaged in inocking-out operation involving material at such a temperature that its contact with the body would cause a bum;

shall be provided with suitable footwear and gaiters which if worn by them prevent, so far as reasonably practicable risk or burns to their feet and ankles.

(4) Where appropriate, suitable screens shall be provided for protection against flying material (including splashes of molten metal 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 clearing and maintaining of the protective equipment supplied in pursuance of this paragraph.

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 through with impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimeters for every 10 such persons employed at any one time and having a constant supply of clean water from taps or jets above the through at intervals of not more than 60 centimeters; or

(ii) at least one tap or stand pipe for every 10 such persons employed at any time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 1.2 meters apart; and

(b) not less than one half of the total number of washing places provided under clause (a) shall be in the form of bath-rooms.

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

(2) The facilities provided for the purposes of sub-paragraph (1) shall be placed in charge of a responsible person or persons and maintained in a clean and orderly condition.

14. Disposed of waste:-

Appropriate measures shall be taken for the disposal of all waste products from shell moulding (including waste burnt-sand) as soon as reasonably practicable after the castings have been knocked-out.

15. Disposal of dress and skimming:-

Dress and skimmings removed from mould or taken from a furnace shall be placed forthwith in suitable receptacles.

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 examination and tests: -

- (1) The occupier of every factory to which this schedule applies shall: -
 - (a) employ a qualified medical practitioner for medical surveillance of the workers employed therein whose employment shall be subject to the approval of the Chief Inspector of Factories; 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.

18. Medical examination by Certifying Surgeon:-

- (1) Every worker employed in a foundry shall be examined by Certifying surgeon within 15 days of his 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 consider appropriate include all the tests as specified in sub- paragraph (1) except chest X-ray which shall be done once in 3 years.
- (3) The Certifying Surgeon after examining a worker, shall issue a certificate of Fitness in form 27-A. 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 surgeon in a health in Form-20.
- (4) The Certificate of fitness and the health register shall be kept readily available for inspection by the Inspector.
- (5) If any time Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said processes on the ground that continuance there in would involve special danger to the health of the worker, he shall make a record of his findings in the said certificate and the health register. The entry of his findings in those documents shall also include the period for which he considers that said person is unfit for work in the said processes.
- (6) A person who has been found unfit to work as provided 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.

Footnote:

1. Subs, by Notfn. dated 15.2.1995.

¹[Schedule XXVII

Handling and Processing Of Cotton

1. Application:-

This Schedule shall apply to all factories or part of factories in which any of the following processes are carried on.

- (a) Opening of cotton bale.
- (b) Carding.
- (c) Combing of cotton.
- (d) Spinning of cotton yarn.
- (e) Cleaning of waste cotton.

2. Definition:-

For the purpose of this Schedule, "Efficient exhaust draught" means localized ventilation by mechanical means, for the removal of cotton dust so to prevent dust from escaping into the air of any place in which work is carried on.

Explanation: - No draught shall be deemed to be efficient which fails to control dust produced at the source.

3. Exhaust Draught Examination and Test:-

(1) An efficient exhaust draught shall be provided and maintained by the occupier for the following processes and machines to trap cotton dust or fluff at the source of origin and those in air :-

- (a) bale breaking and mixing of cotton;
- (b) blow room machinery, cards, combing, spinning, winding, machines;
- (c) machines used for processing, waste cotton;
- (d) any other process in which cotton dust is given off into the work environment.

(2) All equipment for extraction of cotton dust or fluff shall be examined and tested by competent person at least once in every six months and any defects disclosed by such examination and tests, shall be rectified. A register about such examination and test shall be maintained by the Occupier.

4. Protective appliance:-

The occupier shall make arrangement for: -

- (a) supply of a suitable personal protective appliance to all workers likely to exposed to cotton fluff or dust;
- (b) supply of these appliances on individual basis;
- (c) maintaining these appliances in working condition by cleaning and replenishment;
- (d) storage of these appliance in hygienic condition;
- (e) education of workers to use these appliances; and
- (f) proper supervision to ensure the workers are using these appliance in working process.

5. Medical Examination:-

(1) The occupier shall arrange for medical examination of workers by a qualified medical practitioner having adequate experience in treatment of person affected by lung ailments at least once in a period of 6 months. Such medical examination shall include lung function test, immunoglobulin test and any other test or tests which may be found necessary to detect the cases of above referred disease.

(2) The occupier shall keep a continuous medical surveillance so that susceptible workers may be detected and transferred out of the exposure before irreversible damage cause to the health of the workers.

6. Environment Monitoring:-

The occupier of the factory shall ensure that,

- (a) cotton dust in ambient air of the workroom or any other place where cotton is processed or handled shall not exceed concentration 0.2 mg/m³,
- (b) environment in those areas shall be regularly monitored and results shall be made available to the Inspector on demand.

7. Control Measures:-

Without prejudice to the other methods as stated above for prevention of above referred disease, the occupier shall adopt such other control measures like adoption of vacuum stripping of cards instead of brush stripping cleaning of the workroom by vacuum cleaners instead of brooms or any other measures, as the Inspector may suggest at any time.

8. House Keeping:-

A high standard of house keeping shall be provided and maintained by the occupier.

9. Exemption:-

If in respect of any factory, the Chief Inspector is satisfied that owing to exceptional circumstances all or any of the provisions of this schedule are not necessary for the protection of the workers of the factory, the Chief Inspector may certify in writing (which at his discretion revoke at any time) exempt such factory from all or any of such provisions of this schedule subject to such conditions, in any, as he may specify therein.

Footnote:

- 1. Ins. by notfn. No. GHR/2006/10/FAC/203/3879/M(3) dated 19.1.2006

¹103. 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 annexed hereto takes place in a factory, the manager of the factory shall forthwith send a notice thereof by telephone, special messenger to telegram to the Inspector and the Chief Inspector.

(2) When any accident or any dangerous occurrence specified in the schedule annexed hereto, 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 nearest relatives of the injured or deceased person.

(3) Any notice given as required under sub-rule (1) and (2) shall be confirmed by the manager of the factory to the authorities mentioned in those sub- rules within 12 hours of the accident or the dangerous occurrence by sending them a written report in Form No. 21 in the case of an accident or dangerous occurrence causing death and bodily injury to any person and in Form No. 21A 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 No. 21 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 sub-rules (1), (2), (3) or (4) as the case may be, have sent, the messenger of the factory shall forthwith send a notice thereof by telephone, special manager or telegram to the authorities and persons mentioned in sub-rules (1) and (2) and also have his 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 No. 21 within 24 hours immediately following the hours when the actual total period of disability from working resulting from the accident or the dangerous occurrence becomes 48 hours.

Footnote:

1. Subs. by Notfn. dt. 15.2.1995

Schedule

The following classes of dangerous occurrence, whether or not they are attended by personal injury or disablement:

1. Bursting of a plant used for containing of supplying steam under pressure greater than atmospheric pressure.
2. 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.
3. 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, where a cotton opener is in use.
4. Explosion of a receiver or, container used for the storage at a pressure greater than atmospheric pressure of any gas or gasses including air) or any liquid or solid resulting from the compression of gas.
5. Collapse or subsidence of any floor, gallery, roof, bridge, tunnel, chimney, wall, building or any structure.

Rule Prescribed Under Section 89

104. Notice of poisoning or disease. :-

A notice in Form No. 22 should be sent forth with both to the Chief Inspector, Certifying Surgeon by the manager of a factory in which there occurs a case of lead, phosphorous, mercury, manganese, arsenic, carbon bisulphide 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 anaemia toxic jaundice primary ophthalmomatous cancer of the skin or pathological manifestations due to radium or other radio- active substances or X-rays.

Chapter X

Supplemental

Rule Prescribed Under Section 107

105. 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-fee stamps in accordance with Article 11 of Schedule II to the Court-fees Act, 1870, and shall be accompanied by a copy of the order appealed against.

(2) Appointment of assessors.:- On receipt of the memorandum of appeal, the appellate authority shall, if it thinks fit or if the appellant has requested that the appeal should be heard with the aid of assessors, call upon the body declared under sub-rule (3) to be 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 the
- (c) appellant desires should appoint such assessor: and if the appellant is not a member of any of the aforesaid bodies or if does not state in the memorandum which of such bodies he desires, should appoint the assessor, be the body which the appellant authority considers as the best fitted to represent the industry concerned.

¹[1. Mill owners Association. Ahmedabad,

2. Gujarat Chamber of Commerce, Ahmedabad,

3. Federation of Gujarat and Industries, Baroda.

4. Saurashtra Chamber of Commerce. Bhavnagar,

5. Other Association of employers in the Industry concerned if any.]

(4) Remuneration of assessors. :- An assessor appointed in accordance with the provisions of sub-rule (2) and (3) shall receive for the hearing of the appeal; a fee to 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 expenses shall be paid to the assessor by Government but where assessors have been appointed at the request of the appellate authority and the appeal has been decided wholly and partly against him the appellate authority may direct that the fees and travelling expenses of the assessor shall be paid in whole or in part by the appellant.

Footnote:

1. Subs, by Notfn. dt. 21.1.1964.

Rule Prescribed Under Section 108

106. Display of notices. :-

The abstract of the Act and of the rules required to be displayed in every factory shall be in Form No. 23.

Rules Prescribed Under Section 110

107. Returns. :-

The manager of every factory shall furnish to the Inspector or other officer appointed by the State Government in this behalf the following returns, namely :-

¹(1) Annual return. :-

On or before the ²¹st February of each year, an annual return in duplicate in Form No. 24 relating to the following matters :-

(a) average number of workers employed daily and normal hours worked per week;

(b) leave with wages;

³[(ba) number of discharged or dismissed workers;]

(bb) wages in lieu' of leave;

(c) compensatory holidays;

(d) canteens in the case of factories wherein more than 250 workers are ordinarily employed;

(e) creches in the case of factories wherein more than 50 women workers are ordinarily employed;

(f) shelters, rest rooms and lunch rooms in the case of factories wherein more than 150 workers are ordinarily employed.

(2) Half Yearly return.:-

On or before the 15th July and 15th January of each year, a half yearly return in duplicate in form No. 25.

⁴(3) Annual return of holidays. :-

Before the end of each year, a return giving notice of all the days on which it is intended to close the factory during the next ensuing year. If in any year a factory is newly started or restarted after a closure during the previous year, such return shall be submitted before the date as such starting or restarting for the remaining period of the year:

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

Provided further that the annual return of holidays shall be dispensed with in case of all factories :

- (a) which regularly observe Sundays as holidays; or
- (b) which regularly observe a fixed day in the week as a holiday; or
- (c) which observe holidays according to list approved by the Chief Inspector' where the manager of any factory makes any departure from such a holiday or list of holidays as aforesaid, prior intimation shall be given to the Chief Inspector.

⁵[(3) to (8) xxx].

Footnote:

- 1. Subs. by Notfn. d. 23-2-1957.
- 2. Subs. by Notfn. d. 11-10-1958.
- 3. Ins. by Notfn. d. 22-7-1959
- 4. Renumbered by Notfn. d. 23-2-1957.
- 5. Sub-rules (3) to (8) deleted by Notfn. dt. 23-2-1957.

Rules Prescribed Under Section 109

108. Service of notice. :-

The despatch by post under registered cover of any notice or order shall be deemed such sufficient service on the occupier, owner or manager of a factory of such notice or order.

Rules 109 to 112 Prescribed Under Section 112

109. 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 Inspection, shall be complied forthwith if the information is available in the factory or, if made in writing, shall be complied with within seven days of receipt thereof.

110. 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 each worker, (b) the nature of his work and (c) the daily attendance of the worker.

(2) The muster roll shall be written up afresh each month and shall be preserved for a period of 3 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 Forms Nos. 15 and 17 respectively, or the particulars required under sub-rule (1) are noted in any other register, and such registers are preserved for a period of 3 years from the date of last entry in them, a separate muster-roll required under sub-rule (1) need not be maintained.

¹[110-A. Identity Cards. :-

(1) The Manager of every factory shall provide to each worker an identity" card with photograph, free of cost, in Form No. 36 and shall enter the serial number of such card against the name of such worker in the register of adult workers maintained by him under section 62 read with rule 88 or the register of child workers under section 73 read with rule 93, as the case may be :

Provided that it shall not be necessary to furnish such identity card to any worker to whom an identity card containing similar particulars and information is furnished under any other law applicable to him.

(2) No worker shall be allowed or required to work in a factory unless he carries while he is at work an identity card, provided under sub-rule (1).

(3) Every worker shall, on demand by an Inspector appointed for the purposes of the Act produce the identity card provided to him under sub-rule (1).

(4) If any worker loses his identity card a duplicate card shall be furnished to him by the Manager immediately on production of a recent passport size photograph by the worker for affixing on it, free of charge.]

Footnote:

1. R. 110-A ins. by Notfn. d. 15-10-1977.

111. (1) 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. 29 showing the -

- (a) Name of injured person (if any),
- (b) Date of accident or dangerous occurrence,
- (c) Date of report on Form No. 21 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.

¹[(2) The manager of every factory shall furnish to the Inspector annually on or before the 15th February a copy of the entries in Form No. 29 relating to the year immediately preceding the 1st January.]

Footnote:

1. Renumbered and added by Notfn.. d.25-3-1952.

112. Maintenance of Inspection Book:-

(i) The manager of every factory shall maintain a bound Inspection Book in Form No. 31 of the size 13.1/2" x 8.1/2" and shall produce it when so required by the Inspector or Certifying Surgeon.

(ii) The Inspection Book shall contain at least 180 pages, every third page thereof shall be consecutively numbered and the other two unnumbered pages between each two consecutively numbered page, shall have a vertical perforated straight line on the margin side at a margin of 1".

(iii) In case the Inspection Book containing remarks passed by the Inspector or Certifying Surgeon, is lost, the manager of the factory shall forthwith report in writing the loss of the Inspection Book to the Inspector in-charge of the areas and immediately maintain a new Inspection Book.

The Manager shall obtain as early as possible copies of all available remarks from the Factory Inspection Office concerned, on payment of necessary typing charges.

113. Information regarding closure of factories:-

(1) ¹The occupier and the Manager shall be jointly and severally responsible for sending information in duplicate to the Inspector of any intended closure of the factory or any shift, section or department thereof, immediately after it is decided to do so and before the closure takes place stating :-

(a) the date of intended closure:

(b) the reasons for closure;

(c) the number of workers on the muster-roll of the factory on the day the information is sent:

(d) the number of workers likely to be affected by the closure; and

(e) the probable period of closure;

Provided that in the case of any factory in respect of which Standing Orders settled or certified under the Bombay Industrial Relations Act, 1946; or the Industrial Employment (Standing Orders) Act, 1946 as the case may be, provide for the display on the notice boards of the factory a notice of the proposed closure of the factory or any shift, section or department thereof such information to the Inspector shall be given on the date on which such notice is displayed.:

Provided further that it shall not be-necessary for the occupier or manager to send information of intended closure if the closures is rendered inevitable on account of fire, break down of machinery, stoppage of power or water supply or any other cause beyond his control.

Footnote:

1. Subs. by Notfn. d. 21-1-1964.

(2) The occupier and the manager" shall be jointly or severally responsible for sending information in duplicate to the Inspector as soon as the factory or any shift, section or department thereof, is

actually closed in the following form namely :-

Name of factory and full address	Name of Industry	Date of closure*	Reasons for closure
(1)	(2)	(3)	(4)

Nature of closure whether entire or partial, if partial the shift, section or department closed	Number of workers on the muster roll of factory at the time of closure	Number of workers affected by the closure
(1)	(2)	(3)

(3) The occupier and the manager shall be jointly sending also information in duplicate to the Inspector as shift, section or department thereof is re-opened in the or severalh responsible for soon as the factory or any following form, namely :-

Name of factory and full address	Name of Industry	Date of closure*	Reasons for closure
(1)	(2)	(3)	(4)

Number of workers on the muster roll of factory at the time of closure re-opening	Number of workers re-employed (ii) newly employed	Nature of closure whether entire or partial, if partial the shift, section or department closed
(1)	(2)	(3)

* Class of Industry whether (1) cotton textile, (2) Silk Textile, (3) Woolen Textile, (4) Hosiery, (5) Engineering or (6) Miscellaneous should be stated.

Explanation 1. :- For the purposes of this rule, "closure" means the closing of a factory, or any shift, section or department thereof or the total or partial suspension of work (other than work of a temporary nature) by the occupier or pianager of the factory or total or partial refusal by the occupier

or manager of the factory to continue to employ persons employed by him where such refusal does not amount to the discharge, dismissal or suspension of a worker or workers by way of punishment.

Explanation 2. :- This rule shall not apply in the case of a closure of any section or department of a factory if such closure does not affect the total number of workers employed in the factory.

[114. Repeal and saving.:-

The Saurashtra Factories Rules. 1949, and the Kutch Factories Rules, 1951, are hereby repealed :

Provided that anything done or any action taken under the provisions of the rules so repealed shall, in so far as it is not inconsistent with the provisions of these rules, be deemed to have been done or taken under the corresponding provisions of these rules and shall continue in force until superseded by any thing done or any action taken under the Act of these Rules.]

Form No. 1

(Prescribed Under Rule 3)

Application for Permission to Construct, Extend or Take into Use Any Building as a Factory

1 Application for:-

- a. Constructing new building
- b. extending an existing building
- c. taking into use any building as a factory
(Tick one or more as applicable)

2. Applicant's name and address:-

(In block letters)

3. Full name and postal address of factory:-

- a. Name
- b. Address
(Town or village/Distt./Pin code No.)

4. Please indicate also following details:-

- a. Nearest Police station-distance
- b. Nearest Railway Station-or steamer Ghat
- c. Nearest Public Hospital

5. a. Whether already registered as factory:-

Yes/No

b. If yes, 1. Registration No.

2. Licence No.

3. Date of renewal of Licence.

- c. Does it fall in hazardous category under section 2(cb) Yes/No
- d. If so, has site been approved u/s 41 A? Yes/No
- e. If so, date of approval.

6. Particulars of plant to be installed: -
*To be enclosed only if the site has not been appraised in terms of Section 41 A.

7. Enclosures: -

- a. Flow chart of the manufacturing process Yes/No
- b. Brief description of the process in its various stages Yes/No
- c. Plan, in duplicate drawn to scale showing: -
- i. the site of the factory and immediate surroundings including adjacent buildings and other structures, roads, drains, etc. Yes/No
- ii. the plan, elevation and necessary cross-sections of the various building 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. Yes/No
- d. Such other particulars as required by the Chief Inspector at the time of submission of the application.

Signature of applicant.

Name of applicant

(In block letters.)

Date :

Telephone number

Form No. I-A

(Prescribed Under Rule 3-C)

Certificate of Stability

1. Name of the Factory process
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 premises, the plans of which have been approved by the Chief Inspector by his letter No.....dated.....and examined the various parts including the foundations with special reference to the machinery, plant etc. that have been installed. I am of the opinion that all the works of engineering construction in the premises is/are structurally sound and that its/their stability will not be endangered by its/their use as a factory/part of a factory for the manufacture of.....for which the machinery plant etc. installed are intended.

Signature

Qualification

Address

Date

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

Form No. I-B

(Prescribed Under Rule 68-1)

Format of Application to the Site Appraisal Committee

1. Name and address of the applicant
2. Site ownership data
 - 2.1 Revenue details of site such as Survey No. Plot No. etc.
 - 2.2 Whether the site is classified as forest and if so, whether approval of the Central Government under section 5 of the Indian Forest Act, 1927 has been taken.
 - 2.3 Whether the proposed site attracts the provision of section 3(2)(v) of the Environment (Protection) Act, 1989, E.P. Act, 1989 and If so, the nature of the restrictions.
 - 2.4 Local authority under whose jurisdiction the site is located.
3. Site plan.
 - 3.1 Site plan with clear Identification of boundaries and total area proposed to be occupied and showing the following details near by the proposed site.
 - a. Historical monument if any, in the vicinity.
 - b. Names of neighboring manufacturing units and human habitate. educational and training institutions, petrol installations, storage of liquid Petroleum Gas (L.P.G.) 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 station and their distances.
- e. High tension electrical transmission lines, pipe-lines for water, oil, gas or sewage, railway lines, roads, stations, jetties and other similar installations.
- 3.2 Details of soil conditions and depth at which hard strata obtained.
- 3.3 Counter map of area showing nearby hillocks and difference in levels.
- 3.4 Plot plan of the factory showing the entry and exit points, roads within, water drains, etc.
4. Project Report;
 - 4.1 A summary of the salient features of the project.
 - 4.2 Status of the organisation (Government, Semi-Government, Public or private etc.)
 - 4.3 Maximum number of persons likely to be working in the factory.
 - 4.4 Maximum amount of power and water requirements and source of their supply.
 - 4.5 Block diagram of the building and installation, in the proposed supply.
 - 4.6 Details of housing colony, hospitals, schools and other infrastructural facilities proposed.
5. Organisation structure of the proposed manufacturing unit/factory.
 - 5.1 Organisation diagrams of
 - proposed enterprise in general
 - Health, safety and environment protection departments and their linkage to operation and technical departments.
 - 5.2 Proposed Health and Safety Policy.
 - 5.3 Area allocated for treatment of washes and affluent.
 - 5.4 Percentage outlay on safety, health and environment protection measures.
6. Meteorological data relating to the site :
 - 6.1 Average minimum and maximum of
 - Temperature
 - Humidity
 - Wind velocities during the previous ten years.
 - 6.2 Seasonal variations of wind direction Highest water-level reached during the floods in the area recorded so far.
 - 6.3 Lightning and adimic data of the area

7. Communication Links
 - 7.1 Availability of telephone/telex-wireless and other communication facilities for outside communication.
 - 7.2 Internal communication facilities proposed.
8. Manufacturing process information.
 - 8.1 Process flow diagram.
 - 8.2 Brief Write up on process and technology.
 - 8.3 Critical process parameters such as pressure build up temperature rise and run away reactions.
 - 8.4 Other external effects critical to be having safety implication, such as ingress of moisture of water, contact with incompatible substances, sudden power failure Highlights of the build-in safety/pollution control devices or measures/ incorporated in the manufacturing technology.
9. Information of Hazardous Materials.
 - 9.1 Raw materials intermediates, production and by products and their quantities (Enclose Material Safety Data Sheet to expect of each hazardous substance.)
 - 9.2 Main and intermediate storages proposed for raw material / intermediates/ products/by-products (maximum quantities to be stored at any time)
 - 9.3 Transportation methods to be used for materials inflow, their quantities and likely routes to be followed.
 - 9.4 Safety measures proposed for:
 - Handling of materials;
 - internal and external transportation and
 - disposal (packing and forwarding of finished products)
10. Information on Disposal/Disposal of wastes and pollutants
 - 10.1 Major pollutants (gas, liquid, solid) their characteristics and quantities (average and at peak loads)
 - 10.2 Quality and quantity of solid, wastes generated, method of their treatment and disposal.
 - 10.3 Air, water and soil pollution problems anticipated and the proposed measure to control the same, including treatment and disposal of effluents.
11. Process Hazards Information
 - 11.1 Enclose a copy of report on environmental impact assessment.
 - 11.2 Enclose a copy of the report on risk assessment study.

- 11.3 Published (open or classified) reports, if any, on accident situations/occupational health hazards or similar plants elsewhere (within or outside the country)
- 12. Information of proposed safety and occupational health measures:
 - 12.1 Details of fire fighting facilities and minimum quantity of water, Co2 and or other fire fighting measures needed to meet the emergencies.
 - 12.2 Details of in-house medical facilities proposed.
- 13. Information on Emergency preparedness.
 - 13.1 Proposed arrangements. If any, for mutual aid scheme with the group of neighbouring factories.
- 14. Any other relevant information

I certify that the information furnished above is correct to the best of my knowledge and nothing of importance has been concealed while furnishing it.

Name and signature of the applicant

Form No. 2

(Prescribed Under Rule 4)

Application For Registration And Grant Or Amendment Of Licence And Notice Of Occupation

(To Be Submitted In Triplicate)

1. Application for:-

- a. Registration, grant of licence and notice of occupation Yes/No
- b. Amendment of licence Yes/No

2. a. Applicant's name:-

- b. i. Whether factory already registered Yes/No
- ii. If yes, registration No.
- iii. licence No.

3. Full name and postal address of that factory:-

- a. name of the factory
- b. Address :
(Town/village/district/Pin code no.)

4. Please Indicate following details also :-

- a. Nearest Police Station-Distance -

- b. Nearest Railway station-distance -
- c. Nearest Public Hospital-distance -
- 5. Full name and residential address of the person who shall be the manager of the factory for the purpose of the Act.
- 6. Full name and residential address of the occupier and his designation.
e.g. Director, Partner. Proprietor or Any other (specify)
- 7. Full name and address of the owner of the premises building (Including the precincts there of) referred to in section 93.
- 8. Please furnish reference number(s) and date(s) of approval(s) of the plans site and building and for disposal of trade waste and effluents by the concerned authorities.

Authority Details

- i. State Govt.
- ii. Local Authority
- iii. Chief Inspector of Factories
- iv. Pollution Control Board
- v. Other concerned authority (specify)

- 9. a. Nature of Manufacture processes to be carried out in the factory List of Processes
- b. in case of application for amendment, indicate manufacturing processes carried out previously List of Processes

- 10. Name and quantities of raw materials used, intermediate products and principal finished products during the last twelve months (in case of factories already in existence). Name Quantity
(Vol./
Wt/No.)

- 11. Number of workers employed In the Factory:- Employed Proposed
in the last to be
12 months employed
in next 12 months

- a. Maximum number

- b. number ordinarily employed
- 12. Nature and total amount of power (In H.P.)
 - a. Installed
 - b. Proposed to be installed.

13. Fees paid (details) :

Rs..... in figure
in words
 vide Treasury challan No.....
 date.....drawn on.....

Date:

1. Signature of the Manager

Date:

2. Signature of the Occupier

Notes:-

1. This form should be completed in ink in block letters or typed.
2. Strike off whichever is not applicable.
3. If power is not used at the time of filling up this form, but introduced later, the fact should be communicated to the Chief Inspector of Factories immediately.
4. The term Ordinarily employed would mean the total number of workers working in all the shifts which shall be over 50% of the working days in the factory.

Form No. 3

(Prescribed Under Rule 4 And 7)

Application for Renewal of Licence

Registration number
 Licence number
 NIC Code number
 (As given in the licence)

1. Full name of the factory
2. Address:
3. Full address to which communication shall be carried (where the factory address serves the purpose of communication also this information need not be given).
4. A flow chart of the manufacturing process supplemented by a brief description of the process in its various stages, list of the raw materials used, intermediate products, including mission of toxic, gasses etc. finished products, their quantities, methods of storage and handling, loading and transport and details of the arrangement for the disposal of trade waste and effluents, control or eliminate them (to be enclosed).

5. Maximum number of workers to be employed on any day during the year.
6. Installed power in horse power.
7. The period (not exceeding two years) for which licence or renewal of licence is applied for:
8. Name and residential address of occupier;
9. Name and residential address of manager
10. Amount of fee (Rupees.....) paid vide treasury challan on.....or by book adjustment vide order No.....dated.....

Signature of occupier
Name (in block letters)
Telephone number.

Date:

Signature of manager
Name (in block letters)
Telephone number.

Form No. 3-A
(Prescribed Under Rule 12a)
Notice of Change of Manager

Name of factory

Registration number

Postal Address of factory
(Town/Village Pin code number)

Licence number

1. (a) Name of the outgoing manager
(b) Date of relinquishing charge of outgoing manager.
2. (a) Name of the new manager
(b) Residential address
(c) Telephone number
3. Date of appointment of the New manager.
4. Signature of the new manager

Signature of occupier
Name (in block letters)
Telephone number.

Date :

"Directorate Industrial Safety & Health

(Gujarat State)

¹[Form No. 4

(Prescribed under Rule 5)

Licence to Work a Factory

Registration number

Licence number

FIN

D.A

Licence is hereby granted to.....
for the premises known as.....situated
at.....for use as a factory within the
limits specified in the Plan approved by the Director/Joint Director, Industrial Safety and Health,
vide No.....Date.....subject to provisions of the Factories Act, 1948 and
the Rules made there under,

The License is issued for :

- * Maximum Number of workers to be employed on any day during the year -.
- * Maximum installed power in B.H.P on any day during the year..

The License is valid upto 31st December.

Fees paid Rs

Fees due Rs

Excess Rs

Place:

Date: Official Seal

Director/Joint Director
Industrial Safety & Health Gujarat
State.

Footnote:

1. Substituted by Noti. No. KHR-07-08-FAC-2007-980-M(3) dt. 16-10-07-G.G.G-Exty. Pt IV-B No. 316 dt 17-10-07 P-316

Form No. 4-A

[Prescribed under Rule 2(A)]

Form of Certificate of Competency Issued To A Person or an Institution in Pursuance to Rule 2(A) Made Under Section 2(Ca) Read With Section 6 And 112/Sec. 28/Sec. 29/ Sec. 4 I/Sec. 87 (Ventilating System)

I.....in exercise of the powers
conferred on me under Section 2(ca) of the Factories Act and the rules made there under, hereby

Recognise.....(Name of the Institution) or Shri
employed in.....

(Name of the person)

(Name of the organisation) to be

a competent person for the organisation, purpose of carrying out tests, examinations, inspection and certification for such buildings/dangerous machinery/lift and hoists/lifting machines and lifting tackles/pressure plants/ confined space/ventilation system and such other process used in a factory located in Gujarat State under section.....and the rules made there under.

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

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

- (i) Tests, examinations and inspections shall be carried out in accordance with the provisions of the Act and the rules made there under;
- (ii) Tests, examinations and inspections shall be carried out under the 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 declared competent 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 qualification of the persons authorised by it to carry out tests, examination and inspections.

(v)

(vi)

Station:

Date:

Official Seal

Signature of the
Chief inspector

Note.:- A separate certificate should be issued under each relevant section. A person or an institution may be recognised competent for the purpose of more than one section of the Act.

*Strike out the words not applicable.

Form No. 5

(Prescribed under Rule 15)

Certificate of Fitness for Young

- 1. Serial Number
- 2. Name of person examined
- 3. Father's Name

Space for
passport size
photograph of
the young
person

4. Sex
5. Residence
6. Date of birth, if available.
7. Referred by: —
 - (a) Name and address of the factory:
 - (b) Name of the manager:
8. Manufacturing process in which:
young person is proposed to be
employed.

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

Physical disability, if any: -

Reason for refusal/revocation of certificate

Signature or left hand thumb
impression of the person
examined

Signature of Certifying Surgeon

Date:

Name (In block letters)

- Notes:-**
1. To be issued by the Certifying Surgeon and a copy to be retained for 2 years.
 2. As per the proviso to sub-section (2) of section 69, Certifying Surgeon issuing this certificate should have personal knowledge of the place where the young person proposes to work and of the manufacturing process in which he shall be employed.
 3. As per section 69(3) of the Act this certificate is valid for one year from the date of issue.
 4. In case of any physical disability, the exact details thereof should be clearly stated.
 5. *Please delete which is not applicable.
 6. Young person means a child (who has completed 14 years but not completed 15 years) or an adolescent (who has completed 15 years and not completed 18 years of age).

Form No. 6

(Prescribed Under Rule 23)

Humidity Register

Department.....
 Hygrometer

Distinctive mark of number.....
 Position in department.....

Year.....

Month.....

Reading of hygrometer								
Date	Between 7 and 9 a.m.		Between 11 a.m. and 2 p.m (but not in the rest interval)		Between 4 and 5.30 p.m.		Re- marks	Signature of The person Taking the reading
	Dry bulb	Wet bulb	Dry bulb	Wet bulb	Dry bulb	Wet bulb		
1	2	3	4	5	6	7	8	9
1st								
2nd								
3rd								
4th								
5th								
6th								
7th								
to								
31st								

Form No. 7

(Prescribed Under Rule 17)

Record of Lime Washing, Painting Etc.

Name and number of room and its location in the factory	Part of the room treated	Treatment whether lime washed, Colour washed painted, varnished or oiled	Date of treatment	Remarks
1	2	3	4	5

Date:

Signature of Manager
 Name (in block letters)
 Address and telephone Number.

Form No. 8

(Prescribed under paragraph 5(1)(c) of Schedule VI to Rule 54 and Rule 55

Register of Worker Employed For Work On or Near Moving Machinery

1. Name of worker :
2. Serial Number as in the register of adult workers :
3. Father's name :
4. Date of birth and age :
5. Nature of work :
6. Qualifications, if any or period of service on similar work :
7. Date when tight fitting clothing was provided :
8. Remarks

I certify that the above mentioned worker whose signature or left hand thumb impression is given below is a properly trained male adult worker who is competent to mount or shift belts, lubricate and do other adjusting operations on the machinery installed in my factory while they are in motion. Signature or left hand thumb impression of worker

Date:

Signature of Manager.
Name (In block letters)

Form No. 9

(Prescribed Under Rule 55)

Report of Examination of Hoists and Lifts

Registration
Number Licence Number
NIC Code Number
(As given in the licence)

1. Occupier (or owner) of premises :
2. Address :
3. (a) Type of hoist or lift and identification number or description :
- (b) Date of construction or reconstruction (if ascertainable)
4. Are all parts of the hoist or lift of good mechanical construction, sound material and adequate :

strength (so far as ascertainable)?

5. Are the following parts of the hoist or lift properly maintained and in good working order ? If not, state what defects have been found. :
- (a) Enclosure of hoist way or liftway :
 - (b) Landing gates and cage gate(s) :
 - (c) Interlock and the landing gates and cage gate(s) :
 - (d) Other gate fastenings :
 - (e) Cage and platform and fittings, guides, buffers, interior of the hoistway or liftway :
 - (f) Over-running devices
Suspension ropes or chain
and their attachments. :
 - (h) Safety gear i.e. arrangements for preventing fall of platform or cage brakes. :
 - (i) Brakes :
 - (j) Worm or spur gearing :
 - (k) Other Electrical Equipment :
 - (l) Other parts :
6. What parts (if any) were inaccessible ? :
7. Repairs, renewal or alterations (if any) required and the period within which they should be executed
8. Maximum safe Working load subject to repairs, renewals or alterations (if any) specified in item 7 :
9. Other particulars :

I/we certify that on (date)

I/we have thoroughly examined this hoist or lift and the above is a correct report of the result.

Signature and Name of the
competent person:

Date:

Number and date of the
competency certificate:
Issued by:

¹Form No. 10

(Prescribed Under Rule 60)

Prescribed For Report of Examination of the Lifting Machines, Ropes and Lifting Tackles

Particulars

1. Name of occupier of factory
2. Address of factory
3. Distinguishing number or mark (if any) and description sufficient to identify the lifting machine, chain, rope or the lifting tackle.
4. Date when the lifting machine, chain, rope or lifting tackle was first used in the factory.
5. Date of each examination made under section 29(1)(a)(iii) and by whom it was carried out.
6. Date and number of the certificate relating to any test and examination made under sub-rule (1) of rule 60 together with the name of the person who issued the certificate.
7. Date of annealing or other heat treatment if the chain and lifting tackle carried out under sub-rule (5) of rule 60 and by whom it was carried out.
8. Particulars of any defect found at any such examination or after annealing and affecting the safe working load and the steps taken to remedy such defect.

I / We certify that on..... I / We thoroughly examined the above mentioned lifting machine / chain / rope / lifting tackle and that the above is a correct report of the result.

Signature.....

Counter signature.....

Qualification.....
Address.....
Date.....

If employed by Company or
Association gives name and Address.
Date.....

Footnote:

1. Form subs. by Notfn. dt. 27-10-1958.

Form No. 11

(Prescribed Under Rule 61)

Report of Examination or Test of Pressure Vessel or Plant

Registration Number
Licence Number
¹NIC Code Number
(As given in the licence)

1. Occupier (or owner) of premises :
2. Address :
3. Name, description and distinctive number of pressure vessel or plant. :
4. Name and address of manufacturer :
5. Nature of process (including temperature and pressure parameters). :
6. Particulars of pressure vessel or plant -
 - (a) Date of construction :
 - (b) Thickness of walls :
 - (c) Date on which it was first taken into use :
 - (d) Safe working pressure recommended by the manufacturer :
7. Date of:-
 - (a) Last external examination :
 - (b) Last internal examination :
 - (c) Last hydraulic examination :

- (d) Last ultra-sonic or other non-destructive test :
8. Whether lagging was removed for purposes of examination.
9. Description of examinations carried out and findings :
- (a) External examination (give reason if it is not carried out six monthly) :
 - (b) Internal examination (give reasons if it is not carried out annually) :
 - (c) Hydraulic test (give reasons if this is not carried out at an interval of 2 years or 4 years) :
 - (d) Ultra-sonic or other non-destructive test :
10. Condition of pressure plants
- (a) Vessel :
 - (b) Piping :
11. Conditions of fittings and appliances -
- (a) Pressure gauges :
 - (b) Safety valve . :
 - (c) Stop valve :
 - (d) Reducing valve (give reasons if not necessary) :
 - (e) Additional safety valve (required in case reducing valve is necessary) :
 - (f) Other device (please specify particularly in case of jacketted vessels) :
12. Safe working pressure recommended after examination (specify the allowances made for conditions of working such as heat, corrosion, etc.) :
13. (a) Repairs (if any) required :
- (b) Period within which the repairs should be executed :

- (c) Any other condition which the person making the examination thinks it necessary for securing safe working: :
- 14. Specify reduced working pressure pending repairs. :
- 15. Safe working pressure calculated as per methods given in sub- rule 8 for thin walled pressure vessel or plant. :
- 16. Other observations :

I certify that on (date).....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 and name of competent, person
 Number and date of the competency certificate
 Issued by

Date:

Footnote:

- 1. National Industrial classification (NIC)

Form No. 11A
(Prescribed Under Rule 61-A)
Report of Examination, of Water-Sealed Gasholder

Registration Number
 Licence Number
¹NIC Code Number
 (As given in the licence)

- 1. Occupier (or owner of premises) :
- 2. Address :
- 3. Name, description, distinguishing number or letter and type of gas holder :
- 4. Name and address of the manufacturer :
- 5. (a) Number of lists :

- (b) Maximum capacity in cubic meters :
- (c) Pressure within the gas holder when full of gas :
- 6. Name of gas to be stored in the holder :
- 7. Whether the examination was internal or external :
- 8. Parts of the gas holders examination by electronic or other accurate devices or by cutting sample discs and results of :
- 9. Particulars as to the condition of:-
 - (a) Crown :
 - (b) side sheeting, including, grips and cups :
 - (c) guiding mechanism (Roller-carriages, rollers, pines, guide rails or ropes) :
 - (d) Tank and :
 - (e) Other structure, if any (columns, framing and bracing) :
- 10. Particulars as to the position of the lift at the time of examination. :
- 11. Particulars as to whether the tank and lists were found sufficiently level for safe working and If not the steps taken to remedy the defect. :
- 12. Date of examination and by whom it was carried out :
- 13. (a) Are all fittings and appliances properly maintained and in good condition? :
- (b) Repairs, if any, required and period within which they should be executed. :
- (c) Any other condition which the person making the examination thinks it necessary for securing safe working. :

14. Other observations.

I certify that on (date).....the 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 and name of competent, person
Number and date of the competency certificate
Issued by

Date:

Footnote:

1. National Industrial Classification (NIC)

Form No. 12

(Prescribed Under Rule 84)

Register of Compensatory Holidays

Serial	Number in the register	Name	Group or Relay No.	No. and date of exempting order	Year
1	2	3	4	5	6

Weekly rest days lost due to the exempting order in			
January to March	April to June	July to September	October to December
7	8	9	10

Date of compensatory holidays given in					Remarks
January to March	April to June	July to September	October to December	Lost rest days carried to the next year	
11	12	13	14	15	16

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

Form No. 13

(Prescribed Under Rule 85)

Overtime Register For Exempted Workers

S.No.	Serial number in the register of adult workers	Name of exempted worker	Department	Normal hours of work prescribed	
				Daily	Weekly
1	2	3	4	5	6
Overtime worked			Total over-time hours.	Normal rate of pay	
Date	Additional production for piece rate worker	Hours		Per hour	Per piece
7	8	9	10	11	12
Overtime rate of pay		Earning during the month			Date on
Per hour	Per piece	Normal	Overtime	Total (Col. 15 + col. 16)	
13	14	15	16	17	18

Note:-

1. This register is to be maintained in respect of all workers, exempted under section 64 or 65 from the provisions of section 51 and 54.
2. This register shall be preserved for a period of year after the last entry.
3. In column 9, equivalent hours for additional production of pieces reported in column as converted according to section 59 (3).

Form No. 14

(Prescribed Under Rule 87)

Notice Of Period Of Work For Adult Workers

Name of factory.....
 Address.....
 District.....
 First day of week.....

Registration No.....
 Licence No.....
¹NIC Code No.....
 (As given in the licence)

Periods of work	Men			
	Total number of men employed			
Groups Relays	A 1 2 3	B 1 2 3	C 1 2 3	D 1 2 3
On working days				
From				
To				
From				
To				
On partial working days				
From				
To				
From				
To				

Periods of work	Women			
	Total number of men employed			
Groups Relays	A 1 2 3	B 1 2 3	C 1 2 3	D 1 2 3

On working days				
From				
To				
From				
To				
On partial working days				
From				
To				
From				
To				

Periods of work	Identification	of the Group	Remarks
Groups	Alphabet ABC etc.	Nature of work	
On working days			
From	A		
To			
From	B		
To			
On partial working days			
From	C		
To			
From	D		
To			

Date on which this notice is first exhibited

- * Described the groups and Explain the nature of work against identification letter marked A. B. C. D. E.

Signature of manager

Name (in block letters)

Form No. 15

(Prescribed Under Rule 88)

Register of Adult Workers

S. No.	Name	Date of birth	Sex	Residential Address	Father's Husband's Name made	Date of Appointment
1	2	3	4	5	6	7

Group to which worker belong		Number of Relay if working in shifts	Adolescent if certified as adults		Remarks
Alphabet assigned	Nature of work		Number and date of certificate of fitness	Number under section 68	
8	9	10	11	12	13

Form No. 16

(Prescribed Under Rule 92)

Notice of Periods of Work for Child Workers

Name of factory.....
 Address.....
 District.....
 First day of week.....

Registration No
 Licence No
¹NIC Code No
 (As given in the licence)

Period of work	Children					
	Total number of children employed					
Groups	A		B		C	
Relays	1	2	1	2	1	2

From						
To						

Period of work	Identification	of the Group	Remarks
Groups	Alphabet assigned	Nature of work	
Relays			
From	A		
To	B		
	C		

Date on which this notice is first exhibited

* Describe the groups and explain the nature of work

Signature of Manager
Name (In block letters)
Date:

Footnote:

1. National Industrial Classification (NIC)

Form No. 17
(Prescribed Under Rule 93)
Register of Child Workers

S. No.	Name	Sex	Residential Address	Father's Name	Date of first employment
1	2	3	4	5	6

Number and date of certificate of fitness	Token number under Section 68	Alphabet assigned to Group to which worker belongs	Number of relay, if working in shifts	Remarks
7	8	9	10	11

Form No. 18

(Prescribed Under Rule 94)

Register of Leave with Wages

1. Name :
2. Sex :
3. Father's / Husband's name :
4. Serial number in the Register of adult/child worker :
5. Department :
6. Designation :
7. Date of joining employment :
8. Date of discharge/dismissal/ quitting employment/super-annuation/death while in service :
9. Date of payment in lieu of leave with wages due in such case :
10. Whether leave in accordance with scheme under section 79 (8) was refused :

Calendar year of service (i.e. previous year)	Leave due as on 1st January of the year in column 1	
	Refused	Regular
1	2	3

--	--	--

Leave availed during the year				Leave refused or regular leave mentioned in column 3.
Refused	Refused	Dates		
		From	To	
4	5	6	7	8

Number of working days for computation of leave during the year mentioned in column 1					Regular leave earned for the year mentioned in Col. 1
Days worked	Lay off	Maternity leave upto 12 weeks	Leave with wages enjoyed	Total (9 to 12)	
9	10	11	12	13	14

Balance of leave admissible on 1st January of the year following the year mentioned in Col. 1		Leave period (i.e. Col. 4 + Col 5 in days)
Refused	Regular	
(Col. 2 + 8-4)	(Col. 3 + 14 - 5 -8)	17
15	16	

Details of wages aid	Signature
----------------------	-----------

Normal rates of wages excluding of any overtime as well as bonus but including Dearness Allowance (Rs.)	Cash equivalent of the advantages occurring through the concessional sale of food grains and other articles	Rate of wages for leave with wages paid (Rs.) (Col. 18 + Col. 19)	Total wages paid for the period of leave with wages enjoyed (Rs.) (Col. 17 Col. X Col. 20)	
18	19	20	21	22

Note:-

1. Separate register should be maintained for adult/child.
2. A child will include an adolescent worker who has not been certified fir to work as an adult.
3. A separate page should be maintained in respect of each worker.
4. Leave earned in Col. 14 is calculated on the basis of number of days worked-given in Col- 9.
5. As per section 79(5) figures in column 16 should not exceed 30 days in case of adult and 40 days in case of child workers.
6. Delete which is not required

Form No. 19

(Prescribed Under Rule 95)

Leave Book

[Shall be the same as "Register of Leave with Wages" (Form No. 18) but shall be made out separately for each worker on a thick bound sheet].

Form No. 20

(Prescribed Under Rule 15)

Health Register

(In respect of persons employed in occupation declared to be dangerous operations under section 87).

Name of Certifying Surgeon

(a) Mr.....

From..... To.....

(b) Mr.....

From..... To.....

(c) Mr.....

Fro To.....

Serial No.	Works No.	Name of Workers	Sex	Age (last birth day)	Date of employment of present work	Date of leaving or transfer to other work
1	2	3	4	5	6	7

Reason for leaving, transfer or discharges	Nature of job or occupation	Raw material or by product handled	Date of medical examination by Certifying Surgeon
			Result of Medical Examination
8	9	10	11

- Note: -**
1. Column 8 - Detailed summary of reason for transfer or discharge should be stated.
 2. Column 14 - Should be expressed as fit/unfit/suspended.

If suspended from work, state period of suspension with detailed reason	Certified fit to resume duty on with signature of Certifying Surgeon	If certificate of unfitness or suspension if issued to worker.	Signature with date of Certifying Surgeon
12	13	14	15

Form No. 21

(Prescribed Under Rule 103)

Report Of Accident Including, Dangerous Occurrence Resulting In Death Or Bodily Injury

ESIC Employer's

Registration No.....

Code No.

Name and address of local

Licence No.

ESIC office

(As given in the licence)

1. Name and address of factory
2. Name, address and telephone number of the occupier
3. Nature of Industry
(As given in the Licence)
4. Date, shift and hour of accident or dangerous occurrence
5. Department section and exact place where the accident or dangerous occurrence took place
6. (a) Describe briefly how the accident or dangerous occurrence took place

(b) Did it involve Explosion..... Fire.....
Emission of toxic substance(s) Substance(s)
substance(s)emitted.....
7. Give the total number of persons injured / killed

Number of persons injured		Number of persons killed	
Inside the factory	*Outside the factory	Inside the factory	*Outside the factory

8. Name and address of witnesses
 - 1.
 - 2.

9. Cause of accident or dangerous occurrence

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

Signature of Manager/Occupier

Date :

Name (In block letters)
Address and Telephone number

- Note :-
1. *If in any accident / dangerous occurrence, persons outside the factory premises are injured or killed please furnish the information to the extent available.

2. Details regarding injury and persons injured / killed should be supplied in the format given in the Annexure.

(To be completed by the Inspector of Factories)

1. Date of receipt of the report
2. District
3. (a) Number allotted to accident involving injury and/or liability
(b) Number allotted to dangerous occurrence involving reportable injury and/or fatality
4. Date of investigation
5. Classification of accident
 - (a) Cause wise (Give code)
 - (b) Industry wise (Give *NIC Code)
 - (c) Dangerous operation wise (Give schedule number under Section 87)
 - (d) Hazardous process-wise section 2(cb)
 - (e) Occupation wise (NCO-code Number)
6. Result of investigation
7. Remarks, if any

Signature of the Inspector
Name (in block letters)

Date.....

*National Industrial Classification (NIC)

Annexure

Particulars of Persons Injured, Killed

1. Particulars of injured/killed person
 - (a) Name
 - (b) Age

- (c) Sex
- (d) Serial Number in the register of adult workers
- (e) Address
- (f) Precise occupation
- (g) Nature of job

2. Cause of injury Explosion.....Fire.....
 Emission of Toxic substance Others
 (Please specify)

3. Particulars of injury

- (a) Fatal (time and date of death)
- (b) Non-fatal (If serious, give the extent of injury such as loss of limb/sight & hearing, fracture, permanent impairment, severe burns)
- (c) State whether the injured person was disabled for more than 48 hours.
- (d) Location of injury (i.e. part of body such as right leg, left hand, left eye, etc. injured)

4. (a) State exactly what the injured person was doing at the time of accident or dangerous occurrence.

(b) Does this work fall in the category of hazardous/dangerous process or operations (please tick mark () in the box.

Hazardous
 process
 Dangerous
 process/operation

5. (a) Hour at which the injured person started work in the day of accident or dangerous occurrence.

(b) whether wages in full or part are payable to him for the day of accident or dangerous occurrence.

6. In case the accident or dangerous occurrence took place while travelling in the employer's transport, state whether-

- (a) the injured person was travelling as a passenger to and from his place of work
 - (b) the injured person or implied permission of his employer.
 - (c) the transport is being operated by or on behalf of the employer or some other person by whom it is provided in pursuance of arrangements made with the employer :
 - (d) the vehicle is being/not being operated in the ordinary course of public transport service.
7. In case the accident took place while meeting emergencies, state: -
- (a) its nature; and
 - (b) Whether the injured person at the time of accident was employed for the purpose of his employer's trade or business in or about the premises at which the accident took place
- 8.
- (a) Physicians, dispensary or hospital from whom or in which injured person received or is receiving treatment,
 - (b) Name of dispensary/panel doctor selected by the insured person.

Form No.21A

(Prescribed Under Rule 103)

Report Of Dangerous Occurrence Which Does Not Result In Bodily Injury

Registration Number
Licence Number
*NIC Code Number
(As given in the licence)

- 1. Name and address of factory
- 2. Name, address and telephone number of the occupier
- 3. Name of the Manager
- 4. Nature of Industry

5. Department, Section and exact place where the dangerous occurrence took place.
6. Date, shift, and hour of dangerous occurrence.
- (a) Type of dangerous occurrence (See overleaf)
- (b) Did it Involve Explosion Fire
Emission of Toxic/
Flammable/Explosive
Substance(s)
Substance(s) emitted.....
8. State exactly what happened

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

Date :

Signature of Manager
Name (in block letters)
Address and Tele. No.

(To be completed by the Inspector of Factories)

1. Date of receipt of the report
2. District
3. (a) Number allotted to the dangerous occurrence not involving injuries and/or death

(b) Number allotted to "Major accident" not involving reportable injuries and/or death
4. Date of investigation
5. Cause
6. *NIC Code (As given in the licence)
7. Result of investigation.

Schedule

The following classes of dangerous occurrence, whether or not they are attended by personal injury or disablement :-

1. Bursting of a plant used for containing or supplying steam under pressure greater than atmospheric pressure.
2. Collapse or failure of a crane, derrick, winch, hoist or other appliances in raising or lowering person or goods, or any part thereof, or the overturning of a crane.

3. 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 where a cotton opener is used.
4. 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.
5. Collapse or subsidence of any floor, gallery, roof, bridge, tunnel, chimney, wall, building or any other structure.

*National Industrial Classification (NIC)

Form No. 22

(Prescribed Under Rule 104)

Notice of Poisoning Or Disease

(See Instructions Reverse)*

¹ ESIC Employer's	Registration No.
Code No.....	Licence No.
Name and address of the injured person.....	² NIC Code No. (As given in the licence)
Local ESIC Office.....	

1. Name and address of factory
2. Name, address and telephone number of the occupier
3. Nature of Industry
4. Particulars of affected worker: -
 - (a) Name
 - (b) Age
 - (c) Sex
 - (d) Serial number as per Register of Adult/Child worker
 - (e) Address
 - (f) Precise occupation
 - (g) Nature of job
5. Nature of poisoning/disease (Give serial number and name as per

the list overleaf)

6. (a) Harmful agent or process to which poisoning or disease is attributed
 - (b) Approximate date of beginning and cessation of exposure of the worker to the harmful agent or process.
7. Has the case been reported to the Certifying Surgeon/Administrative Medical Officer, ESIC/Medical Inspector of Factories. Yes/No.

Date:

Signature of Manager
Name (in block letters)
Tel. No.

Note:- This notice should be sent forthwith to the following authorities;

1. Chief Inspector of Factories
2. Medical Inspector
3. Certifying Surgeon
4. Administrative Medical Officer, ESIC

(To be filled in by the Factory Inspectorate)

Number of the case

Remarks

Date

Signature

Name (In block letters)

Designation

*Notice of poisoning or disease

Footnotes:

1. Employee's State Insurance Corporation (ESIC)
2. National Industrial Classification (NIC)

Extract From the Factories Act, 1948 (Section 89)

Where any worker in a factory contracts any disease specified in the Schedule, the manager of the factory shall send a notice thereof to such authorities and in such form and within such time, as may be prescribed.

Schedule

List of Notifiable Diseases

1. Lead poisoning including poisoning by any preparation of lead or their sequelae.
2. Lead tetra-ethyl poisoning.
3. Phosphorous poisoning or its sequelae.
4. Mercury poisoning or its sequelae.
5. Manganese poisoning or its sequelae.
6. Arsenic poisoning or its sequelae.
7. Poisoning by nitrous fumes.
8. Carbon disulphide poisoning.
9. Benzene poisoning including poisoning by any of its homologue, their nitro or amide derivatives or its sequelae.
10. Chrome ulceration or its sequelae.
11. Anthrax.
12. Silicosis.
13. Poisoning by halogens or halogen derivative of the hydrocarbons of the aliphatic series.
14. Pathological manifestation due to -
 - (a) radium or other radio-active substances: and
 - (b) x-rays
15. Primary epithelionatous cancer of skin.
16. Toxic anaemia
17. Toxic jaundice due to poisoning substances.
18. Oil acne or dermatitis due to mineral oils and compounds containing mineral oil base.
19. Byssinosis.
20. Asbestosis.
21. Occupational or contact dermatitis caused by direct contact with chemicals and paints. The scare of two types that is primary irritants and allergic sensitizers.
22. Noise induced hearing loss (exposure to high noise levels).
23. Berryllium poisoning.

24. Carbon monoxide.
25. Coal mines plnountoconiosis.
26. Phosgenic poisoning.
27. Occupational cancer.
28. Isocynates poisoning.
29. Toxic nephritis.

Form No. 23

(Prescribed Under Rule 106)

**"Abstract Of the Factories Act 1948 And
The Gujarat Factories Rules, 1963"**

(To be fixed in a conspicuous and convenient place at or near the main entrance to the factory)

Interpretation

"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 of 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 operation¹[of the Mines Act, 1952 (XXX 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 adopting 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, or²[composing types for printing, printing by letter press, lithography, photogravure or other similar process or book-binding] or constructing, reconstructing, repairing, refitting, finishing or breaking up ships or vessels.

Footnote:

1. Subs. by Notfn. d. 27-10-1958.
2. Subs. by Notfn. d. 27-10-1958

Working hours. Houdays, Intervals for Rest etc.

1. Hours of work (Adults)-Section 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. ¹[The minimum limit may be exceeded in order to facilitate the change of shifts subject to the previous approval of the Chief Inspector.]

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 ²[x x x] 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 ³[in the printing of newspapers, which may be held up on account of break down of machinery, in the loading and unloading railway wagons].

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 than,
- (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.

²[The restrictions imposed by clauses (i) and (ii) of sub-section (4) of section 64 shall not apply to cases where a shift worker has failed to report for duty and another shift worker has to work the whole or part of a subsequent shift subject to the conditions prescribed by Government.]

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 far more than 9 hours in any day or far more than 48 hours in any week 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 in any work which for technical reasons must be carried on continuously subject to the conditions laid down in the Schedule attached to Manual.

5. Weekly Holiday (Adults)-Section 25:-

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 a 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 such 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 over more than 10 1/2 hours in any day or with the permission of the Chief Inspector in writing, 12 hours ⁴[subject to the control of the State Government, the Chief Inspector may by written order and for the reasons specified therein, exempt any factory so, however, that the total number of hours worked by a worker without any interval does not exceed six.]

7. Prohibition of Double employment-sections 61, 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 works in a factory on any day on which he has already been working in another factory, the parent or guardian of the child or 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 Rs. 50 unless it appears to the court that the child so worked without the consent or convenience 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 ⁵[during the night (Night means a period of at least twelve consecutive hours which shall include the interval between 10 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 holidays shall also apply to child workers and no exemption from this provision may be granted in respect of any child.

10. Prohibition of Employment of Women-Section 66:-

No women 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

⁶[11. Leave with wages-Sections 79, 80 and 83 and rules:-

Every worker who has worked for a period of 240 days or more in factory during a calendar year

shall be allowed during the subsequent calendar year leave with wages for a number of days calculated at the rate of -

- (i) if an adult, one day for every twenty days of work performed by him during the previous calendar year.
- (ii) if a child, one day for every fifteen days of work performed by him during the previous calendar year;

For the purpose of computation of the period of 240 days or more (a) any days of lay-off, by agreement or contract or as permissible under the standing orders; (b) in the case of female worker, 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 a worker has worked in factory.

The leave admissible shall be exclusive of all holidays whether occurring during or at-either end of the period of leave.

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 any overtime earnings and bonus, but inclusive of dearness allowance and the cash equivalent of any advantage accruing by the sale, by the employer of foodgrains and other articles at concessional rates for the days on which he worked during the months immediately preceding his leave.

Where the employment of a person commences otherwise than on the first day of January he shall be entitled to leave with wages at the rates laid down in sub-paragraph (1), if he has worked for two-thirds of the total number of days in the remainder of the calendar year.

If a worker is discharged or dismissed from service during the course of the year he shall be entitled to leave with wages at the rates laid down in sub-paragraph (1) irrespective of the number of days he has worked.

If the employment of a worker entitled to leave with wages is terminated by the occupier before he has taken the entire leave to which he is entitled, or if having applied for and having not been granted such leave, the worker 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, where the employment of the worker is terminated by the occupier, before the expiry of the second working day after such termination and where a worker who quits his employment, on or before the next pay day.

If a worker wants to avail himself of the leave with wages due to him to cover a period of illness he shall be granted such leave even though an application for the same is not made within 15 days in advance and in such cases he shall be paid wages of leave.

The Manager, shall maintain a leave with wages register in Form No. 18 and shall provide each worker with a book called the "Leave Book" In Form No. 19. The Leave Book shall be the property of the worker and the Manager or his agent shall not demand it except to make relevant entries therein whenever necessary, and shall not keep it for more than a week at a time. If a worker loses Leave Book the Manager shall provide him with another copy on payment of one anna 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 workroom 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 workroom 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 workroom of a factory in existence on 1st April, 1949 at least 350 cubic feet (e.g. 9,-90 cubic meters) and of a factory built after this date at least 500 cubic feet (i.e. 14.2 cubic meters) of space for every worker employed therein and for this purpose no account shall be taken of any space which is more than 14 feet (i.e. 4.27 meters) above the level of the floor of the room.

16. Lightening-Section 17:-

In every factory where workers are working or passing, there shall 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 maintained at suitable points, conveniently situated for all workers employed therein, a sufficient supply of whole some 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 and door fastenings. Sweeper 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 prime mover and every fly wheel 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:-

⁷No women or young person shall be allowed to clean, lubricate or adjust any part of a prime mover or of any transmission machinery while the prime mover or transmission machinery is in motion or to clean, lubricate or adjust any part of any machine, if the cleaning lubrication or adjustment thereof would expose the woman or young person to risk of injury from any moving part either of that machine or of any other adjacent machinery.

22. Employment of young persons on Dangerous Machinery :-

Section 23.-No young person 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 April, 1949 every set screw, belt 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 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 as it would be if it were completely encased.

Whoever sells or lets on hire or as agent of a seller of 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 passing cotton in which a cotton opener is at work.

⁸24-A. Lifting Machines, Chains, Ropes and Lifting Tackles-Section 29:-

All parts including the working gear, whether fixed or movable of every lifting machine and every chain, rope or lifting tackle shall be of good construction, sound material and adequate strength and free from defects: properly maintained and thoroughly examined by a competent person at least once in every period of twelve months and a register shall be maintained in a prescribed form of every such examination. Effective measures shall also be taken to ensure that the crane does not approach within twenty feet of the place where person is employed or working or on near the wheel track of a travelling crane.

25. Excessive Weight-Section 34:-

No woman or young person shall unaided by another person lift carry or move by hand or on head, material article, tool or appliance exceeding the following limits :-

Kgms.

Adult female

29.5

Adolescent male	29.5
Adolescent female	20.4
Male child	15.9
Female child	13.3

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 reasons of exposure to excessive light.

27. Precaution 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 other exist affording a means of escape in case of fire, other than the means of exit in ordinary use shall be distinctively marked. Effective and clear 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 ground floor, or wherein explosive or highly inflammable materials are used or stored, all the workers are familiar 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 arrangement for sitting shall be provided and maintained for all workers obliged to work in a standing, position in order that they may take advantage 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 cupboard equipped with the prescribed contents. ⁹Each first-aid box or cupboard shall be kept in the charge of a separate responsible person who is trained in first aid

treatment and who shall always 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-profit basis and the 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 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 meals brought by them shall be provided and maintained for 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 her child and a sufficient supply of suitable toys for older 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 284 - 1 milliliters 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 dally work suitable intervals to feed the child. For children above two years of age, there shall be provided in addition, an adequate supply of wholesome refreshment. A suitably fenced and shady open air play-ground shall be also 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

¹⁰[36. Dangerous Operations-Section 87 and Rules:-

Employment of women, adolescents and children is prohibited or restricted in certain operations declared to be dangerous e.g.:-

- (i) manufacture of aerated water and processes incidental thereto :

- (ii) electrolytic plating or oxidation of metal articles by use of an electrolyte containing chromic acid or other chromium compounds;
- (iii) manufacture and repair of electric accumulators; (iv) glass manufacture;
- (v) grinding or glazing of metals;
- (vi) manufacture and treatment of lead and certain compounds of lead;
- (vii) generation of gas from dangerous petroleum as defined in clause
- (b) of section 2 of the Petroleum Act, 1934;
- (viii) cleaning or smoothing of articles by a jet of sand, metal shot or grit or other abrasive propelled by a blast or compressed air or steam;
- (ix) Liming or tanning of raw hides and skins and processes incidental thereto;
- (x) manufacture of chromic acid or manufacture or recovery of the bichromate of sodium or potassium or ammonium;
- (xi) manipulation of nitro or amino compounds;
- (xii) manipulation of acids and alkalis;
- (xiii) manufacture of bangles and other articles from cinematograph films and acetone, tetrachloroethene and other toxic and inflammable solvents;
- (xiv) processes involving manufacture, use or evolution of carbon disulphide, and hydrogen sulphide, and
- (xv) manufacture and manipulation of dangerous pesticides.]

37. Notice of Accidents-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 of one of the following types-

- (i) Bursting of a vessel used for containing steam under pressure greater than atmospheric pressure other than plant which comes within the scope of the Indian Boilers 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 a 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 gasses (including air) or any liquid or solid resulting from the compression of gas;
- (v) Collapse or subsidence of any floor-gallery, floor, bridge, tunnel, chimney, wall or building forming part of a factory or within the compound or cartilage of factory;

the Manager of the factory shall forthwith send notice thereof to the Chief Inspector. If the accident is fatal or of such 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.

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 bisulphide 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 anaemia, toxic jaundice, primary epitheliomatous 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 or facilities to be provided or any equipments or appliances to be supplied by the occupier under the provisions of the Act.

40. Power of Inspectors-Section 9 and 82:-

Inspectors have power to inspect factories any time and may require the production of registers, certificate, etc. prescribed under the Act and the Rules.

Any Inspector may institute proceedings on behalf of any worker 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. Obligations of Workers-Sections 97 and 111:-

No worker in a factory: -

- (i) shall wilfully interfere with or misuse any appliance, convenience or other thing provided in a factory for the purpose 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 factory contravenes any of these provisions or any rule or order made there under he shall be punishable with imprisonment for a term 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 there under imposing any duty or liability on workers 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 occupier and shall not be recoverable from the young person, his parents or guardians.

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 certificate 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 the employment of young persons. No such adolescent who has not attained the age of seventeen years shall be employed or permitted to work in any factory during night and for this purpose "night" shall mean a period of at least twelve consecutive hours which shall include an interval of at least seven consecutive hours falling between 10 p.m. and 7 a.m. ¹¹An 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. 15 and a register of child workers in the prescribed Form No. 17 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 No. 14 and 16 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 period of work displayed in the factory.

The owners, occupiers or managers of factories shall submit the prescribed periodical returns to the Inspector regularly.

Footnotes:

1. Add by Notfn. d. 27-10-1958.
2. Del. by Notfn. d. 27-10-1958.
3. Added by Notfn. d. 27-10-1958.
4. Added by Notfn. d. 27-10-1958.
5. Del. and Ins. by Notfn. d. 27-10-1958.
6. Paragraph 11 deleted and new paragraph substituted by Notfn. d. 27.10.1958.
7. Subs. by Notfn. 27-10-1958.
8. Ins. by Notfn. d. 27-10-1958.
9. Del. and added by Notfn. d. 27-10-1958.
10. Subs. by Notfn. d. 6-8-1966.

11. Ins. by Notfn. d. 27-10-1958.

Form No. 24

**Master Form In Respect Of The Factories Act, 1948, Payment Of Wages Act, 1936,
Maternity Benefit Act, 1961,**

**Workmen's Compensation Act, 1923 And As Applicable To Registered Factories Covered
Under The Factories Act, 1948**

For the year ending 31st December, 20

Part A

(Prescribed Under clause (1) of Rule 107).

1. (a) Registration number of factory
(b) Licence number of factory.
(c) Section of the Act under which

the factory is covered :-

Section 2 (m)(i).....

Section 2 (m)(ii).....

Please tick (✓) the appropriate box.

Section 85-Chemical.....

Section 85-Non Chemical.....

2. Name of factory
3. Name of occupier.
4. Name of manager.
5. District.
6. Full postal address of the factory
including PIN Code.
7. Industry
(a) (i) Nature of Industry (Mention what
is actually manufactured, including;
repairs of all types, following the
National Industrial Classification. 1987
at the digit level)
(ii) NIC Code Number (4 digit as given in the licence)
(b) Sector of industry

Public Sector

Please tick (✓) the appropriate box.

Joint Sector

Co-operative Sector

Private Sector

- (c) In case the factory is a Major Accident Hazard (MAH) Installation furnish the following Information (See Explanatory Note 'AA') Name of the MAH Substance (See explanatory Note 'BB')

Quantity

In stock In process

1.

2.

3.

8. (a) Number of days the factory worked in the year (see explanatory note B)

(b) Number of weeks the factory worked in the year:

Number of workers and particulars of employment

9. Number of man days worked (i.e. aggregate number of attendance during the year).

(See explanatory note 'C')

- | | |
|-----------------|-------------|
| (a) Adults | (i) Men |
| | (ii) Women |
| (b) Adolescents | (i) Male |
| | (ii) Female |
| (c) Children | (i) Boys |
| | (ii) Girls |
| | Total |

10. Average number of workers employed daily i.e. Man-days worked divided by Number of days worked (See explanatory note 'D')

- | | |
|------------|---------|
| (a) Adults | (i) Men |
|------------|---------|

- (ii) Women
- (b) Adolescents
 - (i) Male
 - (ii) Female
- (c) Children
 - (i) Boys
 - (ii) Girls
- Total

11. Total number of man-hours worked including overtime but excluding rest Interval (See explanatory note 'E')

- (a) Adults
 - (i) Men
 - (ii) woman
- (b) Young persons
 - (i) Male
 - (ii) Female
- Total

12. Average number of hours worked per week i.e. Total man-hours worked (Average dally employment) (sec explanatory note 'F')

- (a) Adults
 - (i) Men
 - (ii) woman
- (b) Young persons
 - (i) Male
 - (ii) Female
- Total

13. In respect of factories carrying on processes or operation declared dangerous under section 87.furnish the following information. (See explanatory note 'G')

Name of the dangerous process or operation carried on (See explanatory Note 'G')	Average number of persons employed daily in each of the process or operation given (See explanatory Note 'D')	Number of persons			
		Medically examined		Declared unfit	
		Male	Female	Male	Female

1	2	3	4	5	6
(i)					
(ii)					
(iii) etc.					

14. In respect of factories carrying on 'hazardous process' as defined in section 2(cb) furnish the following information (See explanatory note 'H')
Name of the Industry as per First Schedule:

Name of the dangerous process or operation carried on (see explanatory Note 'G')	Average number of persons employed daily in each of the process or operation given (See explanatory Note 'D')	Number of persons			
		Medically examined		Declared unfit	
		Male	Female	Male	Female
1	2	3	4	5	6
(i)					
(ii)					
(iii) etc.					

Leave With Wages

15. Total number of workers employed during the year (See explanatory note 'J')

- | | |
|-------------------|-------------|
| (a) Adults | (i) Men |
| | (ii) Women |
| (b) Young persons | (i) Male |
| | (ii) Female |
| | Total |

16. Number of workers who were entitled to annual leave with wages during the year

- | | |
|-------------------|-------------|
| (a) Adults | (i) Men |
| | (ii) Women |
| (b) Young persons | (i) Male |
| | (ii) Female |

- Total
17. Number of workers were granted leave' during the year (See the explanatory note 'K')
- (a) Adults (i) Men
(ii) Women
- (b) Young persons (i) Male
(ii) Female
- Total

18. (a) Total number of workers discharged/dismissed from the service/quit employment/ superannuated/ died while in service during the year.
- (b) Number of workers in respect of whom wages in lieu of leave were paid

Safety Officers

(See Explanatory Note 'L')

19. (a) Is the factory notified for appointment of Safety Officers under section 40-B(1)(i)Yes.....No
- (b) Is the factory notified for appointment of Safety officers under section 40-B(1)(ii) (for the factories other than those in (a) above)Yes.....No
- (c) Number of Safety officers appointed

Health and Safety Policy

Information to be furnished only by

- (a) Factories covered under section 2(cb) of section 87 of the Act, and
- (b) Factories other than (a) But employ ordinarily, in case of factories registered under
- (i) Section 2(M)(1) 50 or more workers; and
- (ii) Section 2(M)(ii), 100 or more workers.

20. Has the factory formulated Health and Safety Policy? If yes enclose a copy thereof.Yes.....No

Safety Committee

(Information to be furnished only by (1) factories carrying on hazardous process or dangerous operations, and (ii) other factories employing 250 or more workers).

21. Is safety committee appointed? if more than one committee, give numbers.Yes.....No

Emergency Plan

(Information to be furnished by factories covered under 2(cb).

(See explanatory note 'M')

22. (a) Has the factory got on-site emergency planned ?Yes.....No
Has it been revised ?Yes.....No
If so, when was it last revised ?
(b) If an off-site emergency plan is required to be prepared and has it been prepared ?Yes.....No

Medical Facilities

23. Information to be furnished only by: -

- (a) Factories employing 200 or less persons covered under section 2(cb) or 87: -
(i) Number of Factory Medical Officers (appointed on retainership basis or part-time basis)
(ii) Number of ambulance vans available with factory directly or through arrangement :
(b) Factory employing above 200 workers covered under section 2(cb) or 87 :
(i) Number of Factory Medical Officers (appointed on retainership basis or part-time basis)
(ii) Number of ambulance vans available:
(c) All factories employing 500 or more workers:

- (i) Number of full time Factory Medical Officers:
- (ii) Number of ambulance vans:
- (iii) Number of ambulance rooms provided

Competent Supervisors

(See explanatory note 'N')

(Information to be furnished only by factories covered under section 2(cb))

- 24. (a) Number of competent supervisors appointed.
- (b) Number of competent supervisors who have received safety training as required under Rule 68-S

Industrial Hygienists

(See Explanatory Note 'O')

- 25. Number of Industrial hygienists employed to monitor work environment as required under section 7-A, Section 112.

Canteens

- 26. (a) Is there a canteen provided in the factory as required under section 46 (i.e. only those factories 'will furnish information wherein more than 250 workers are ordinarily employed?Yes.....No
- (b) Is the canteen provided, managed/run
 - (i) Departmentally, or Yes No.
 - (ii) Through a contractor Yes No

Shelter or Rest Rooms and Luh Rooms

(Only those factories will furnish information wherein 150 or more workers are ordinarily employed)

- 27. As required under section 47: -
 - (a) Are there adequate and suitable shelters or rest rooms provided in the factory? Yes..... No.....
 - (b) Are there adequate and suitable lunch rooms provided in the factory (any canteen maintained in compliance with section 46 will be accepted here also). Yes.....No.....

Creches

occurrences involving injuries/deaths								
*4. Major accidents involving injuries/deaths								
5. Major accidents not involving injury/death								

*See explanatory note 'F (3).

(b) for injuries occurring inside the factory

Number of injuries occurring in								
Hazardous Process under Section 2 (cb)			Dangerous Operations under Section 87			Others		
Number of			Number of			Number of		
Accidents	Person injured		Accidents	Person injured		Accidents	Person injured	
	Fatal	Non-fatal		Fatal	Non-fatal		Fatal	Non-fatal
1	2	3	4	5	6	7	8	9

- (c) (i) Non-fatal injuries (workers injured) during the year in which injured workers returned to work during the same year, (aa) Number of Injuries (bb) Mandays lost due to injuries
- (ii) Non-fatal injuries (workers injuries) occurring in the previous year in which injured workers returned to work during the year 10 which this return results: (aa) Number of Injuries (bb) Mandays lost due to injuries (This should be the total mandays lost during the previous year as well as in the current year)
- (d) Non-fatal injuries (workers injured) occurring in the year in which injured

workers did not return to work during the year to which this return relates.

- (aa) Number of Injuries
- (bb) Mandays lost due to injuries.

Part B

(Under the Payment of Wages Act. 1936)

- 32.** (i) Number of mandays worked (i.e. aggregate number of attendance) during the year for person earning less than Rs.1600/- per month (See explanatory note 'C')
- (a) Adults
 - (b) Young person
- Total
- (ii) Average number of workers employed daily (i.e. mandays worked divided by number of days worked) for person earning less than Rs. 1600/- per month (See explanatory note 'D')
- (a) Adults
 - (b) Young person
- Total
- 33.** Total wages paid' including 'Deductions' under Section 7(2) of the Payment of Wages act, 1936 for persons getting less than Rs.1600 per month on the following accounts.
- (a) Basic wages only Rs.
 - (b) Dearness Allowances Rs.
 - (c) Composite wages (i.e. if combined basic wage and Dearness allowance paid) Rs.
 - (d) Overtime wages Rs.
 - (e) Non-profit sharing Bonus Rs.
 - (f) Any other bonus (other than profit sharing bonus and non-profit sharing bonus) forming part of wages as defined under the Act. Rs.
 - (g) Any other amount paid in cash which may form part of wages as defined under

the Act (Please specify) Rs.

(h) Arrears of Pay in respect of previous year paid during the year Rs.

(i) Total wages paid (total of (a+b) or (c) + d + e = (g + h) Rs.

34. "Gross amount paid" as remuneration to person getting less than Rs. 1600/-per month including deduction under section 7(2) of the Act on the following accounts :-

(a) Total wages paid (Item 33) during the year Rs.

(b) "Bonus paid" during the year (include arrears also, if paid during the year. This is statutory sharing bonus) Rs.

(c) "Amount of Money Value of commission" given during the year Rs.

[See explanatory note (Q)]

35. Deductions-number of cases and amount realized.

Persons earning less than Rs. 1600/- per month
No. of Cases

Amount realised

Rs.

(a) Fines

(b) Deductions for damage or loss

(c) Deduction for breach of contract

Total

36. Fines fund

(i) Balance of fines fund in hand at the beginning of the year Rs.

(ii) Disbursement from fines fund
Total" Rs.

Purpose Amount

(a)

(b)

(c)

(d)

Total

(iii) Balance of fines fund in hand at the end of the year.

Rs.

Part -C

Maternity Benefit Act 1961 & E.S.I.C. Act, 1948

- 37.** (a) Name of Medical officer, if any, attached to the establishment.
(b) Qualifications of Medical Officer attached to the establishment.
(c) Is he resident at the establishment ?
(d) If a part-time employee, how often does he pay visit to the establishment.
- 38.** (a) Is there any hospital attached to the establishment.
(b) If so, how many beds are provided for women employees ?
(c) Is there a Lady Doctor ?
(d) If so, what her qualifications ?
(e) Is there a qualified Midwife ?
(f) Has any Creche been provided ?
- 39.** (1) Aggregate number of women permanently or temporarily employed during the year.
(2) Number of women who worked for a period of not less than one hundred and sixty days in the twelve months immediately preceding the date of delivery.
(3) Number of women who gave notice under section 6.
(4) Number of women who were granted permission to be absent on receipt of notice of confinement.
(5) Number of claims for maternity benefit paid.
(6) Number of claims for maternity benefit rejected.
(7) Number of cases where prenatal confinement and postnatal care was provided by the management free of charge (Section 8) Number of claims for medical bonus paid (Section 8)
(8) Number of claims for medical bonus rejected.

- 40.** (1) Number of cases in which leave for miscarriage was granted.
- (2) Number of cases in which leave for miscarriage was applied for but was rejected.
- (3) Number of cases in which additional leave for illness under Section 10 was granted.
- (4) Number of cases in which additional leave for illness under Section 10 was applied for but was rejected.
- 41.** (1) Number of women who died
- (a) before delivery
- (b) after delivery
- (2) Number of cases in which payment was made to persons other than the women concerned.
- (3) Number of women discharged or dismissed while working.
- (4) Number of women deprived of maternity benefit and/or medical bonus under provision to sub-section (2) of Section 12.
- (5) Number of cases in which payment was made on the order of the Competent Authority or Inspector.
- (6) Remarks
- 42.** Full particulars of such case and reasons for the action taken under serials 39(6). 39(9), 40(2). 40(4). 41(3). 41(4) should be given in the appendix below.

Details of payment made during the year ending 31st December.....Establishment.

Name of person to whom paid

Amount paid (Rs.)

1. Date of payment.
2. Women employee.
3. Nominee of the woman.
4. Legal representative of the woman.
5. Amount for the subsequent period.
6. Under section 8.
7. Under section 9.
8. Under section 10.
9. Number of Women workers who absconded after receiving the first installment of maternity benefit.
10. Cases when claims were contested in a court of law.

	Adults	Young Person	Total	Adults	Young Person	Total	Adults	Young Person	Total
11	12	13	14	15	16	17	18	19	20
Total									

44. Occupation Disease (Occupationwise) (See explanatory note 'W')

Name of Occupation	Natures of Disease (See explanatory note 'X')	Number of Injuries (See explanatory note T) in respect of which final compensation has been paid during the year								
		Death			Permanent Disablement			Temporary Disablement (See explanatory note 'V')		
		Adults	Young Person	Total	Adults	Young Person	Total	Adults	Young Person	Total
1	2	3	4	5	6	7	8	9	10	11
Total										

Name of Occupation	Amount of Compensation (See explanatory note 'U') Paid Rs.								
	Death			Permanent Disablement			Temporary Disablement (See explanatory note 'V')		
	Adults	Young Person	Total	Adults	Young Person	Total	Adults	Young Person	Total
12	13	14	15	16	17	18	19	20	21
Total									

AA. Major Accident Hazard Factory is one having an industrial activity using, producing or storing hazardous substance in such quantity that possess the potential to cause substantial damage and to kill or injure a person within or outside the factory boundary.

B. 1. Working day should be taken to be a day on which the establishment actually worked and manufacturing process was carried on including the day on which although no manufacturing process (preceding the date under consideration) were deployed on maintenance and repair work, etc. on closed days. Days on which the factory was closed for whatever cause and days on which no manufacturing process was carried on should not be treated as working days.

2. For seasonal factories information about working season and off-season should be given separately.

BB. Major Accident Hazardous substance means a substance presenting Major accident hazard and included in the list already circulated and which have been classified into five groups.

Section 2(12) of Employees State Insurance Act, 1948 defines 'Seasonal factory' as follows:

'Seasonal Factory' means a factory which is exclusively engaged in one more of the following manufacturing processes, namely, cotton ginning, jute or cotton pressing, deceleration of ground nuts, the manufacture of coffee, indigo, lac, rubber, sugar (including gur) or tea or any manufacturing process which is incidental to or connected with any of the aforesaid processes and includes a factory which is engaged for a period of not exceeding seven months in a year: -

- (a) in any process blending, packing or repacking of tea or coffee; or
- (b) in such other manufacturing process as the Central Government may, by notification in the Official Gazette, specify :

The expression "Manufacturing process" and "power" shall have meanings respectively assigned to them in the Factories Act, 1948 (63 of 1948).

- C. Mandays worked should be the aggregate number of attendance of all the workers, covered under the Act, in all the working days. In reckoning attendance, attendance by the temporary as well as permanent employed should be counted, and all employees should be included, whether they are employed directly or under contractors (apprentices, who are not covered under the Apprentices Act, 1961, are also to be included). Attendance on separate shifts (e.g. night and day shifts) should be counted separately. Partial attendance for less than half a shift on a working day should be ignored while attendance for half a shift or more on such days should be treated as full attendance.
- D. The average number of workers employed daily should be calculated by dividing the figures of "Mandays worked" by Number of Days worked' in the year. For seasonal factories, the average number of workers employed daily during the working season and off-season should be given separately. (Refer note B. 2).
- E. The Total Number of Man hours worked' should be the Total Actual Hours Worked by all the workers during the year excluding Rest intervals but including Overtime worked. The term 'young person' shall include 'Adolescents' also who have not been certified to work as adults.
- F. The 'Average Number of Hours Worked per week' should be calculated by dividing the 'total Number of Man-hours Worked' by the product of 'Average Number of Workers Employed Daily' in the factory during the years (item 10) and 52 (i.e. number of weeks during the year). In other words, $\text{item 11} + (\text{item 10} \times 25) = \text{item 12}$. In case the factory has not worked for the whole year, the number of weeks during which the factory worked should be used in place of figure 52, for seasonal factories, the 'Average Number of Hours Worked per week' during the working season and off- season should be given separately.
- G. All such 'Dangerous Process or Operations' as specified and declared in the Rules framed under section 87 of the Factories Act, 1948 should be checked. If the factory or even a part of the factory submitting returns falls under this Section, the fact should be mentioned against this item and requisite information furnished accordingly.
- H. All such 'Hazardous Processes' in relation to the industries specified in the First Schedule to the Factories Act and defined under Section 2(cb) of the Act should be checked. If a factory or even a part of the factory submitting returns falls under this Section, the fact should be mentioned against this item and requisite information furnished accordingly.
- I. There may be a number of 'hazardous processes' being carried on in any one industry specified in the First Schedule to the Act, all such processes should be given individually in this table.

- J. All persons, who have been on roll even for a single day during the year should be taken into account. Care should be taken that a particular worker is counted once only.
- K. At particular worker is to be counted once only even if the same worker has been granted leave more than once during the year.
- L. In every factory, wherein 100 or more workers are ordinarily employed and the factory has been notified under section 40- B(I)(i), or wherein the factory is carrying on any hazardous process defined in section 2(cb) or dangerous operations as defined in section 87, and the factory has been notified under section 40-B(I)(ii), the occupier shall employ the required number of safety officers with prescribed qualifications. The term 'ordinarily employed' would mean the total number of workers working in all the shifts and the employment should be for over 50% of the working days of the establishment in the year.
- M. The occupier of every factory where a 'hazardous process' takes place or where hazardous substances are used or handled shall with the approval of Chief Inspector of Factories draw up an on-site emergency plan for this factory and make known to the workers employed therein the safety measures required to be taken in the event of an accident taking place. The occupier shall prepare off-site emergency plan based on events which could affect people and the environment outside the work premises. The District/ local authority will prepare disaster plan for the area based on off-site plans of individual units.
- N. All persons who are required to supervise the handling of 'hazardous substances' shall possess: -
 - (a) Degree in Chemistry or diploma in Engineering or Technology with five years of experience or
 - (b) Master's Degree in Chemistry or a degree in Chemical Engineering or Technology with 2 years experience.

Note:- The experience stipulated above shall be in process operation and maintenance in Chemical Industry.

- O. The occupier shall appoint Industrial Hygienist possessing: -
 - (a) Master of science degree in Chemistry with. 2 years analytical experience in Chemical laboratory of repute; or
 - (b) Master of Science degree in Chemistry with 2 years experience in conducting survey in Industrial hygiene.
- P. (1) Dangerous occurrence-The following- classes of occurrence are dangerous Occurrences: -
 1. Bursting of a plant used for containing or supplying steam under pressure greater than atmospheric pressure.
 2. 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.
 3. 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 where a cotton opener is in use.
 4. 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.

5. Collapse or subsidence of any floor, gallery, roof bridge, tunnel, chimney, wall, building, or any other structure.
- (2) Only such injuries which prevented workers from working for 48 hours or more immediately following' the accident should be reported as non- fatal injuries.
 - (3) A major accident is a sudden, unexpected, unplanned event, resulting from uncontrolled developments during an industrial activity, which causes, or has the potential to cause, serious adverse effects immediate or delayed (death, injuries, poisoning or hospitalization) to a number of people inside the installation and/or to persons outside the establishment.
- Q. The 'Money Value of concession' is the cost of value or the net cost of the concession, as the case may be, in respect of all supplies made and all services rendered individually free of cost. In case of concessional sale of essential commodities to the employees, the difference between the purchase price paid by the employer and the actual price paid by the employees is to be taken as the basis for computing the 'Money Value of Concession'.
- R. 'Cash value of Wages paid in kind' and of 'Concession' in respect of essential commodities at concessional rate authorised under sub-section (2) and (3) of section 11 of the Minimum Wages Act. 1948 shall be estimated in the manner prescribed by the Appropriate Government. In so far as the Central Government is concerned as laid down under Rule 20 of the Minimum Wages (Central) Rules, 1950 the prices at the retail price at the nearest market shall be taken into account in computing the Cash Value of wages paid in kind. This computation shall be made in accordance with directions as may be issued by the Central Government from time to time. The cash value of the concession should be obtained by taking the difference between the cost price paid for supplies of essential commodities given at the concessional rates.
- S. Include all employees (covered under the Workmen's Compensation Act, 1923) whether permanent or temporary who would in the case of accidents, be eligible for compensation under the Act and for whom a return is required to be furnished. Number of employed should be shown even if there are no payment of compensation to report.
- T. Include for each occupation only those cases in which the final payment of compensation was made during the year. A deposit with the Commissioner should be treated as a payment by the employer.
- U. 1. Include all compensation paid in respect of the cases mentioned in explanatory note "T". whether such compensation was paid during the year or previous to its commencement. Exclude all payments in cases in which the final payment had not been made by the end of the year to which the return relates.
2. Where the benefit actually showed (e.g. hospital leave on full pay) is in excess of the compensation admissible under the Workmen's Compensation Act, 1923, only the amount of the compensation so admissible should be entered in the return.
- V. Only such disablements as' last for more than three days should be shown (Section 4(1) of the Workmen's Compensation Act. 1923).
- W. Check up with the 'List of Occupational Diseases' as laid down in schedule III appended to the Workmen's Compensation Act, 1923. In case of those 'Occupational Diseases' only, which resulted in cases, in respect of which compensation was paid, the information is to be furnished.
- X. Enter for, each occupation separately each of the 'Diseases' referred to in explanatory note W, which resulted in cases in respect of which compensation was paid.

*Employees State Insurance Corporation (ESIC) *National Industrial Classification (NIC)
*Master of Science (M. Sc).

Form No. 25

(Prescribed under Clause (2) of Rule 107)

Half Yearly Return

For the half year ending June. 19.....

Registration number:
Licence number:
*NIC Code number:
(As given in the licence)

1. Name of factory
2. Name of Occupier
3. Name of Manager
4. District
5. Full postal address of the factory (including PIN Code)
6. Industry
 - (a) Nature of Industry
(See explanatory note-1)
 - (b) Sector Industry (Mention whether establishment belong to public or Private Sector (See explanatory note-2)
 - (c) Section of the Act under which the Factory is covered (please tick (✓) the appropriate box)

2(m)(i)	:
2(m)(ii)	:
Section 85	:
7. Number of days factory worked during the half year ending 30th June. 19
8. Number of mandays worked during the half year ending 30th June, 19
 - (a) Adults
 - (i) Men
 - (ii) Women
 - (b) Adolescents
 - (i) Male

- (ii) Female
- (c) Children
 - (i) Boys
 - (ii) Girls
- Total

9. Average number of workers employed dally (See explanatory note-3)

- (a) Adults
 - (i) Men
 - (ii) Women
- (b) Adolescents
 - (i) Male
 - (ii) Female
- (c) Children
 - (i) Boys
 - (ii) Girls
- Total

10. Medical Information:

- (a) Total number of workers employed in hazardous processes
- (b) Name of the hazardous agents.
- (c) Number of medical officers employed
 - (i) Full time
 - (ii) Part time
- (d) Number of workers examined by Factory Medical Officer
 - (i) Workers working in hazardous process:
 - (ii) Others.

Date:

Signature of Manager

Name (in block letters)

*National Industrial Classification (NIC).

Explanatory Notes :-

1. Mention what is actually manufactured, including repairs of all types, following NIC Code at the

four digit level.

2. Establishment in 'public sector' means an establishment owned, controlled or managed by (i) The Government or the Department, or (ii) a Government Company as defined in Section 617 of the Companies Act, 1956, or (iii) a Corporation established by or under Central, Provincial or State Act, which is owned, controlled or managed by the Government or (iv) a Local Authority.

Establishment in 'Cooperative Sector' means an establishment managed by a Co-operative Society registered under the Cooperative Societies Act, 1912.

3. (i) Working day should be taken to be day on which the establishment actually worked and manufacturing process was carried on including the day on which although no under consideration) were deployed on maintenance and repair work etc. on closed days. Days on which the factory was closed for whatever cause and days on which manufacturing process was carried on should not be treated as working days.
(ii) for seasonal factories information about working season and offseason should be given separately.
4. Mandays worked should be the aggregate number of attendance of all the workers, covered under the Act, in all shifts on all the working days in reckoning attendance, should be counted and all employees should be included, whether they are employed directly or under contractors (Apprentices, who are not covered under the Apprentices Act, 1961, are also to be included). Attendance on separate shifts (e.g. night and days shifts) should be counted separately. Partial attendance for less than half a shift on a working days should be ignored while attendance for a half shift or more on such day should be treated as full attendance.
5. The average daily number should be calculated by dividing the aggregate number of attendance (mandays worked) on working days by the number of working days during the half year.

*Section 2(12) of E.S.I. Act, 1948 defines "Seasonal Factory" as follows: -

'Seasonal Factory' means a factory which is exclusively engaged in one or more of the following manufacturing processes, namely cotton ginning, cotton or jute pressing, decertification of groundnuts, the manufacture of coffee, indigo, lac. rubber, sugar (including gur) or tea or any manufacturing process which is engaged for a period of not exceeding seven months in a year-

- (a) in any process of blending, packing or re-packing of tea or coffee; or
- (b) in such other manufacturing process as the Central Government may, by notification in the Official Gazette, specify:

The expression 'manufacturing process' and 'power' shall have the meaning respectively assigned to them in the Factories Act, 1948 (63 of 1948).

*National Industrial Classification (NIC).

Form No. 26

(Prescribed under Rule 2(A))

Form of Application for Grant of Certificate of Competency to a Person under Sub-

Rule (3) Of Rule 2(A).

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

Name of the Organization	Period of service	Designation	Area of Responsibility
---------------------------------	--------------------------	--------------------	-------------------------------

-
7. Membership, if any, of professional bodies.
 8. (i) Details of the facilities (examination, testing etc.) at his disposal,

(ii) Arrangements for calibrating and main-training 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 other statute" (if so, furnish 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 organisation. I will promptly inform the Chief Inspector.
- (b) to maintain the facilities in good working order, calibrated periodically as per manufacturers instruction or as per National Standards; and
- (c) to fulfill and abide by all the conditions stipulated in the certificate of competency and instructions issued by the Chief Inspector from time to time.

Place:

Date :

Signature

To be filled in by 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 purpose of being declared as a competent person under the Act. I also undertake that I shall:-

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

Signature.....

Designation.....

Telephone No.....

Date:

Official seal.....

Form No. 26.A

(Prescribed Under Rule 102)

Test Report; Dust/Fume-Extraction System

- 1. Description of system
- 2. Hood:
 - (a) Serial No. of Hood
 - (b) Contaminant captured
 - (c) Capture velocities (at points to be specified design value. Actual value)
 - (d) Volume exhausted at hood.
 - (e) Hood static pressure.
- 3. Total pressure drop at
 - (a) Joints.
 - (b) Other points of system (to be specified)
- 4. Transport velocity in Dust/Fume

(at points along ducts to be specified)

5. Air cleaning device
 - (a) Type used.
 - (b) Velocity at inlet
 - (c) Static pressure at inlet.
 - (d) Velocity at Outlet.
6. Fan
 - (a) Type used
 - (b) Volume handled
 - (c) Static pressures.
 - (d) Pressure drop at outlet of fan.
7. Fan motor
 - (a) Type
 - (b) Speed and horse power
8. Particulars of defects, if any, disclosed during test in any of the above components.

I, certify that on this.....day of the above dust/fume extraction system was thoroughly cleaned and (so far as its construction pennit) rnade accessible for thorough examination.

I, further certify that on the said date. I thoroughly examined the above dust/ fume extraction system including its components and fittings and all the above is true report of my examination.

Signature.....

Qualification.....

Dated.....

Address.....

If employed by a company or Association give name and address.

Form No. 27

[Prescribed Under Rule 2(A)]

Form of Application for Grant of Certificate of Competency to an Institution under Sub-Rule (3) Of Rule 2(A)

1. Name and full address of the Organisation.

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

S. No.	Name and Designation	Qualifications	Experience	Section(s) and the Rules under which competency is sought for
1.				
2.				

6. Details of facilities (relevant to item 3 above) and arrangements made for their maintenance and periodic calibration.
7. Any other relevant information.
8. Declaration:

I.....hereby, on behalf of.....certify that the details furnished above by (Name of Institution) 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 fulfill and abide by all the conditions stipulated in the certificate of competency and instructions issued by the Chief inspector from time to time.

Signature of Head of the Institution or of the person authorised to sign on his behalf
Place and Date

Designation:

Number of relay if working in shift	Adolescent if certified as adult		Period of work	Daily attendance for the month of
	Number and date of certificate	Token number under Section 68		
8	9	10	11	12

Total	Man days lost due to				
	Strike	Lay off	Lockout	Leave with pay	Leave without pay
13	14	15	16	17	18
Any other person	Total of 15 to Col. 20	Number of festival and national holidays	Number of weekly holidays (off) paid for	Total mandays paid for*	Remarks
19	20	21	22	23	24

*Sum of Column 14 + Col. 18 + Col. 22 + Col 23 + (Col. 15 to 17 if paid for)

Form No. 29

(Prescribed Under Rule 111)

Register of Accidents, Major Accidents and Dangerous Occurrences

Date & Time of notice	Name and serial number of the person involved in the register of adult/child register	ESIC Insurance number
2	3	4

Injury/Dangerous Occurrence

Date	Time	Place	Cause of accident/ major accident/ dangerous occurrence	Nature of injury/ dangerous occurrence	What exactly was the injured person, if any, doing at that time
5	6	7	8	9	10

Name of the person giving the notice	Name, address and occupation of two witnesses	Date of return of injured person to work	Number of days the injured person was absent from the work including holidays and off days	Signature and designation of the person who makes the entry with date
11	12	13	14	15

Form No. 30

(Prescribed under Schedule VI of Rule 102)

Special Certificate of Fitness

(In respect of persons employed in operation involving use of lead compounds)

Serial No.....

Date

I hereby certify that I have personally examinedson ofresiding at.....who is desirous of being employed as in theand that his age, as nearly as can be ascertained from my examination, is..... years and that he is in my opinion, fit for employment at work involving the use of lead compounds.

His descriptive marks are

Left Thumb
impression of
person
examined

Certifying Surgeon

				be exposed to			
1	2	3	4	5	6	7	8

Medical examination and the results thereof				If declared unfit for work				Signature with date of the Factory Medical Officer/the Certifying surgeon
Date	Signs and symptoms observed during examination	Nature of tests and results thereof	Result Fit/Unfit	Period of temporary withdrawal from that work	Reasons for such withdrawal	Date of declaring him unfit for that work	Date of issuing fitness certificate	
9	10	11	12	13	14	15	16	17

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

Form No. 33

(Prescribed Under Rule 68-T and 102)

Certificate Of Fitness Of Employment In Hazardous Process And Operations.

1. Serial number in the Register of adult Workers:
2. Name of the person examined
3. Father's name
4. Sex
5. Residence
6. Date of birth, if available
7. Name and address of the factory
8. The worker is employed/proposed
 - (a) Hazardous process
 - (b) dangerous operation

I certify that I have, personally examined the above named person whose identification marks

are.....and who is desirous of being employed in above mentioned process/operation and that his/her, age, as nearly as can be ascertained from my examination, is.....years.

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

In my opinion he/she is unfit for employment in the said manufacturing process/operation for the reason.....He/She is referred for further examination to the Certifying Surgeon.

The serial number of previous certificate is.....

Signature of left hand
thumb impression
of the person examined.

Signature of the
Factory Medical Officer

Stamp of Factory
Medical Officer with
Name of the Factory.

I certify that I examined the person mentioned above on (date of examination)	I extend this certificate unfit (if certificate is not extended, the period for which the worker is considered unfit for work is to be mentioned).	Signs and symptoms observed during examination	Signature of the Factory Medical Officer with date

- Notes: -**
1. If declared unfit, reference should be made immediately to the Certifying Surgeon.
 2. Certifying Surgeon should communicate his findings to the occupier within 30 days of the receipt of this reference.

Form No. 34

Deleted

Form No. 35

(Prescribed under Rule 100)

Nomination for payment of wages in lieu of the quantum of leave to which he was entitled in the event of death of worker.

I hereby nominate Shriwho is my..... and resides at.....as to receive the amount of the balance of my wages in lieu of the quantum of leave not availed of, in the event of my death before resuming work.

Dated this..... Day of..... 19.....at.....witness:

1. Signature
Name
Address

2. Signature
Name
Address

Signature or left thumb impression of the
worker Particulars of worker (such as serial
number in the register of adult/child workers,
section or department, etc.)

Date:

Form No. 36¹

(Sec Rule 110-A)

- (a) Name and address of the factory;
- (b) The full name and address of the worker: -
- (c) Date of birth of the worker;
- (d) Date of Joining the service in the factory;
- (e) Recent passport size photograph of the worker.

Signature or left thumb impression of the worker.

Signature of Manager or Authorised Agent.
Date of Issue.

Footnote:

- 1. Ins. by Notfn. d. 15-10-1977, p.77.

Form No. 37

(Prescribed under Rule 12-B)

Register Containing Particulars Of Monitoring Of Working Environment Required Under Section 7-A (2)(E).

- 1. Name of the Department/Plant
- 2. Raw materials, by products and finished products involved in the process.
- 3. Particulars of sampling.

Sr.No	Localation/Operation monitored	Identified contaminant	Sampling instrument used	Number of Samples	Range	Average
1	2	3	4	5	6	7

TWA concentration (As given in Second Schedule)	Reference method	Number workers exposed at the location being monitored	Remarks	Signature person taking samples	Name (in block letters)
8	9	10	11	12	13

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