MIZORAM FACTORIES RULES, 2014

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MIZORAM FACTORIES RULES, 2014

In exercise of the powers conferred by Section 112 of the Factories Act, 1948, (LXIII of 1948), the Governor of Mizoram is pleased to make the following rules, namely:

CHAPTER I

PRELIMINARY

1. Short title extent and commencement

(1) These Rules may be called the Mizoram Factories Rules, 2014.

(2) These Rules shall extend to the whole of Mizoram.

(3) They shall come into force as may be notified by the State Government in the Official Gazette and different rules may apply at different dates.

2. Definitions

In these Rules unless there is anything repugnant in the subject or context:

(a) "Act" means the Factories Act, 1948.

(b) "Appendix' means an appendix appended to these Rules.

(c) "Artificial Humidification" means the introduction of moisture into the air of a room by any artificial means whatsoever, except the unavoidable escape of steams or water vapour into the atmosphere directly due to a manufacturing process.

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

(d) "Belt" includes any driving strap or rope.

(e) “Degrees" (of temperature) means degrees in the Celsius scale.

(f) “District Magistrate" includes such other official as maybe appointed by the State Government in that behalf.

(g) "Fume" includes gas or vapour.

(h) "Health Officer" means the Municipal Health Officer or District Health Officer or such other official as may be appointed by the State Government in that behalf.

(i) "Hygrometer" means an accurate, wet and dry bulb hygrometer conforming to the prescribed conditions as regards constructions and maintenance.

(j) "Inspector" means an officer appointed under Section 8(13-A) of the Act and includes "Chief Inspector".

(k) “Maintained” means maintained in an efficient state, in of efficient working order and in good repair.

(l) “Manager” means the person responsible to the occupier for the working of the factory for the purposes of the Act. “State Government”, means State Government of Mizoram.

(m) “State Government”, means State Government of Mizoram.

(n) Words and expressions not defined but used shall have the same meanings as defined in the Act.

3. Competent Person

(1) The Chief Inspector may recognise any person as a competent person' within such area and for such period as may be specified for the purpose of carrying out test; examinations, inspections and certification for such buildings, dangerous machinery, hoists and lifts, lifting machines and lifting tackles, pressure plant, confined spaces, ventilation system and such other process or plan and equipment as stipulated in the Act and the Rules made thereunder, located in a factory if such a person possesses the qualifications, experience and other requirements as set out in the Schedule annexure to the Rule:

Provided that the Chief Inspector may relax the requirements of qualification in respect of 'Competent person' if such a person is exceptionally experienced and knowledgeable, but not the requirements in respect of the facilities at his command:

Provided further that where it is proposed to recognise a person employed under the Chief Inspector as a competent person concurrence of the State Government shall be taken and such a person after being so recognised, shall not have power of an 'Inspector:

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

(2) The Chief Inspector may recognise an institution of repute, situated in Mizoram having persons possessing qualification and experiences as set out in the Schedule Annexed to sub-rule (1) for the purpose of carrying out tests, examinations, inspections and certification for buildings, dangerous machinery, hoists and lifts, lifting machines, and lifting tackles, pressure plant confined space, ventilation system and such other process or plant and equipment as stipulated in the Act and the Rules made thereunder, as a 'competent person' within such area and for such period as may be specified.

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

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

(i) If he has reason to believe that a competent person,

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

(b) has carried out a test, examination and inspection or has acted in a manner inconsistent with the intents for the purpose of this Act or the Rules made thereunder or has omitted to as required under the Act and the Rules made thereunder, or

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

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

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

4.

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

(i) The site of the factory and immediate surroundings including adjacent buildings and other structures, road, drains, etc.

(ii) The plan, elevation and necessary cross-sections of the factory buildings indicating all relevant details relating to natural lighting. ventilation and means of escape in case of fire, and the position of the plant and machinery, aisles and passageways; and

(iii) Such other particulars as the State Government or the Chief Inspector, as the case may be, may require.

5. Approval of site and plan

(1) No site shall be used for the location of a factory or no building in a factory should he constructed, reconstructed, extended or taken into use us a factory or part of a factory unless previous permission in willing is obtained front the Administrator or the. Chief Inspector of Factories.

Applications for such permission shall be in Form No. 4 and 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) Flans in duplicate drawn to scale showing:

(i) The site of rite factory and immediate surrounding including, adjacent buildings, and other structures roads, drains, etc.

(i) 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 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 requirement of the Act he shall subject to such conditions as he may specify approve them by signing and returning to the applicant one copy of each plan; or he may call for such other particulars as he may require to enable such approval to be given.

6. Application for registration and grant of Licence

The Occupier of every factory shall submit to the Chief Inspector of Factories an application in triplicate in the prescribed Form No. 2 for the registration of the factory and grant of a license.

7. Grant of Licence

(1) A licence for a factory shall be granted by the Chief Inspector of Factories or any other officer appointed under sub-section (2-A) of section 8 of the Act and specially empowered in this behalf by the State Government, in Form No.4 prescribed for the purpose, for a period of one year or five years, as may be requested in the application for registration and grant of licence and on payment of the fees specified in sub-rule (2).

(2) The fees for grant of licence for one to five year shall be as specified in Schedule 1 In case an application for licence has been made for a period of five years, the licence fees shall be five times the fees payable for grant of a licence for one year, as specified in Schedule I.

(3) A licence granted under this rule may, at the request of licensee, be renewed for one year or five years in accordance with the provisions of rule 9.

(4) Every licence as granted or renewed. shall remain in force upto 31st December of the year for or upto which it is renewed.

8. Amendment of Licence

(1) A licence granted under rule 6 may be amended by the Chief Inspector of Factories or any other officer appointed under sob-section (2-A) of section 3 of the Act and specially empowered in this behalf by the State Government.

(2) No licence shall:

(i) Change the name of his factory; or

(ii) Employ persons in excess of the number stated in the licence; or

(iii) Use motive power in excess of the limits of horse power specified in the licence; without getting his licence amended.

(3) A licensee who desires to have his licence amended shall submit it to the Chief Inspector or any other officer appointed under sub-section (3) of Section 8 of the Act and specially empowered in this behalf, with an application stating the nature of the amendment and reasons therefor.

(4) The fee for the amendment of a licence shall be fifty rupees plus the amount (if any) by which the fee that would have been payable if the licence had originally been issued in the amended form exceeds the fee originally paid for the licence.

9. Renewal of licence

(1) A licence may be renewed by the Chief Inspector of Factories or any other officer appointed under sub-section (2-A) of section 8 of the Act and specially empowered in this behalf by the State Government.

(2) Every application for the renewal of a licence shall be made in triplicate, in Form No.5 together with the payment of fees for a period of one year or five years as the case may be, and shall be submitted not less than 30 days before the date on which the licence expires. If the application, complete in all respects, is so made, die premises shall be held to be duly licensed until such date as the Chief Inspector of the Factories or as the case may be, the Officer appointed under sub-section (2-A) of section 8 of the Act and specially empowered in this behalf by the State Government, renews the licence.

(3) The fees for the renewal of licence for one year shall be the same as for the grant thereof. In case an application for renewal has been made for a period of five years, the renewal fees shall be five times the fees payable for renewal of licence for one year, as specified in the Schedule appended below rule 7.

Provided that if the application for renewal, duly completed in all respects, is not received within the time specified in sub-rule (2) of this rule, the licence shall be renewed only on payment of a fee twenty five percent in excess of the fees ordinarily payable for the renewal of a licence for the year or years for which the application has been received late.

10. Transfer of licence

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

(2) Such application shall be made to the Chief Inspector of Factories or any other officer appointed under sub-section (2-A) of section 8 of the Act and specially empowered in the behalf by the State Government who shall, if he approves of the transfer, enter upon the licence under his signature, an endorsement to the effect that the licence has been transferred to the person named.

(3) A fee of fifty rupees shall be charged on each such application.

11. Procedure on death or disability of licensee

If a licensee dies or becomes insolvent, the person carrying on the business of such licensee shall not be liable to any penalty under the Act for exercising the powers granted to the licensee by the license during such time as may reasonably be required to allow him to make an application for the amendment of the licence under Rules 8 in his own name for the unexpired portion of the original licence.

12. Loss of licence

Where a licence granted under these Rules is lost or accidentally destroyed, a duplicate may be granted on payment of a fee of rupees twenty-five.

13. Payment of fees

(1) Every application under these Rules shall be accompanied by a treasury receipt showing that the appropriate fee has been paid under the head of account, affixed by the Chief Inspector of Factories.

(2) If an application for the grant, renewal or amendment of a licence is rejected, the fee is paid shall be refunded to the applicant.

14. Prohibiting Running of a Factory without a valid licence

An occupier shall not use arty premises as a factory or canyon any manufacturing process in a factory unless a licence has been issued in respect of such premises and is in force rot' the-time being:

Provided that if a valid application for grant of licence has been submitted and the required fees has been paid, the premises shall be deemed to be fully licensed until such date as the Chief Inspector of Factories or as the case may be, any other officer appointed under sub-section (2-A) of section 8 of the Factories Act, and specially empowered in this behalf by the

State Government, grants or renews the licence or refuses.in writing with reasons, to grant or renew licence.
Provided further that if the Chief Inspector of Factories or as the case may be, any other officer appointed under sub-section (2-A) of section 8 Of the Act and specially empowered in this behalf, by the State Government fails to grant or renew the licence or fails to refuse to do so, for reasons to be communicated in writing to the applicant, within 60 days from the date of the application, licence shall he deemed to have been granted or renewed.

15. Notice of Occupation

The notice of occupation shall be in Form No 5. Under sub-section (4) of Section 7 of the Act.

16. Notice of change of Manager

The notice of change of Manager shall be in Form No.6.

17. Guidelines Instructions and records

(i) Without prejudices to the general responsibility of the occupier to comply with the provisions of section 7(a) of the Act, the Chief Inspector may, from time. to time, issue guidelines and instructions regarding the general duties of the occupier relating to health, safety and welfare of all workers while they are at work in the factory.
(ii) The occupier shall maintain such records, as may be prescribed by the Chief Inspector, in respect of monitoring of working environment in the factory.

CHAPTER II

THE INSPECTING STAFF

18. Powers of Inspector

An Inspector shall, for the purpose of the execution of the Act, have power to do all or any of the following things, that is to say,

(a) to photograph any worker, to inspect, examine, measure, copy, photograph, sketch or test, as the case may be, any building or room, any plant, machinery, appliance or apparatus, any register or document or anything provided for the purpose of securing the health, safety or welfare of the workers employed in a factory;
(b) in the case of an Inspector who is duly qualified medical practitioner, to carry out such medical examinations as may be necessary for the purposes of his duties under the Act;
(c) to prosecute, conduct or defend before a court any complaint or other proceeding arising under the Act or in discharge of his duties as an Inspector:

Provided that the powers of the District Magistrate and such other public officers as are appointed to be additional Inspectors shall be limited to the inspection of the factories in respect of the following matters, namely:
Cleanliness (Section 11),
Overcrowding (Section 16),
Lighting (Section 17),
Drinking water (Section 18),
Latrines and urinals (Section 19),
Spittoons (Section 20),
Precautions in the case of fire (Section 38),

Welfare (Chapter V),
Working hours of adults (Chapter VI - except the power of exemption under the proviso to Section 62),
Employment of young persons (Chapter VII),
Leave with wages (Chapter VIII) and
Display of notice (Section 108)

19. Qualification of an Inspector

No persons shall be appointed as an Inspector for the purposes of the Act unless he possesses the qualifications hereunder,
(a) he must not be less than 23 years or more than 35 years of age;
(b) he must have,
(i) had a good general education up to Intermediate standard of a recognised university;
(ii) secured a degree, or diploma equivalent to a degree of recognised university, in any branch of Engineering, Technology or Medicine and preferably with practical experience of at least two years in a workshop or a manufacturing concern of good standing and in the case of Medical Inspector an experience of at least two years in a public hospital or factory, medical department or alternatively a diploma in industrial medicine;

(c) where for a particular post, special knowledge to deal with special problems is required, the Government may, in addition to the basic qualifications, prescribe appropriate qualifications for such a post.

Provided that in the case of a person who has been working as Inspector under the Act at the time of commencement of the rules, the Chief Commissioner may, subject to such conditions as he may specify, exempt such persons from the provisions of this rule.
Provided further that the provisions of this rule relating to qualification shall not apply in the case of a person who is already appointed as Inspector of Factories and other Officers of the Labour, Employment and Industrial Training department on regular basis in accordance with provisions of the Recruitment Rules framed under Article 309 of the constitution.

20. Duties of Certifying Surgeon

(1) For the 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 manager of factories situated within the local limits assigned to him.
(2) The Certifying Surgeon shall issue his certificates. The foil and counterfoil shall be filled in and the signature or the left thumb impression of the person in whose name the certificate is granted shall be taken on them. On being satisfied as to the correctness of the entries made therein and of the fitness of the person examined, he shall sign the foil and initial the counterfoil and shall deliver the foil to the person in whose name the certificate is granted. The foil so delivered shall be the certificate of fitness granted under section 69. all counterfoils shall be kept by the Certifying Surgeon for a period of at least 2 years after the issue of the certificate.

(3) 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 out on or other conditions of work prevailing therein; or
(b) by reasons of any change in the manufacturing process carried on, or in the substances used therein, or by reasons of the adoption of any new manufacturing process or of any new substance for use in a manufacturing process, there is a likelihood of injury to the health of 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.
(4) For the purpose of the examination of persons employed in processes covered by the rules relating to dangerous operations, the Certifying Surgeon shall visit the factories within the local limits assigned to him at such intervals as are prescribed by the rules relating to such dangerous operations.

(5) At such visits the Certifying Surgeon shall examine the persons employed in such processes and shall record the results of his examination in a Register known as the Health Register (Form No. 24) which shall be kept by the factory manager and produced to the Certifying Surgeon at each visit.
(6) If the Certifying Surgeon finds as a result of his examination that any person employed in such process is no longer fit for medical reasons to work in that process, he shall suspend such person from working in that process for such time as he may think fit and no person after suspension shall be employed in that process without the written sanction of the Certifying Surgeon in the health register.
(7) The manager of a factory shall afford to the Certifying Surgeon facilities to inspect any process in which any person employed or is likely to be employed.
(8) The manager of a factory shall provide for the purpose of any medical examination which the Certifying Surgeon wishes to conduct at the factory (for his exclusive use on the occasion of an examination) a room which shall be properly cleaned and adequately ventilated and lighted and furnished with a screen, a table (with writing materials) and chairs.

CHAPTER III
EXEMPTION UNDER SUB-SECTION (2) OF SECTION 11
21. Cleanliness of walls and ceilings
(1) Clause (d) of sub-section (1) of section 11 of the Act shall not apply to the class or description of the 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 the said clause (d) shall continue to apply:
(i) in respects of factories or parts of factories specified in Part A of the said Schedule II, to workrooms in which the amount of cubic space allowed for every person employed in the room is less than 500 cubic feet;

(ii) in respects of factories or parts of factories specified in Part B of Schedule II, to workrooms in which the amount of cubic space allowed for every person employed in the room is less than 2,500 cubic feet;
(iii) to engine-houses, fitting-shops, lunchrooms, canteens, shelters, crèches, cloak rooms, rest rooms and wash places; and
(iv) to such parts of walls, sides and tops of passages and staircases as are less than 20 feet 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, 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 factory, unless the Chief Inspector otherwise determines.

22. 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. 10.
23. Disposal of trade wastes and effluents
The arrangements made in every factory for the treatment of wastes and effluents due to the manufacturing processes carried on therein shall be in accordance with those approved by the relevant Water and Air Pollution Boards, appointed under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 and other local authority concerned.
24. 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 in 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 reading indicated consecutively in the schedule III when the wet bulb reading does not exceed the wet bulb reading to the extent indicated in relation to the lower of these two dry bulb readings:

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;
25. 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 500 looms, and one additional hygrometer for every 500 or part of 50 looms in excess of 500.

(b) Other Departments**:** One hygrometer for each room of less than 300,000 cubic feet capacity and one extra hygrometer for each 200.00 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 a position approved by the Inspector, for taking hygrometer shade readings.

26. Exemption from maintenance of hygrometers
When the Inspector is satisfied that the limits of humidity allowed by schedule III to rule 24 are never exceeded, he may, for any department other than the weaving

department, grant exemption from the maintenance of the hygrometer. The Inspector shall record such exemption in writing.
27. Copy of schedule to rule 24 to be affixed near every hygrometer
A legible copy of the schedule III to Rule 24 shall be affixed near each hygrometer.
28. Temperature to be recorded at each hygrometer
At each hygrometer maintained in accordance with Rule 25, correct wet and dry bulb temperatures shall be recorded thrice daily during each working day by competent persons nominated by the manager and approved by the Inspector. The temperature shall be taken between 7 a.m. and 9 a.m., between 11 a.m. and 2 p.m. (but not in the rest interval) and between 4 p.m. and 5.30 p.m. In exceptional circumstances, such additional readings and between such hours, as the Inspector may specify, shall be taken. The temperatures shall be entered in a Humidity Register in the prescribed Form No. 6, maintained in the factory. At the end of each month, the pet sons who have taken the readings shall sign the register and certify the correctness of the entries. The register shall always be available fen inspection by the Inspector.
29. Specifications of hygrometer
(1) Each hygrometer shall comprise two mercurial thermometers of wet bulb and dry bulb of similar construction, and equal in dimensions, scale and divisions of scale. They shall be mounted on a frame with a suitable reservoir containing water.
(2) The wet bulb shall be closely covered with a single layer of muslin, kept 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 3 inches from the dry bulb or less than 1 inch from the surface of the water in the reservoir and the water reservoir shall be below it, or the side of it away from the dry bulb.
(4) The bulb shall be spherical and of suitable dimensions and shall be freely exposed on all sides to the air of the room.
(5) The bores of the stems shall be such that the position of the top of the mercury column shall be readily distinguishable at a distance of 2 feet.
(6) Each thermometer shall be graduated so that accurate readings may be taken between 50 and 120 degrees.
(7) Every degree from 50 degree up to 120 degrees shall be clearly marked by horizontal lines on the stem each fifth and tenth degree shall be marked by longer marks than the intermediate

degrees and the temperature marked opposite each tenth degree, i.e. 50, 60,70, 80, 90, 100, 110 and 120.
(8) The markings as above shall be accurate, that is to say, at no temperature between 50 and 120 degrees shall the indicated readings be in error by more than two-tenths of a degree.
(9) A distinctive number shall be indelibly marked upon the thermometer.

(10) The accuracy of each thermometer shall be certified by the National Physical Laboratory, London, or some competent authority appointed by the Chief Inspector and such certificate shall be attached to the Humidity Register.

30. 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.

31. 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 until it has been re-examined at prescribed and a fresh certificate obtained which certificate shall be kept attached to the Humidity register.
32. 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 half an inch in thickness and distant at least one inch from the bulb of each thermometer.
(2) No hygrometer shall be fixed at a height of more than 5 feet 6 inches from the floor to the top of thermometer stem or in the direct draughts from a fan, window, or ventilating opening.

33. No reading to be taken within 15 minutes of renewal of water
No leading shall be taken for record on any hygrometer within 15 minutes of the renewal of water in the reservoir.
34. How to introduce steam for humidification
In any room in which steam pipe 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 pipe shill not exceed two inches and in the case of pipes are installed after 1st August, 1950, the diameter shall not exceed one inch;
(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 half an inch thickness.
(d) No unrecovered jet from such pipe shall project more than 4 ½ inches beyond the outer surface of any cover.

(e) The steam pressure shall be as low as practicable and shall not exceed 70 lbs. per square inch.

(f) The pipe employed for the introduction of steam into the air in a department shall be effectively covered with such non-conducting material, as may be approved by the Inspector in order to minimize the amount of heat radiated by them into the department.

35. Lighting Application and commencement

(1) Subject as in these rules provided, Rules 35 to 39 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) Rules 35 to 39 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.

36. Lighting of interior parts

(1) The general illumination over those interior parts of a factory where persons are regularly employed shall he not less than 6 foot candles measured in the horizontal plane at a level of 3 feet above the floor:

Provided that in any such parts in which the mounting height of the light source for general illumination necessarily exceeds 25 feet 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 2 foot candle and where work is actually being done the illumination shall be not less than 6 foot 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 0.5 foot-candles at floor level.
(3) The standard specified in this rule shall be without prejudice to the provision of any additional illumination required to render the lighting sufficient and suitable for the nature of the work.

37. Prevention of glare

(1) Where any source of artificial light in the factor is less than 16 feet above floor level, no part of the light source or of the lighting fitting having a brightness greater than 10 candles per square centimetres shall be visible to persons whilst normally employed within 100 feet of the source except where the angle of elevation from the eye to the source or part of the fitting as the case may be exceeds 20 degree.
(2) Any local light, that is to say an artificial light designed to illuminate particularly the area or part of the area of work of a single operative or small group of operatives working near each other, shall be provided with a suitable shade of opaque material to prevent glare or with other effective means by which the light source is completely screened from the eyes of every person

employed at a normal working place, or shall be so placed that no such person is exposed to glare therefrom.

38. 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 requirement of rules 35 to 37 is inappropriate or is not reason-ably practicable, he may, by order in writing, exempt the factory or part thereof, or description of workroom or process from such requirement to such extent and subject to such conditions as he may specify.

39. Exemption from Rule 35

(1) Nothing in Rule 35 shall apply to the parts of factories specified in Part I of the Schedule IV.
(2) Nothing in sub-rule (1) of rule 35 shall apply to the factories or parts of factories respectively specified in Part II of Schedule IV.

40. Quantity of drinking water

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

41. Source of supply

The water provided for drinking shall be supplied:
(a) from a public water supply system, or
(b) from any other source approved in writing by the Health Officer.

42. Means of supply

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

43. Cleanliness of well or reservoir

(1) Drinking water shall not be supplied from any open well or reservoir unless it is constructed, situated, protected and maintained as to be free from the possibility of pollution by chemical or bacterial and extraneous impurities.
(2) Where drinking water is supplied from such well or reservoir the water in it shall be sterilized once a week or more frequently if the Inspector, by written order, so requires, and the date on which sterilizing is carried out shall be recorded:

Provided that this requirement shall not apply to any such well or reservoir if the water therein is filtered and treated to the satisfaction of the Health Officer before it is supplied for consumption.

44. 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 ease to submit to the Inspector a copy of such report as soon as it is received from the Health Officer.

45. Cooling of water

In every factory, wherein more than two hundred and fifty workers are ordinarily employed,
(a) the drinking water supplied to the workers shall form the 16th of April to the 30th September in every year, be cooled by ice or other effective method:

Provided that, if ice is placed in the drinking water, the ice shall be clean and wholesome and shall be obtained only from a source approved in writing by the Health Officer;
(b) the cooled drinking water shall be supplied in every canteen, lunch-room and rest-room and also at conveniently accessible points throughout the factory which fur the purpose of these rules shall be called "Water Centres";
(c) the water centres shall be sheltered from the weather and adequately drained;
(d) the number of water centres to be provided shall be one "centre" for every 150 persons employed at any one lime in the factory.

Provided that in the case of a factory where the number of persons employed exceeds 500, it shall be sufficient if there is one such "centre" as aforesaid for every 150 persons up to the first 500 and one for every 500 persons thereafter.;
(e) every water centre shall be maintained in a clean and orderly condition;
(f) every water centre shall be in charge of a suitable person who shall distribute the water. Such person shall be provided with clean clothes while on duty:

Clause (f) shall not apply to any factory in which suitable mechanically operated drinking water refrigerating units are installed to the satisfaction of the Chief Inspector.

46. 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 seat for every 25 females;
(b) Where males are employed, there shall be at least one latrine scat for every 25 males:

Provided that, where the number of males employed exceeds 100, it shall be sufficient if there is one latrine scat for every 25 males up to the first 100, and one for every 50 thereafter.
In calculating the number of seats required under this rule, any odd number of workers less than 25 or 50, as the case may be, shall be reckoned as 25 or 50.

47. Latrines to conform to public health requirements

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

48. Privacy of latrines

Every latrine shall be under cover and every seat in the latrine shall be so partitioned off as to secure privacy and each partition shall have a proper door and fastenings.

49. Signboards to be displayed

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

50. Urinal accommodation

Urinal accommodation shall be provided for the use of workers and shall not be less than 2 feet in length for every 50 males; provided that, where the number of workers employed exceeds 500, it shall be sufficient if there is one urinal for every 50 males up to the first 500 employed and one for every 100 thereafter.

51. Urinals to conform to Public Health requirements

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

52. Certain latrines and urinals to be connected to sewage 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 100 feet of an existing sewer, be connected with that sewage system.

53. Whitewashing and colour-washing of latrines and urinals

The walls, ceilings and partitions of every latrine and urinal shall be white-washed or colour-washed and the whitewashing or colour-washing shall be repeated at least once in every period of four months. The dates on which the whitewashing or colour washing is carried out shall be entered in the prescribed register (Form No. 10).

Provided that this rule shall not apply to latrines and urinals, the walls, ceiling, or partitions of which are laid in glazed tiles or otherwise finished to provide a smooth polished impervious surface and that they are washed with suitable detergents and disinfectants at least once in every period of four months.

54. Construction and maintenance of drains

All drains carrying waste or spoilage water shall be constructed in masonry or other impermeable materials and shall be regularly flushed and 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 suitable manner to the satisfaction of the Health Officer.

55. Water taps in latrines

(1) Where piped water-supply is available a sufficient number of water taps, conveniently access shall be provided in or near such latrine accommodation.

(2) If pipe water supply is not available sufficient quantity of water shall be kept stored in suitable receptacles near the latrines.

56. Number and location of spittoons

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

57. 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 with a layer of bleaching powder, or

(c) any other type approved by the Chief Inspector.

58. Cleaning of spittoons

The spittoons mentioned in Clause (a) of Rule 57 shall be emptied, cleaned and disinfected at least once every day and the spittoon mentioned in Clause (d) of rule 57 shall be cleaned by scrapping out the top layer of sand as often as necessary or at least once every day.

CHAPTER IV

SAFETY

59. Further safety precautions

(1) Without prejudice to the provisions of sub-section (1) of section 21 in regard to the fencing of machines, the further precautions specified in the schedules V to VIII shall apply to the machines noted in each schedule.

(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 dates as the State Government may, by notification in the Official Gazette, appoint in this behalf.

60. Register prescribed under section 22 (1) of the Act

The Register for recording the names of specially trained adult male workers shall be in Form No. 36.

61. Employment of young persons on dangerous machines

The following machines shall be deemed to be of such dangerous character that young persons shall not work at them unless the provisions of section 23 (1) are complied with:

Power presses other than hydraulic presses;

Milling machines used in the metal trades;

Guillotine machines;

Circular saws;

Platen printing machines;

62. Hoists and lifts

(i) A register shall be maintained to record particulars of examinations of hoists and lifts and shall give particulars as shown in Form No. 11.

(ii) Exemption of certain hoists and lifts. In pursuance of the provisions of sub-section (4) of section 28 of the Act in respect of any class or description of hoist or lift specified in the second column of the schedule IX, and set opposite to that class or description of hoist or lift shall not apply.

63. Rules framed under sub-section (2) of Section 29

(1) No lifting machine and no chain, rope or lifting tackle, except fibre rope or fibre rope sling, shall be taken into use in any factory for the first time in that factory unless it has been tested and all parts having been thoroughly examined by a competent person and a certificate of such a test end examination specifying the safe working loud or loads and signed by the person making the test and the examination, has been obtained and is kept available for inspection.
(2)
(a) Every jib-crane so constructed that the safe working load may be varied by raising or lowering of the jib, shall have attached thereto either on automatic indicator of safe working loads or an automatic jib angle indicator and a table indicating the safe working loads at corresponding inclinations of the jib or corresponding radii of the load.
(b) A table showing the safe working loads of every kind and sine of chain, rope or lifting tackle in use, and, in the case of a multiple sling, the safe working load at different angles of the legs, shall be posted in the store in which the chains, ropes or lifting tackles are kept, and in prominent, positions on the promises, and no chain, rope or lifting tackle not shown in the table shall he used. The foregoing provisions of this clause shall not apply in respect of any lifting tackle if the safe working load there working load at different angles of the legs is plainly marked upon its.
(3) Particulars of register to be maintained under clause (a) (iii) of sub-section (1) of section 29 of the Act shall be:
(i) Name of occupier of factory.
(ii) Address of the factory.
(iii) Distinguishing number of mark, if any, and description sufficient to identify the lifting machine, chain, rope, or the lifting tackle.
(iv) Date when the lifting machine, chain, rope or lifting tackle was first taken into use in the factory.
(v) Date and number of the certificate relating to any test and examination made under sub-rules (1) and (7) together with the name and address of the person when issued the certificate.

(vi) Date of each periodical thorough examination made under clause (a) (iii) of sub-section (1) of Section 29 of the Act and sub-rule (6) and by whom it was carried out.
(vii) Date of annealing or other heat treatment of the chain other lifting tackle made under sub-rule (5) and by it was carried out.
(viii) Particulars of any defects effecting the safe working load found at any such thorough examination or after annealing and the steps taken to remedy such defects.

The register shall be kept readily available for inspection.
(4) All rails or which a travelling crane moves and every track on which the carriage of a transporter or runway moves shall be of proper size and adequate strength and have an even running surface and every such rail or track shall he properly laid, adequately supported and properly maintained.
(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 Chief Inspector be effectively annealed under the supervision of a competent person at the following intervals:

(i) All chains, sling rings hooks, shackles arid swivels used in connection with molten metals or molten stage or when they are made of half inch bar or smaller, once at least in every six months.
(ii) All other chains, rings, honks shackles and swivels in general use once at least in every twelve months.

Provided that chains and lifting tackle not in frequent use shall, subject to the Chief Inspector's approval, be annealed only when necessary. Particular of such annealing shall be entered in a register prescribed under Rule 4.
(6) Nothing in sub-rule 5 shall apply to the following clauses of chains and lifting tackles:
(i) Chains made of malleable cast iron.
(ii) Plate link chains.
(iii) Chains, rings, hooks, shackles and swivels made of steel or any non-ferrous metal.
(iv) Pitched chains working on sprocket or pecketed wheel.
(v) Rings, hooks, shackles and swivels permanently attached to pitched chains, putty blocks or weighing machines.
(vi) Hooks, and swivels having screw threaded parts or ball hearing or other ease hardened parts.
(vii) Socket shackles secured to wire ropes by white metal capping.
(viii) Boardean connections. Such chains and lifting tackle shall be thoroughly examined by a competent person once at least in every twelve months, and particulars entered in the register kept in accordance with rule 4.

(7) All lifting machines, chains, ropes and lifting tackle except a fibre rope or fibre rope sling, which have been lengthened, altered or repaired by welding or otherwise, shall before being again taken into use the adequately retested and re-examined by a competent person and a certificate of such test and examination be obtained and particulars entered in the register kept in accordance with rule 4.
(8) No person under 18 years of age and no person who is not sufficiently competent and reliable shall be employed as driver otherwise or to give signals to driver.

64. Pressure Plant
(1) Every plant of machinery other than the working cylinders of prime movers used in a factory, and operated at a pressure greater than atmospheric pressure, shall be:
(a) of good construction. sound material, adequate strength, and free from any patent defect;
(b) properly maintained in a safe condition;
(c) fitted with:
(i) a suitable valve or other effective device to ensure that the maximum permissible working pressure of the vessel shall not be exceeded;
(ii) a suitable pressure gauge easily visible and designed to show, at all times, the correct interval pressure in lbs, per square inch, and marked with a prominent red mark at the safe working pressure of the vessels;
(iii) a suitable stop valve or valves by which the vessel may be isolated from other vessels or source of supply of pressure;

(iv) a suitable drain cock or valve at the lowest part of the vessel for the discharge of connected liquid.
(d) thoroughly examined by n competent person:
(i) externally, once in every period of six months, to ensure general condition of the vessel and the working its fittings;
(ii) internally, once in every period of twelve months to ensure condition walls, seams, and ties, both inside and outside the vessel, soundness of the parts of the vessel, and the effects of correction. If by reason of construction of the vessel, a thorough internal examination is not possible, this examination may be replaced by a hydraulic test which shall be carried out once every two years.

Provided that the vessels in continuous processes which cannot be frequently opened, the period of internal examination may be extended to four years; and
(iii) hydraulically tested at interval or not more than four year provided that in respect of pressure vessels with thin wall such as sizing cylinders made of copper or any other non-ferrous metal periodic hydraulic test may be dispensed with on the condition that the requirements laid down in clause (2) are fulfilled.

Provided that it shall he sufficient for the purposes of clauses (e) if the safety valve, pressure gauge and stop valve are mounted on a pipe line immediately adjacent to the vessel 6.1 where there is a range of two or Inure similar vessels in a plant served by the same pressure lead, only one set of such mountings need be fitted provided they cannot be isolated.
(2)
(a) In respect of pressure vessels of thin wall such as sizing cylinder made of copper or any other non-ferrous metal the safe working pressure shall hr reduced at the rate of S per cent of the original working pressure for every year of its use after the first five years, and no such cylinder shall be continued to be used for more than twenty years after it was first taken into use.
(b) If no information as the date of construction thickness of wails and safe working pressure is available, the age of the sizing cylinder shill1 be determined by the competent person in consultation with the Chief Inspector from any other particulars available with the manager.
(c) Every new and second hand cylinder of thin walls to which repairs, which may affect its safety, have been carried out, shall be tested before use to at least one and a half times its working pressure.
(3) Every vessel other than part of a prime mover operated at a pressure greater than atmospheric pressure, and not so constructed as to withstand with safety the maximum permissible working pressure at the sources of supply. or the maximum pressure which can be obtained in the pipe connecting the vessel with any other source of supply shall be fitted with a suitable reducing valve or other suitable automatic device to prevent the safe working pressure of the vessel being exceeded.
(4) In cases owing to the nature of the process or the action of the contents of the vessel, a pressure gauge or safety valve or both cannot work reliable a tested and reliable working thermometer, with a sufficient large scale, on which shall be clearly marked the maximum

permissible temperature in the vessel or pyrometers or rupture discs in addition to the pressure gauge and safety valve may be fitted us may be directed by the Chief Inspector.
(5) If during thorough examination. doubt arises as to the ability of vessels to work safety until the next examination provided for in these rules then the competent person shall enter in the register prescribed a reasoned statement, to authorise the vessel for further nark subject to a lowering of pressure or to more frequent inspection or subject to both of these requirements.
(6) No vessel which has undergone alterations or repairs shall be taken into use unless it is thoroughly examined by a competent person.
(7) A report of the result of every examination made shall be completed in the prescribed Form No.12 and signed by the person making the examination, and shall be kept available for perusal by an Inspector at any time while the vessel is in service.

(8) No vessel which has previously been used shall be taken into use in any factory for the first time in the factory until it has been examined and reported in accordance with these rules and no new vessel shall be taken into use unless there has been obtained from the maker of the vessel, or from a competent person, a certificate specifying the maximum permissible working pressure thereof. and stating the nature of the tests to which the vessel and its fittings (if any) have been subjected, and the certificate is kept available for perusal by an Inspector and the vessel is so marked as to enable it to be identified, the vessel to which the certificate relates.
(9) Where the report of any examination under this Rule specifies conditions for securing the safe working of vessel, shall not be used except in accordance with these conditions.
(10) The competent person making the 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 were the maximum permissible working pressure is reduced, or the examination shows that the part cannot continue to be used with safety unless certain repairs and carried out immediately or within a specified time.
(11) The requirements of this rule shall be in addition to and not in derogation the requirements of any other Act, rules or regulations.
(12) Nothing in this rule shall apply to:
(a) any vessels which comes within the scope of the Indian Boiler Act.
(b) metal bottles of cylinders used for the storage or transport of compressed gases or liquified or dissolved gases under pressure.
(13) The Chief Inspector may exempt, subject to such Conditions ns may be considered necessary, all or any of the pressure vessels from all or any of the provisions of this rule if he has reason to believe that the construction or use of those vessels is such that the provisions of relating to inspection are not necessary or it is not practicable to comply with them.

65. Water-sealed Gasholder
(1) The expression 'Gasholder' means a water-scaled gasholder which has a storage capacity of not less than 141.5 cubic meters (5600 cft.)
(2) Every gasholder shall be of adequate material and strength, should construct and shall be properly maintained.
(3) Where there is more than one gasholder in the factory every gasholder shall be marked in a conspicuous position with a distinguishing number of letter.

(4) Every gasholder shall be thoroughly examined externally by a competent person at least once in a period of 12 months.
(5) In the case of gasholder 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 every period of four years, be examined by a competent person by means of electronic or other accurate devices.

Provided that if the Chief Inspector is satisfied that such electronic or other accurate devices are not available, he may permit the cutting of samples from the crown and the sides of the holder.
Provided further that if the above inspection raises a doubt, an internal visual examination shall be made.
(6) All possible steps shall be taken to prevent or minimise in gress of impurities in the gasholder.
(7) No gasholder 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) All sample discuss under sub-rule (5) shall be kept readily available for inspection.
(9) A permanent register duly signed by the occupier or Manager shall be maintained giving the following particulars:
(a) The serial number of the gasholder vide rule (3) and the particulars of manufacture i.e. maker's name, date of manufacture, capacity, number of lifts, pressure, thrown by holder when full of gas.
(b) The dates of inspection carried out as required under sub-rules (4) and 15) and by whom carried out.
(c) The method of inspection used.
(d) Date of painting etc.
(e) Nature of repairs and name of person carrying out repairs, and
(f) Remark.

The results of examinations by a competent person carried out under sub rules (4) and (5) shall be in Form 13.
(10) A copy of the report in Form 13 shall be kept in the register and both the register and the report shall he readily available for inspection.
(11) The Inspector shall inspect the gasholder at least once in a period of 12 months.

66. 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 Schedule X.
(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

exceeds the lowest weight fixed by Schedule X to sub-rule (1) for any of the persons engaged, multiplied by the number of the persons engaged.

67. Protection of eyes

Effective screens or suitable goggles shall be provided for the protection of persons employed in or in the immediate vicinity of the following process:

(a) The processes specified in Schedule XI, being processes which involve risk injury to the eyes from particles or fragments thrown off in the course of the process.
(b) The processes specified in Schedule XII, being processes which involve risk of injury to the eyes by reason of exposure lo excessive light or infrared or ultraviolet radiation.

68. Minimum dimensions of manholes

Every chamber, tank, vat, pipe, flue or other confined space, which persons may have to enter and which may contain dangerous fumes to such an extent as to involve risk of the persons being overcome there shall, unless there is other effective means of egress, be provided with a manhole which may be rectangular, oval or circular in shape and which shall:
(a) in the case of a rectangular or oval shape, be not less than 16 inches long and 12 inches wide;
(b) in the case of a circular shape, be not less than 16 inches in diameter.

69. Exemptions

The requirements of sub-section 4 of Section 37 shall not apply to the following processes carried on in any factory,
(a) The operation of repairing a water-scaled gas-bolder by the electric welding process, subject 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 wrought iron gas mains a service 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 any gas or mixture of gases to which acetylene has been added intentionally:

(iii) The operation shall be carried out by an experienced person or persons and at least 2 persons (including those carrying out the operations) experienced in work on-gas mains and over 18 years of age shall be present during the operation;

(iv) The site of the operation shall be free from any inflammable or explosive gas or vapour;
(v) Where acetylene gas is used as a source of heat in connection with an operation, it shall be compressed and contained in a porous substance in a cylinder; and
(vi) Prior to the application of any flame to the gas main of service, this shall be pierced or chilled 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 150F (close test) and a certificate to this effect shall be obtained from a competent analyst.
(ii) The analyst's certificate shall be kept available for inspection by an Inspector, or by any person employed or working on the ship;
(iii) The welding operation shall be carried out only on the exterior surface of the tank at a place
(a) which is free from oil or oil leakage in inflammable quantities; and
(b) which is not less than one foot below the nearest part of the surface of the oil within the tank; and
(iv) Welding shall be done only by the electric welding and shall be carried out by experienced operatives under the constant supervision of a competent person.

70. Fire Protection
(1) Processes equipment, plant, involving serious explosion and serious fire hazards:
(a) All processes, storages, equipments, plants, etc. involving serious explosion and flash fire hazard shall be located in segregated buildings where the equipment shall be so arranged that on 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 building 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, pnematic conveyors and similar equipment involving a serious fire risk should be provided with flame-arresting or automatic fire extinguishing appliances, or fire resisting dampers electrically interlocked 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, installations or piles of material should be at least 90 cm wide. For

storage piles, the clearance between the ceil rig and the top of the pile should not be less than 2 m.
(2) Access for firefighting:
(a) Building and plants shall be so laid out and roads, passageways etc., so maintained as to permit unobstructed access for fire righting.

(b) Doors and window openings shall be located in suitable positions on all external walls of the building to provide cam: access to the entire area within the building for firefighting.
(3) Protection against lightening: Protection from lightening shall be provided for:
(a) building in which explosive or highly flammable substances manufactured, used. handled or stored;
(b) storage tanks containing oils. paints or other flammable liquids:
(c) rains elevators;
(d) buildings, tall chimneys or stacks where flammable gases, fumes dust or lint are likely to be present;
(e) sub-station building and out-door transformers and snitch yards.
(4) Precautions against ignition: Where 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 maintain as to prevent the danger of their being source of ignition;
(b) Effective measures shall be adopted for prevention of accumulation of static charges to a dangerous extent;
(c) Workers shall wear shoes without iron or steel nails or any other exposed ferrous materials which is likely to cause sparks by friction
(d) Transmission belts with iron fasteners shall not be used;
(e) Smoking, lightening or carrying of matches, lighters or smoking: materials shall be prohibited;
(f) All other precautions, as arc reasonably practicable, shall be taken to prevent initiation of ignition from all other possible sources such as spenflames, 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 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 will 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 by stored near highly flammable substances, ore stored shall have adequate ventilation.
(7) Storage of flammable liquids:
(a) The quantity of flammable liquids in any work room shall be the minimum required for the process or processes carried on in such room. Flammable liquids shall be stored in suitable containers with close fitting covers; Provided that not more than 20 liters of flammable liquids having a flash point of 20°C or less shall be kept or stored in any work room.
(b) Flammable liquids shall be stored in closed containers and limited quantities in well ventilated room 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 in isolated adequately ventilated building of fire resisting construction or in storage tanks. preferably underground and at a distance from any building as required in the petroleum Rules, 1976.
(d) Effective steps shall be taken to prevent leakage of such liquids into basements, sumps or drains and to confine any escaping liquid within safe limits.
(8) Accumulation of flammable dust, gas fume or vapour in air or flammable waste material on the floors:
(a) Effective steps shrill be taken for removal or prevention of the accumulation in the air of 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 shift, and more often, when possible. Such materials shall be placed in suitable metal containers with covers wherever possible.
(9) Fire Exits:
(a) In this rule:
(i) “horizontal exist” 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 distances an occupant has to travel to reach an exit.
(b) An exit may be a doorway corridor, passageway to an external stairway or to a varandah or to an internal stairway segregated from the rest of building by 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 an adjoining building at the same level.
(c) Lifts, escalators and revolving doors shall not be considered as exit for the purpose of this sub-rule.
(d) In every room of a factory exits sufficient to permit safe escape other occupants in ease of fire or other emergency shall be provided which shall be free of any obstruction.
(e) The exits shell be clearly visible and suitably illuminated with suitable arrangement, whatever artificial lightening is to be adopted for this purpose to maintain the required illumination in case of failure of the normal source of electric supply.
(f) The exits shall be marked in a Language understood by the majority of the workers.
(g) Iron rung ladders or spiral staircases shall not be used as exit 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 on upward spread 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) Exists shall be so located that the travel distance to reach at least one of them on the floor shall not exceed 30 meters.
(k) In case of these factories, where high hazard materials are stored or used, the travel distance to the exist shall not exceed 22.5 meters and there shall be at least two ways escape from every room, however shall, except toilet rooms, so located that the paints of access there to are out of or suitably shielded from areas of high hazard.

(l) Wherever more than one exit is required for any room space or floor, exits shall be placed as remote front each other as possible and shalt be arranged to provide direct access in separate directions from any point in the areas served.
(m) The unit of exit width used to measure capacity of any exit shall be 50 cm. A clear width of 25 cm. shall be counted ns 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 lead shall be reckoned on the basis of actual number of occupants within arty floor area or IC square meters 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 an 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 to arrange and located as to provide a suitable means of escape of any per-son employed therein, and in any such room wherein more than 10 persons may be normally present, at least two separate means of exit shalt 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 door ay shall open into an enclosed stairway, horizontal exit on a corridor or passageway providing continuous and protected means of egress.
(t) No exit doorway shell he less than 100 cm in width, doorway 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 a 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 1.5m 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 serves.
(w) The exit doorways shall be openable from the side which they serve without the use of a key.
(x) Exit corridors and passageways shall he 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 meters.
(a) A staircase shall not be arranged round n 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.
(b) Hollow combustible shall not be permitted.
(c) The minimum width of an internal staircase shall be 100 cm.
(d) 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.

(e) The maximum height of a riser shall be 19 cm. end the number of risers shall be limited to 12 per flight.
(f) Hand rails shall be provided with minimum height of 100 cm. and shall be firmly supported.
(g) The use of spiral staircase shall be limited to low occupant load and to a building of height of 9 meters. unless they are connected to platform

such as balconies and terraces to allow escape to pause. A spiral staircase shall be not less than 300 cm. in diameter and have adequate head room.
(h) The width of a horizontal exit shall be same as for the exit door.
(i) The horizontal exit shall be equipped with at least one fire door of self-closing type.
(j) The floor area on the opposite or refuge side of a horizontal exit shall be sufficient to accommodate occupants of the floor areas served allowing not less than 0.3 square meter per person. The refuge area shall be provided with exits adequate to meet the requirements of this sub rule. At least one of the exits shall lend directly to the exterior.
(k) Where there is difference in level between connected areas for horizontal exit, ramps, not more than 1 in 8 slopes shall be provided for this purpose steps shall not be used.
(l) Doors in horizontal exits shall be openable at all times.
(m) Ramps with a slope of not more than I in 10 to substituted for the requirements of staircase. For alt slopes exceeding 1 in 10 and wherever the use in such as to involve danger of slipping, the ramp shall be surfaced with non-slipping material.
(n) 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 firefighting arrangements:
(a) In every factory, there shall be provided and maintained adequate and suitable firefighting equipment fur fighting fires in the early stages, those being referred to as first-aid fire-fighting equipment in this rule.
(b) The types of first-aid fire-fighting equipment to be provided shall be determined by considering the different types of fire risks which are classified as follows:

"Light Hazard”: Occupancies like offices, assembly halls canteens, restroom, ambulances, rooms and the like;
“Ordinary Hazard”: Occupancies like saw mills carpentry shop, shall timber yards, book binding shops engineering workshop and the like;
"Extra Hazard”: Occupancies like large timber yards, godowns storing fibrous materials, flour mills, cotton mills, jute mills, large wood working factories and the like;
(i) "Class A Fire: Fire due to combustible materials such as wood, textiles. paper, rubbish and the like.

(ii) “Class B Fire”: Fire in flammable liquids like oil, petroleum products, solvents. grease, paints etc.
(iii) “Class C fire”: Fire arising out of gaseous substances.

(iv) “Class D Fire”: Fire from reactive chemicals, active metals and the like.
(v) "Class E Fire": Fire involving electrical equipment and machinery and the like.
(c) The Number and types of first-aid fire-fighting equipment to be provided for 'I light hazard occupancy shall be as given in Schedule XIII for ordinary hazard or extra hazard occupancies equipment as given in paragraph 12 shall be provided in addition to that given in the schedule.
(d) The first-aid fire-lighting equipment shall confirm to the relevant Indian standards.
(e) As far as possible the first-aid fire-fighting equipment shall be 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, this equipment shall be places 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 send bucket shall be filled with clean, dry and fine sand.
(h) All other extinguishers shall be charged with appropriately in accordance with the instructions of the manufacturer.
(i) Each first-aid and fire-fighting equipment shall be allotted serial number by which it shall be referred to in the records. The following details shall be painted with white paint on a body of each equipment.
1. Serial number;
2. Date of last refilling; and
3. Date of last inspection.
(j) First-aid firefighting equipment shall be placed on platforms or in cabinets in such away that their bottom is 750 min 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 recharged immediately after discharge. Sufficient refill material shall be kept readily available for this purpose at all times.
(l) All first-aid firefighting equipment shall be subjected to routine maintenance inspection and testing to be carried out properly trained persons. Periodically of the routine maintenance inspection and text shall confirm to the relevant Indian Standards.

(11) Other firefighting arrangements:
(a) In every factory an adequate provision of water supply for firefighting 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 trailor 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 building of the factory;
B = The total area in square meters of all floors and galleries including open spaces in which combustible materials are handed or stored.
C = The total area in square meters of all floors over 15 meters above around Iced; and
D = The total area in square meters of all floors of all buildings other than those of fire resisting construction.

Provided that in areas where the lire risk involved does not require use of water. such areas under B, C or D may, for the purpose of calculation. be halved
Provided further that where the areas under 13, C or Dare protected by permanent automatic fire fighting installations approved by any fire association or fire insurance company such areas may for the purpose of calculation, be halved.
Provided also that where the factory is situated at net more than 3 kilometres front 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 traitor pump shall be provided with equipment as per schedule XIV. Such equipment shall confirm to the relevant Indian Standards.
(c) Traitor pump shall be housed in a separate shed or sheds which Shall be sited closed to a principal source of water supplies in Inc vicinity of the main risks of the factory.
(d) In factories where the area is such as cannot be reached by rum-hauling, of trailor pumps within reasonable time vehicles with towing attachment shall be provided at the scale of one for every four trailor 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 d under clause (a) for at least 100 minutes. At least 50% of this water supply or 450,000 liters whichever is less shall be in the form of static tanks of adequate capacities (not less than 450,000 liters each) distributed round the factory with due regards to the potential fire risks in the factory. Where piped supply is provided, the size of the main shall not be less than 15

centimeters diameter and it shall be capable of supplying a minimum of 4500 liters per minute at a pressure of not less than 7 kilograms per square centimeter.
(f) All trailor 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 firefighting, fire drills, etc.
(a) The first-aid and other fire lighting equipment to be provided as required in sub rule 10 & 11 shall be in charge of a trained responsible person.
(b) Sufficient number of persons shall be trained in the proper handling of firefighting equipment as referred to in clause (a) and their use against the types of fire for which they are intended to ensure that adequate number of persons arc available for firefighting both by means of first-aid firefighting equipment and others. Such persons shall be provided with clothing and equipment including helmets, belts, and boots preferably gumboots. Wherever vehicles with towing attachment are to be provided ns 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) Firefighting drills shall be held as often as necessary and at least once in every period of 2 months.
(13) Automatic sprinklers and fire hydrants shall be in addition and not in substitution of the requirements in sub rule (10) and (11)
(14) If the Chief Inspector is satisfied in respect of any factory or any part of the factory that owing to the exceptional circumstances such as inadequacy of water supply or infrequency of

the manufacturing process or for any other reason, to be recorded in writing, all or any of the requirements of the rules are impracticable or not necessary for the protection or workers, he may by order in writing (which he may at his discretion revoke) exempt such factory or part of the factory from all or any of the provisions of the rules subject to conditions as he such order prescribe.

71. Qualification

(1)

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

(i) Possesses a recognised degree in any branch of engineering or technology and has had practical experience of working in factory in a supervisory capacity for a period of not less than 2 years; or a recognized degree in physics or chemist, and has had practical experience of working in a factory in a supervisory capacity for a period of not less than 5 years; or a recognised diploma in any branch of engineering or technology and has had practical experience of working in a factory in a supervisory capacity for a period of not less than 5 years.

(ii) Possesses a degree or diploma in industrial safety recognised by the I State Government in addition to possessing other qualification laid down in the said sub rule.

(iii) has adequate knowledge of the language spoken by majority of the workers in the region in which the factory where he is to be appointed Is situated.

(b) Notwithstanding the provision contained in clause (a) any person who:

Possesses a recognised degree or diploma in engineering or technology and has had experience of not less than 5 years in a department of the Central or Union Territory, State Government which deals with the administration or the Factories Act 1948; or

Possesses a recognised degree or diploma in engineering or technology and had experience of not less than 5 years, Full time, on training education consultancy, or research in the field of accident prevention in industry or in any institution, shall also be eligible for appointment as a Safety Officer:

Provided that the Chief Inspector may. subject to such conditions as he may specify, grant exemption from the requirements of this sub-rule if in his opinion a suitable person possessing the necessary qualification and experience is hot available for appointment:

Provided further that in the case of a person who has been working as a Safety Office for a period not less than 5 years on the date of commencement of this rule, the Chief Inspector may, subject to such conditions as he may specify, relax all or any of the above said qualifications.

(2) Conditions of Service:

(a) Where the number of Safety Officers to be appointed in a factory as required by a notification in the Official Gazette exceeds one, one of them shall he designated as the Chief Safety Officer and shall have a Status higher than that of the others. The Chief Safety Officer shall be in overall charge of the safety functions as envisaged in sub-rule (3), the other safety Officers working under his control.

(b) The Chief Safety Officer or the Safety Officer in the case of factories where only one Safety Officer is required to be appointed, shall be given the status of a senior executive and he shall

work directly under the control of the Chief Executive of the factory. All other Safety Officers shall be given appropriate status to enable them to discharge their function effectively.
(c) The scale of pay and the allowances to be granted to the Safety Officer including the Chief Safety Officer end the other condition» of their service shall be the same as those of the officers of corresponding status in the factory.;
(d) In the case of dismissal or discharge, a Safety Officer shall have a right to appeal to the State Government whose decision thereon shall be final.

(3) Duties of Safety Officer:
(a) The duties of a Safety Officer shall he to advise and assist the factory management in the fulfilment of its obligations, statutory or otherwise concerning prevention of personal injuries and maintaining a safe working environment. These ditties shall include the following namely:
(i) to advise the concerned departments in planning and organizing measures necessary for the effective control of personal injuries.
(ii) to advise on safety aspects in all job studies, and to any out detailed job safety for the selected jobs;
(iii) to check and evaluate the effectiveness of the action taken or proposed to be taken to prevent personal injuries;
(iv) to provide advice on matters related to carrying out ensuring high quality and availability of personal protective equipment;
(v) to provide advice on matters related to carrying Out plant safety inspection;
(vi) to carry out plant safety inspection in order to observe the physical condition of Work and the work practices and procedures followed by workers and to render advice on measures to be adopted for removing the unsafe actions by worker:
(vii) to investigate selected accident;
(viii) to render advice on matters related to reporting and investigation of industrial accidents and diseases;
(ix) to investigate the cases on industrial disease contracted and dangerous occurrence reported under Rule 96;
(x) to advise on the maintenance of such records as are necessary relating to accidents, dangerous occurrences and industrial diseases;
(xi) to promote setting up of safety committees and act as advisor and catalyst to such committees;
(xii) to organise in association with the concerned departments, campaigns, competitions, contests and other activities which will develop and maintain the interest of workers in establishing and maintaining Safe Conditions of work and procedures; and
(xiii) to design and conduct either independently or in collaboration with the training departments suitable training and educational programmes for the prevention of Personal injuries,
(4) Facilities to be provided to Safety Officers. An occupier of the factory shall provide each Safety Officer with such facilities equipment and information as arc necessary to enable him to discharge his do ties effectively.

(5) Prohibition of performance of other Duties. No Safety Officer shall be required or permitted to do any work which is inconsistent with or detrimental to the performance of the duties prescribed in sub-rule (3).

72. Safety committee

(1) In every factory:
(a) wherein 250 or more workers are ordinarily employed;
(b) which carries on any process or operation declared to be dangerous under section 87 of the Act; or
(c) (c) which carries on hazardous process as defined under section 2 (cb) of the Act, there shall be a safety committee.
(2) The representative of the management of 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 safely 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 worker's representatives of this committee shall be elected by the workers
(4) The tenure of the committee shall be two years.
(5) Safety committee shalt 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 adequately and suitable informed of:
(a) Potential safety and health hazard 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 date on a confidential basis and solely to provide guidance and advice on measure to improve the working environment and the health and safety of the workers.
(7) Function and duties of the safety committee shall include:
(a) assisting and cooperating with the management in achieving the alarms 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 encounter
(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 safely 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 recommendation 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-committee as may be required to assist it.

73. 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 of box which is used for baking drying or 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 substance is likely to be evolved with in the enclosed structure, receptacle. compartment or box or part thereof on account of the 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 resting:

(a) Every oven or drier shall be properly designed on sound engineering practice and be 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 safe 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 kept available for inspection.

(c) All parts of an oven or drier which has undergone any alteration or repair which has effect of modifying any of the design characteristics, shall not he used unless a thorough examination and tests as have been mentioned in clause (b) has been carried out by a competent person and n 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 safe level of dilution.

(b) The safe level of dilution referred to in clause (a) shall be so as to achieve a concentration of the concerned flammable substance in air of not more than 25 per cent of its lower explosive limits.

Provided that a level of concentration in air upto 50% of the lower explosive limits of he concerned Games or substance may be permitted to exist subject to installation and maintenance of an automatic device which:

(i) shows continuously the concentration of the flammable substance 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% or its lower explosive limits; 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% of its lower explosive limits is provided to the oven or drier and maintained in working condition.
(c) On 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 leas than what is referred to in clause (b).
(e) Exhaust ducts of safety ventilation systems should be as designed and placed That their ducts discharge the mixture of air and flammable substance away from the work-rooms and not near windows or doors or other openings from where the mixture could re-enter the workroom.
(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 far: or fans through all parts of the oven or drier so as to ensure that there are no locations where the flammable substance can accumulate in the air or become pocketed to any dangerous degree.
(g) Throttling dampers in any safety ventilation system should be so designed by cutting away - a portion of the damper otherwise that the system will handle at least the minimum ventilation rate required for safety when they are set in their maximum throttling position
(6) Explosion panels:
(a) Every oven or drier baring an internal total space of not less the half cubic meter shall be provided with suitable 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 recess doors which are provided with suitable arrangements for their release in case of an explosion shall be not less than 2200 square centimeter for every one cubic

meter of volume of the oven or drier. The design of the explosion panels and doors as above said shall be such as to secure their complete release under an interval pressure of 0.25 kg. per square centimeter.
(b) The explosion releasing panels shall as far as practicable be situated at the roof of the oven or drier or at those portions of the walls where persons do not remain in connection with operation of the oven or drier.
(7) Interlocking arrangements:
(a) In each oven or drier different inter-locking arrangements shall be provided and maintained to ensure that:
(i) All ventilating fans and circulating fans whose failure would adversely affect the ventilation rate of flow pattern are in operation before any mechanical conveyor that may be provided for feeding the articles or substance to be processed in the oven or drier is pat into operation;
(ii) Failure of any of the ventilation or circulating fans will automatically stop any conveyor as referred to in clause (1) 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 all fired ovens and in the case of electrically heated ovens switch off the electrical supply to the heaters;
(iii) The above said mechanical conveyor is sin in operation before the above said shut off valve can be energized; and
(iv) The failure of the above said conveyor will automatically close the above said shin of valve 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 pre-ventilation: Every oven or drier heated by oil, gas steam or electricity shall be provided with an efficient arrangement for automatic pre-ventilation 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 a fact purging of the oven or drier of any mixture of air and a flammable substance before the heating system can be achieved and before the conveyor can be placed in position.
(9) Temperature control: Every oven or drier shall be provided with an automatic arrangement to ensure that the temperature within does not exceed a safe upper present limit to be - decided in respect of the particular processing being carried on.
(10) Multistage Processes: Wherever materials are to be processed in oven or driers in successive operations, suitable arrangement should be provided to ensure that the operating temperatures necessary for safe operation at each steps are maintained within the design limits.
(11) Combustible substances not to drip on electrical heaters or burners fame: Effective arrangements shall be provided in every oven or drier to prevent dripping of combustible substances in electric heaters or bunter flame used for heating.
(12) Periodical examination, testing and maintenance:

(a) All parts of every oven and drier shall be properly maintained and thoroughly examined and the various controls as maintained 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 (al shall be entered and every entry made shall be signed by the person making the tests.
(13) Training of operators: No person shall be assigned any task connected with operation of any oven or drier unless he has completed 18 years of age, and he is properly trained.
(14) Polymerising machines:
(a) Printed fabric shall be thoroughly dried by passing them over drying can or through but flue or other equally effective means before the same is allowed to pass through polymerising machines.
(b) Infrared may heaters of polymerizing machines shall be cut off while running the prints.

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

(2) Suitable arrangements shalt 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 debrator tank. This tank shall be located outside the' where the heater is installed.
(6) Every heater shall be provided with a photo resistor 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 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 hall also be provided with the following safety devices;
(a) Level control in the expansion tank;
(b) Temperature control of the thermic fluid;

(c) Differential pressure switch on the outlet line of the heater tubes; and
(d) Temperature control device for the fuel oil supply to the burner.
(10) All devices mentioned in paragraph 9 shall have interlocking arrangement with burner so that in case of any pre-determined limits being crossed the supply of fuel and air to burner shall automatically visual alarms.
(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 shifting with low pressure steam or nitrogen for putting out the fire.
(13) Electric panel for the heater shall be located near the. heater but not so close as to be exposed to s Foiling or leaking oil.
(14) The heater shall be located in a place segregated from other manufacturing activities
(15) Explosion vent shall be as installed that release takes place at safe location.
(16) The heater coil shall be subjected to pressure teat by competent person once at least in every 12 months. The test pressure shall not be less than twice the operating pressure.
(17) If repair are carried out to the coil, it shall be tested before taking it into use.
(18) The thermic fluid shall conform to the specification prescribed by the manufacturers and shall be tested by competent person for suitability at least once in every three month period. Such test shall include test for acidity, suspended matter, as contents, viscosity and flash point.
(19) Closing of the internal surface of the heater or soot and check up of refractory surface on the inside shall be carried out every month or as often as required depending upon working conditions. The coils shall be removed and surface of the coils cleaned thoroughly once at least in a period of six months. The bunter, nozzles, oil filters and pumps shall be cleaned once a week during the period of use.
(20) A separate register containing the following information shall be maintained:
(a) weekly checks carried out confirming the effectiveness of the interlock;

(b) weekly checks confirming that all accessories arc in good state of repairs; and
(c) information recording fuel oil temperature, pressure, thermic fluid inlet/ outlet pressure and temperature, fuel gas temperature, recorded at hourly interval.
(21) The heater when in operation shall always be kept in-charge of a trained operator.

75. Site Appraisal Committee
(1) Constitution: The following provisions shall govern the functioning of the site appraisal committee, hereinafter, be referred to as the "committee" in these rules:

(a) The state government may constitute a site appraisal committee and reconstitute the committee and when necessary;
(b) The state government may appoint a senior official of the factories Inspectorate preferably with qualification in Chemical Engineering to be the Secretary of the committee;
(c) The state government may appoint tile following as members of the committee:
(i) A representative of the Fire Service Organisation of the state Government;
(ii) A representative of the State Department of Industries;
(2) No member unless required to do so by a court of law shall disclose otherwise than in connection with the purpose of the Act, at any time any information relating to manufacturing or commercial business or any working process which may come to his knowledge during his tenure as a member on this committee.
(3) Application for Appraisal of Sites:
(a) Application for appraisal of sites in respect of the factories covered under section 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 the form annexed to this rule. The committee may dispense with furnishing information on any particular item in the Application form if it considers the same to be relevant to the application under consideration.
(4) Function of the committee-
(a) The Secretary shall arrange to register the application received for appraisal of site in a separate register and acknowledge the same within a period of 7 days.
(b) The Secretary shall fix up mooting in such a manner that all the applications received and registered arc referred to the committee within a period of one month from the date of their receipt.
(c) The committee may adopt a procedure for its working keeping in view of the need for expeditious disposal of applications.
(d) The committee shall examine the applications for appraisal of a site with reference to the prohibitions and restrictions on the location of industry and the carrying on of processes and operations in different area as per the provisions of rule 5 of the Environment (Protection) Act, 1986.
(e) The committee may call for documents, examine, experts, inspect of the site, if necessary and take other steps fur formulating Its views in regard to the suitability of the site.
(f) Wherever the proposed site require clearance by the Ministry of Industry the application for site appraisal will be considered by the site appraisal committee only after such clearance has been received.

FORMAT OF APPLICATION TO THE SITE APPRAISAL COMMITTEE

1. Name and address of the applicant.
2. Site ownership Date.
3. Revenue details of site such as survey no., plot no., etc.
4. Whether the site is classified as forest and if so, whether approval of the Central Government under section 5 of the Indian Forests Act, 1927 has been taken.
5. Whether the proposed site attracts the provisions of section 3(2) (V) of the E.P. ACT, 1986, if so, the nature of the restrictions.
6. Local authority under whose jurisdiction the site is located.
7. Site plan.
8. Site plan with clear identification of boundaries and total area proposed to be occupied and showing the following details near by the proposed site.

(a) Historical monument, if any, in the vicinity.
(b) Names of neighbouring manufacturing units and human habits, educational and training institutions, petrol installations, storages of LPG, and other hazardous substance in the vicinity and their distance 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 station and police stations and their distances.
(e) High tension electrical transmission lines, pipe lines for water, oil gas or sewerage, railway line, roads, stations, jattice and other similar installations.

9. Details of roll conditions and depth at which hard strata obtained.
10. Contour map of the area showing nearby hillocks and difference in levels.
11. Plot plan of the factory showing the entry and exit points, reads within water drains etc.
12. Project Report.
13. A summary of the salient features of the project.
14. Status of the organisation (Government, semi-government, public or private etc.)
15. Maximum number of persons likely to be working in the factory.
16. Maximum amount of power and water requirements and sources of their supply.
17. Block diagram of the buildings and installations in the proposed supply.
18. Details of housing colony, hospital, school and other infrastructural facilities proposed.
19. Organisation structure of the proposed manufacturing unit/ factory

20. Organisation diagram of

(i) Proposed enterprise in general
(ii) Health safety and Environment protection departments and there, linkage to operation and technical departments

21. Proposed Health and safety policy.
22. Area allocated for treatment of water and effluent.
23. Percentage outlay on safety, health and environment protection measures.
24. Meteorological date relating to the site.
25. Average minimum and maximum of

(i) Temperature;
(ii) Humidity

(iii) Wind velocities

during the previous ten years.
26. Seasonal variations of wind direction.
27. Highest water level reached during the floods in the area recorded so far.
28. Lightening and seismic data of the area.
29. Communication links.
30. Availability of telephone/telex/wireless and other communication facilities for outside communication.
31. Internal communication facilities proposed.
32. Manufacturing process information.
33. Process flow diagram.
34. Brief write up on process and technology.
35. Critical process parameters such as pressure build up, temperature wise and run-away reactions.
36. Other external effects critical to the process having safety implications, such as engress of moisture or water contact with incompatible substances, sudden power failure.

Highlights of the build in safety / pollution control devices or measure / incorporated in the manufacturing technology.
37. Information of hazardous materials.
38. Raw materials, intermediates products and by-products and their quantities (enclose material safety data sheet in respect of each hazardous substances.
39. Main and intermediate storage proposed for raw materials/ intermediates/Products/by-products (maximum quantities to be stored at any time).

40. Transportation methods to be used for materials inflow and outflow, their quantities and likely routes to be followed.
41. Safety measures proposed for: handling of materials.
(i) internal and external transportation, and
(ii) disposal (packing and forwarding of finished products).
42. Information on disposal/ disposal of wastes and pollutants.
43. Major pollutants (gas, liquid, solid) their characteristics and quantities (average and at peak-loads).
44. Quality and quantity of solid wastes generated, method of their treatment and disposal.
45. Air water and soil pollution problems anticipated and the proposed measures to control the same including treatment and disposal of effluents.
46. Process hazards information.
47. Enclose a copy of the report on environmental impact assessment.
48. Enclose a copy of the report on Risk Assessment study.
49. Published (open or classified) reports, if any on accident situations/ occupational health hazards or similar plants elsewhere (within or outside the country).
50. Information of proposed safety and occupational Health Measures.

51. Details of fire fighting facilities and minimum quantity of water and or other fire lighting measures needed to meet the emergencies.
52. Details of in house medical facilities proposed.
53. Information on emergence preparedness.
54. Onsite emergency plan.
55. Proposed arrangements if any for mutual aid scheme with the group of neighbouring factories.
56. Any other relevant information.

I certify that the information furnished above is correct to best of my knowledge and nothing of importance has been concealed while furnishing it.

76. Health and Safety

(1) Policy: The occupier of every factory except as provided for in sub-rule (2) shall prepare written statement of his policy in respect of health and a safety of workers of work.
(2) All factories:
(a) Covered under section 2(m) (1) but employing less than 50 workers;
(b) Covered under section 2(m) (ii) but employing less than 100 workers are exempted from requirements of sub-rule (1).

Provided that they are not covered under the first schedule under section 2(cb) of the Act or carrying out processes or operations declared to be dangerous under section 87 of the Act.
(3) Notwithstanding anything contained in sub-rule (2), the Chief Inspector may require the occupiers of any of the factories or class or description of factories to comply with the requirements of sub-rule (1), if, in his opinion, it is expedient to do so.
(4) The Health and Safety Policy should contain or deal with:
(a) Declare intension and commitment of the top management to health, safety and environment and compliance with all the relevant statutory requirement;
(b) Organizational setup to carry out the declared policy clearly assigning the responsibility at different levels; and
(c) Arrangements for marking the policy effective.
(5) In particular, the policy should specify the following:
(a) Arrangement for involving the workers;
(b) Intention of taking into account the health and safety performance of individual at different levels while considering their career advancement;
(c) Fixing the responsibility of the contractors, sub-contractors, transported and other agencies entering the premises;
(d) Providing a resume of health and safety performance of the factory in its Annual report;
(e) Relevant techniques and methods, such as safety audits and risk assessment for periodical assessment of the status on health, safety and environment and taking all the remedial measures;
(f) Stating its intentions to integrate health and safety, in all decisions including these dealing with purchase of plants, equipment, machinery and material as well as selection and placement of personnel;

(g) Arrangements for informing, educating and training and retraining its own employees at different levels and the public, wherever required
(6) A copy of the declared Health and Safety policy signed by the occupier shall be made available to the Inspector having jurisdiction over the factory and to the Chief Inspector;
(7) The policy shall be made widely known by-
(a) Making copies available to all workers including contract workers, apprentices transport workers, suppliers etc.
(b) Displaying copies of the policy at conspicuous places; and
(c) Any other means of communications ma language understood by majority of workers.

(8) The occupier shall revise the safety policy as often as maybe 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 substances or articles are introduced in the manufacturing process having implications on health and safety persons exposed to such substances.

77. Collection and development and dissemination of information
(1) The occupier of every factory carrying on a hazardous process shall arrange to obtain or develop information in the form of Safety Data Sheet in respect of every hazardous substances or material handled of the manufacture, transportation and storage in the factory. It shall be accessible upon request to a worker for reference.
(a) Every such Safety Data Sheet shall include the following information:
(i) The identity used in the label;
(ii) Hazardous ingredients of the hazardous substances;
(iii) Physical and chemical characteristics of the hazardous substance;
(iv) The physical hazards of the hazardous substance, including the potential for fire, explosion and reactivity;
(v) The health hazard of the hazardous substance, including signs and symptoms of exposure and any medical conditions which are generally recognised as, being aggravated by exposure to the substance;
(vi) The primary route(s) of entry;
(vii) The permissible limits of exposure prescribed in the Second Schedule under section 41-F of the Act, and in respect of a Chemical not covered by the said schedule. any exposure limit or recommended by the manufactures importer or occupier;
(viii) Any generally applicable precautions for safe handling and use of the hazardous substances, which are known, including appropriate hygienic practices protective measures during repairs and maintenance of contaminated equipment, procedures for clean up of spills and leaks;
(ix) Any generally applicable control measures, such as appropriate engineering controls work practices or use of personal protective equipment;
(x) Emergency and first-aid procedures;
(xi) The date of preparation of the Safety Data Sheet, or the last change to it; and

(xii) The name, address and telephone number of the manufacturers, importer, occupier or other responsible party preparing or distributing the Safety Data Sheet who can provide additional information on the

hazardous substances and appropriate emergency procedures, if necessary.
(b) The occupier while obtaining or developing a Safety Data Sheet in respect of a hazardous substances shall ensure that the information recorded accurately reflects the scientific evidence used in making the hazard determination. If the becomes of a substance, or ways to project against the hazards, this new information shall be added to the Safety Data Sheet as soon as practicable.
(c) An example of such Safety Data Sheet is given in schedule XV to this Rule.
(2) Every container of a hazardous substance shall be clearly labelled or marked to identify;
(a) The content of the containers;
(b) The name and address of the manufacturer or importer of the hazardous substances;
(c) The physical and health hazards; and
(d) recommended personal protective equipment needed to work safety to the hazardous substances.

Information contained in this Safety Data Sheet is believed to be reliable but no representation; guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. It is upto the manufacturer/seller to ensure that the information contained in the Safety Data Sheet is relevant to the product manufactured/ handled or sold by him as the case may be. The Government makes no warranties expressed or implied in respect to the adequacy of this document for any particular purpose.

Acronyms and Glossary of terms:

Gas: Chemical Abstract Service Registration Number.
Un Number: United Nations Number.
HAZCHEM Code: Emergency Action Code (EAC) Allocated by the Joint Committee of Fire Brigade Operations UK.
TDG Flammability: Transport of Dangerous Goods: Flammability Classification by United Nations.
NEPA: National Fire Association, USA.
LD50 and LC50 represent the dose in mg/hg of body weight and the concentration in mg/1 for 4 hours having lethal effect on 50% of the animals (rats) treated.
PEL: Permissible Exposure Limit as laid down in the statutes.
TLV: Threshold Limit Value as laid down by the American conference of Government Industrial hygienists (AC0111), 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 applicable or available, N/APP or N/Av sign may be used.

78. Disclosure of information to workers

(1) The Occupier of a factory carrying on a hazardous process shall supply to all workers the following information in relation to handling of hazardous materials or substances in the manufacture transportation, storage and other processes
(a) Requirements of Sections 41-B, 41-C and 4I-H of the Act:
(b) A list of hazardous processes carried on in the factory;
(c) Location and availability of all Safety Data Sheets as per Rule 61-F;
(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 markings used on the containers of hazardous substances as provided under Rule 61;
(i) Signs and symptoms likely to be manifested on exposure to hazardous substances and to whom to report;
(j) Measures to be taken by the workers in case of any spillage or leakage of a hazardous substance;
(k) Role of workers vis-a-vis the emergency plan of the factory, in particular the evacuation procedures; and
(2) Any other information considered necessary by the occupier to ensure safety and health of workers.
(3) The information required by sub-rule (1) shall be compiled and made known to workers individually through supply of booklets or leaflets and display of cautionary notices at the work places.
(4) The booklets, leaflets and the cautionary notices displayed in the factory shall be in the language understood by the majority of the workers, and also explain to them.
(5) The Chief Inspector may direct the Occupier to supply further information to the workers as deemed necessary.

79. Disclosure of information to the Chief Inspector
(1) The occupier of every factory carrying on “Hazardous Process” shall, furnish in writing to the Chief Inspector, a copy of all the information furnished to the workers.
(2) A copy of compilation of Safety Data Sheet in respect of hazardous substances used, produced or stored in the factory shall be furnished to the Chief Inspector and the local inspector.
(3) The occupier shall also furnish any other information asked for by the Chief Inspector from time to time for the purpose of the Act and Rules made thereunder.

80. Information on industrial wastes
(1) The information furnished under Rule 78 and 79 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 waste and arrangements for their final disposal.

(2) It shall also include information on the quality and quantity of gaseous waste discharged through the stocks or other openings, and arrangements such as provision of scrubbers, cyclones separators, electrostatic precipitators or similar such arrangements made for controlling pollution of the environment.
(3) The occupier shall also furnish the information prescribed in the sub-rules (1) and (2) to the State Pollution Control Board. -

81. 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 Rule 78 and 79 to the workers and the Chief Inspector.

82. Confidentiality of Information
The occupier of a factor), carrying on 'hazardous process' shall disclose all information needed for protecting safety and health of the workers to:
(a) his workers; and'
(b) Chief inspector, as required under Rules 78 & 79, if the occupier is of the opinion that the disclosure of details regarding the process and formulations will adversely affect 'his business interests, he may make a representation to the Chief Inspector stating the reasons for withholding such information. The Chief Inspector shall give an opportunity to the occupier of being heard and pass an order on representation.

An occupier aggrieved by an order of Chief Inspector may prefer an appeal before the State Government within a period of 30 days. The State Government shalt give an opportunity to the occupier of being heard and pass an order. The order of the state Government shall be final.

83. Medical Examination
(1) Workers employed in a 'hazardous process' shall be medically examined by a qualified medical practitioner herein after 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 and in case wherein the opinion of the Factory Medical Officer is necessary to do so at a shorter interval in respect of any worker;
(c) The details of pre-employment and periodical medical examinations carried out as aforesaid shall be recorded in the Health Register in Form No.24.
(2) No person shall be employed for the first time without a certificate of Fitness granted by the Factory Medical Officer, If the Factory Medical Officer declared a person unfit for being employed in any process covered under sub-rule (i), 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 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 inquired to be taken away from the process for health protection, he will direct the occupier accordingly, who shall not employ the said worker in the same process. However, the worker so taken away shall be provided with alternate placement unless he is in the opinion of the Certifying Surgeon fully incapacitated in which case the worker affected shall be suitably rehabilitated.
(4) Certifying Surgeon on his own motion or 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 alter obtaining the Fitness Certificate from the Certifying Surgeon and after making entries 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 medical examination.

84. Occupational Health Centres
(1) In respect of any factory carrying on 'hazardous process' there shall be provided and maintained in good order an occupational Health Centre with the services and facilities as per 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 stipulated in rule 82 and render medical assistance during an emergency.
(ii) a minimum of 5 persons trained in first aid procedure amongst whom at least one shall always be available during the working period;
(iii) a fully equipped first aid box.
(b) For factories employing 51 to 200 workers;
(i) An occupational Health Centre having a room with a minimum floor area of 15 sq.m. with floors and walls made of smooth and impervious surface and with adequate illumination and ventilation as well as equipment as per the schedule annexed to this Rule;
(ii) apart time Factory Medical Officer shall be in overall charge of the Centre who shall visit the factory least twice in a week. whose services shall be readily available during medical emergencies;
(iii) one qualified and trained dresser-cum-compounder on duty throughout the working period;
(iv) a fully equipped first aid box in all the departments;
(c) For factories employing above 200 workers:
(i) one full time Factory Medical Officer for factories employing upto 500 workers and one mere 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.m. with floor and walls made. of smooth and impervious surface and adequate illumination and ventilation as well as equipment as per the schedule annexed to this Rule;

(iii) there shall be one nurse one dresser-cum-compounder and one sweeper-cum-ward boy throughout the working period;
(iv) the Occupational Health Centre shall be suitably equipped manage medical emergencies.
(2) The Factory Medical Officer required to be appointed under sub rule (1) shall have qualifications included in the Schedule to the Indian Medical Degrees Act of 1916 or in the Schedule to the Indian Medical Council Act, 1956 and possess et certificate of Training in Industrial Health of minimum three months duration recognised by the State Government.

Provided that:
(i) a person possessing a Diploma in Industrial Health or equivalent shall not be required to possess the certificate of training as aforesaid:
(ii) the Chief Inspector may, subject to such conditions as he may specify, grant exemption from the requirement of this sub-rule, if in his, opinion a suitable person possessing the necessary qualification is not available for appointment;
(iii) in case of a person who has been working as a Factory Medical Officer, for a period of not less than 3 years on the date of commencement of this rule, the Chief Inspector may, subject to the condition that the said person shall obtain the aforesaid certificate of training within a period of 3 years relax the qualification.
(3) The syllabus of the course leading to the above certificate and the organisations conducting the course shall be approved by the Directorate General of Factory Advice Services and Labour Institutes or the State Government in accordance with the guidelines issued by the DGF ASLI.
(4) Within one month of the appointment of a Factory Medical Officer, the occupier of the Factory shall furnish to the Chief Inspector the following particulars:
(a) Name and address of the Factory Medical Officer;
(b) Qualification;
(c) Experience, if any, and
(d) The sub-rule under which appointed.

85. Ambulance Van
(1) In any factory carrying on Hazardous Process, there shall be provided and maintained in good condition, a suitably constructed ambulance van equipped with item as per sub-rule (2) and manned by a full-time Driver-cum-mechanic and a Helper trained in first-aid, for the purpose of transportation of serious cases of accidents or sickness. The ambulance van shall not be used for any purpose other than the purpose stipulated herein and will normally he stationed at or near to the Occupational Health Centre;

Provided that a factory employing less than 200 workers may make arrangements for procuring such facility at short notice from a nearby hospital or other places, to meet any emergency.
(2) The ambulance should have the following equipments:
(a) General

-A wheeled stretched with folding and adjusting devices, with the head of the stretcher capable of being lifted upward;
-Fixed suction unit with equipment;

-Fixed oxygen supply with equipment;
-Pillow with case; sheets; Blanket; towels;

-Emesis Bag; Bed pan; Urinal; Glass.
(b) Safety equipment

-Flares with life of 30 minutes; flood lights;
-Flash lights; Fire extinguisher dry power type;
-Insulated gauntlets;
(c) Emergency Care equipment
(i) Resuscitation

-Portable suction unit; Portable oxygen units;
-Bag-valve-mask, band operated artificial ventilation unit;
-Airways, Mouth gaps; Trachestomy adaptors;
-Short spine board; I. V. Fluids with administration unit;
-B.P. Manometer; Cimn; Stethoscope
(ii) Immobilization

-Long and short padded boards; Wire ladder splints;
-Triangular bandage; long and short spine boards;
(iii) Dressings,

-Guaze pads 9" X 4"; Universal dressing 10' X 36"
-7 Rool of aluminium fails; soft roll& bandage 6" X 5 yards; All besive tape in 3" roll;
-Safety pins; -Bandage gheeing;
-Burn sheet
(iv) Poisoning

-Syrup of Ipecas; Activated Charcoal prepacked in dozes; snaky, bite kit; Drinking water.
(v) Emergency Medicines

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

86. Decontamination facilities

In every factory, carrying out 'Hazardous Process', the following provisions shall be made to meet emergency;
(a) Fully equipped first aid box;
(b) Readily accessible means of water for washing by workers as well as for drenching the clothing of workers who have been contaminated with hazardous and corrosive substance; and such means shall be as per the scale shown in the. Table below:

Table

No. of Persons employed at any time		No. of drenching showers
(i)	Upto 50 workers	2
(ii)	Between 51 to 200 workers	2+1 for every additional 150 or part thereof
(iii)	Between 201 to 500 workers	5+1 for every additional 100 or part thereof
(iv)	501 workers and above	2+1 for every additional 200 or part thereof

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

87. Making available Health Records to workers

(1) The occupier of every factory carrying out a 'hazardous process' shall make accessible the health records including the record of worker's exposure to hazardous process or, as the case maybe, the medical records of any worker for his perusal under the following conditions:
(a) Once in every six. months or immediately after the medical examination whichever is earlier;
(b) If the factory Medical Officer or the Certifying Surgeon as the case may be, is of the opinion that the workers 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 anyone of the following authorities as direct

-The Chief Inspector of Factories;
-The Health Authority of the Control or State Government; -Commissioner of Workman's Compensation;
-The Director General, Employees. State Insurance Corporation (Medical Benefits) and:
-The Director General, Factory Advice Services and Labour Institutes.
(2) A copy of the up-to-date health records including the record of worker's exposure to hazardous process or, as the case may the medical records shall he supplied to the workers on receipt of on application from him. X-ray plates and other medical diagnostic reports may also be made available for reference to his medical practitioner.

88. Qualifications etc. of Supervisors

(1) All persons who are required to supervise the handling of hazardous substance 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 organizations conducting the training shall be approved by the DGFASLI or the State Government in accordance with the guidelines issued by the DGFASLI.

89. Issue of guidelines

For the purpose of compliance with the requirements of sub-section (1), (4) and (7) of section 41-B or 41-C of the Act, the Chief Inspector may, if deemed necessary, issue guidelines from time to time to the occupiers of Factories carrying on 'Hazardous Process. Such guidelines may be based on National Standards, Codes of Practice, or recommendations of International Bodies such as ILO and WHO.

90. Collection, development and dissemination of information for Major Accident Hazard Installation

(1) This rule shall apply to an industrial activity or isolated storage in which a hazardous chemical which satisfies any of the criteria laid down in Part I of Schedule XVII.

(2) An occupier of an industrial activity or isolated storage in terms of sub-rule (I) of this rule shall arrange to obtain or develop information in the form of Safety Data Sheet as specified in Schedule appended to Rule 77. 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 appended to Rule 77 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 ease, any significant information regarding a hazard of chemical is available, it shall be added to the Safety Data Sheet as specified in Schedule XV, as soon as practicable.

(4) Every container of a hazardous chemical shall be clearly labelled or marked to identify:

(a) The contents of the container;

(b) The name and address of the manufacturer Dr importer of the hazardous chemical; and

(c) The physical, chemical and toxicological data of the hazardous chemicals

(5) In terms of sub-rule (4) of this rule where it is impractical to label a chemical in view of the size of the container or the nature of the package, provision should be made for other effective means like lagging or accompanying documents.

91. Duties of Inspector

(a) The Inspector shall-inspect the industrial activity or isolated storage at least once in a calendar year,

(b) send annually status report on the compliance with the Rules by occupiers the Ministry of Environment and Factory through the Directorate General Advice Service and Labour institutes and Ministry of Labour, Government of India,

(c) enforce direction and procedure in respect of industrial activities or isolated storage covered under the Factories Act, 1948 and in respect of pipe lines up to a distance of five hundred meters from the outside of the perimeter of the factory, regarding-

(i) notification of the major accidents as per rules 92 (1) and 92 (2);

(ii) notification of sites as per rules 94 and 95;

(iii) Safety Reports and Safety Audits as per rules 97 to 99;

(iv) notification of sites as per rules 94 and 95;

(v) Safety Reports and Safety Audits as per rules 97 to 99;

(vi) Preparation of 'on-site Emergency Plans" as per rule 100 and involvement in the preparation of "Off-site Emergency Plans" in consultation with District Collector or District Emergency Authority.

92. General responsibility of the occupier

(1)

(a) An industrial activity in which a hazardous chemical, which satisfies any of the criteria laid down in Part I of Schedule XVII or is listed in Column 2 of Pan If thereof, is or may be involved; and

(b) isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule XVIII 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 pub-rule (I) shall provide information on demand to show that he has:

(a) identified the. major accident hazards; and

(b) taken adequate steps to-

(i) prevent such major accidents and to limit their consequences to persons and 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;

(iii) prevents such major accidents to limit their consequences. to persons and the environment; and

(iv) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safety and health.

93. Notification of Major Accidents

(1) Where a major accident occurs on a site or in a pipeline, the occupier, shall, within 48 hours, notify the Inspector and Chief Inspector of that accident, and furnish thereafter to the Inspector

and Chief Inspector a report relating to the accident in instalments, if necessary, in Schedule XXI.
(2) The Inspector and Chief Inspector On receipt of the report in accordance with sub-rule (1) of this rule, 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 Service and Labour Institutes and Ministry of Labour, Government of India.
(3) An Occupier shall notify to the Inspector steps token 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 Institutes 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 occident.

94. Industrial activity or Isolated storage to winch Rules 94 to 102 apply
(1)
(a) Rules 94, 95, 100 and 102 shall apply to an industrial activity, other than isolated storage, in which there- is chemical listed in Column 2 of Schedule XIX Which is equal to or more than the, threshold quantity specified in the entry for that chemical in Column 3:
(b) Rules 97 to 99 shell 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 XIX which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 4.
(c) Rules 94 and 95 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule XVIII which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 3; and
(d) Rules 97 to 100 and 102 shall apply to an isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule XVIII which is equal to or more than the threshold quantity specified in the entry for that chemical in Column 4.

95. 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 XXII at least 90 days before commencing that activity or before such shorter time as the Chief inspector may awe and for the purposes of this sub-rule, an activity in which subsequently there is or is liable to be a threshold quantity given in Column 3 of Schedules XVIII and XIX or more of and additional hazardous chemical shalt be deemed to be a different activity and shall he notified accordingly.
(2) The Chief Inspector within 60 days Item the date of receipt of the report in accordance with sub-rule (1) of this 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 thereunder has taken place, he may issue notice for obtaining compliance.

96. Updating of the site notification

Where an activity has been reported in accordance with rule 94 (1) and the occupier makes a change in it (including an increase or decrease in the maximum quantity of a hazardous chemical to which this rule applies which is or is liable to be at the site or in the pipeline or at the cessation of the activity) which affects the particulars specified in that report or any subsequent report made under this rule, the occupier shall forthwith furnish a further report to the Inspector and the Chief Inspector.

97. Safety Reports and Safety Audit Reports

(1) Subject to the following, sub-rules of this rule an Occupier shall not undertake any industrial activity or isolated storage to which this rule applies, unless he has prepared a Safety Report on that industrial activity containing the information specified in Schedule XXIII end 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 news and the existing industrial activities or isolated storages 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 out 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 30 days of the completion of the audit, shall send a report to the Chief Inspector with respect to the implementation of the audit recommendation.

98. Updating of safety reports under rule 97

(1) Where an occupier has made a safety report in accordance with sub-rule (1) of rule 97, he shall not make any modification to the industrial activity or isolated

storage to which that Safety report relates which could materially affect me particulars in that report, unless he has made a further report to take account of those modifications and has sent a copy of that report to the Inspector and Chief Inspector at least ninety days before making those modifications.
(2) Where an occupier has made a report in accordance with rule 97 and sub-rule (1) of this rule and that industrial activity or isolated storage is continuing, the occupier shall within three years of the date of the last such report make a further report which shall have regard in particular to new technical knowledge which has affected the particulars in the previous report relating to safety and hazard assessment, and shall within thirty days or in such longer times as the Chief Inspector may agree in writing, send a copy of the report to the Inspector and the Chief Inspector.

99. Requirement for further Information to be sent to the Inspector and the Chief Inspector

Where in accordance with rules 97 and 98, and occupier has sent safety report and safety audit report relating to an industrial activity of isolated storage to the Inspector and the 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 the Chief Inspector within ninety days.

100. Preparation of On-Site Emergency Plan by the occupier

(1) The It occupier shall prepare, keep up-to-date and furnish to the Inspector and Chief Inspector an "On-Site Emergency Plate 'containing details specified in Schedule XXIV and detailing how major accidents will be dealt with on the site on which the industrial activity or isolated storage is carried an and that Plan shall include the name of the person who is responsible for safety on the sift and the names of those who are authorised to take action in accordance wick the Plan in case of an emergency.
(2) The occupier shall ensure that the Emergency Plan prepared in accordance with sub-rule (1) of this rule, takes into account tiny 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 provisions.
(3) The occupier shall prepare the Emergency Plan required under sub-rule (1) of this rule:
(a) before the commencement of industrial activity or isolated storage;
(b) within ninety days of coming into operation of these roles in case of an existing industrial activity or isolated storage.
(4) The occupier shall ensure that a mock drill of the On-site Emergency is conducted at least once in every six months,
(5) A detailed report of the mock drill conducted under sub-rule (4) shall be made immediately available to the Inspector and Chief Inspector.

101. Information to be given to person liable to be affected by a major accident
(1) 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 ‘Dos’ and 'DONTs' which should be adopted in the event of a major accident.
(2) The occupier shall take the steps required under sub-rule (1) of this rule to inform persons about an industrial activity or isolated storage before that activity is commenced, except that in respect of an existing industrial activity or isolated storage, the occupier shall comply with the requirements of sub-rule (I) of this rule within ninety days of coming into operation of these rules.

102. Disclosure of information
Where, for the purpose of evaluating information notified under rule 93 or rules 94 to 102, the Inspector or the Chief Inspector 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 disclosing it, as the case may be, and before disclosing that information the Inspector or the Chief Inspector, as the case may be, shall inform that other person of his obligations under this rule.
103. 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.
Explanation: For the purpose of rules 90 to 103
(a) 'hazardous chemical" means:

(i) any Chemical which satisfies any of the criteria laid down in Part I of the Schedule XVII and is listed in column 2 of Part II of this Schedule; or
(ii) any chemical listed in column 2 of Schedule XVIII; or
(iii) any chemical listed in column 2 of Schedule XIX;
(b) 'Industrial activity' means an operation or process carried out in a factory referred to in Schedule XX 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 at least a quantity of that chemical set out in Schedule XVIII, but does not include storage associated with a factory specified in Schedule 101 on the same site;
(d) 'major accident" means an incident involving loss of life inside or outside the site or 10 or more injuries inside and/ or one or more injuries outside or release of toxic chemical or explosion or fire or spillage of hazardous chemical resulting in 'on-site' or 'off-site' emergencies or damage to equipment leading to stoppage. of process or adverse effects to the environment;
(e) "pipe line" means a pipe (together with any apparatus and works associated therewith, or systems of pipes (together with any apparatus and works associated therewith) for the Conveyance of hazardous chemical, other than a flammable gas

as set out in column 2 of Part II of Schedule XIX at a pressure of less than S bars absolute;
(f) "Schedule" means 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 thereunder have the Same meanings as assigned therein;
(h) For the purposes of rules 90 to 103 these rules may be called the Major Accident Hazards Control Rules.

CHAPTER V
WELFARE
104. Washing facilities
(1) This rule shall come into force, in respect of any class or descripting of factories, on such dates 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 persona adequate and suitable facilities for washing which shall include soap and nail brushes or other suitable means of cleaning and the Facilities shall be conveniently accessible and shall be kept in a clean and orderly condition.
(3) Without prejudice to the generality of the foregoing provisions the washing facilities shall include:
(a) a trough with taps or jets at intervals of not less than two feet, or
(b) wash-basins with. taps attached thereto, or
(c) taps on stand-pipes, or
(d) showers controlled by taps, or
(e) circular troughs of the fountain type.

Provided that the Inspector may, having regard to the needs and habits of the workers, fix the proportion in which the 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 immediately vicinity of every trough tap, jet, wash basin, standpipe 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 injuries or noxious substance there shall be at least one top for every fifteen persons; and for persons whose work does not involve such contact the number of taps shall be as follow:

No. of Workers	No. of Taps
Upto 20	1

21 to 35	2
36 to 50	3
51 to 150	4
151 to 200	5
Exceeding 200 but not exceeding 500	5 plus one top for every 50 or fraction of 50
Exceeding 500	11 plus one top 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 shell else be indicated pictorially.
(7) The water supply to the washing facilities shill be capable of yielding at least six gallons 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 there the Chief Inspector is satisfied that such a yield is not practicable he may by certificate in writing permit the supply of a smaller quantity not being less the then one gallon per day for every person employed in the factory.

105.

The following classes of factories shall provide therein suitable place for keeping clothing for work during working hours and for the drying of wet clothing. -
(1) Glass Factories.
(2) Iron and Steel Factories.
(3) Oil Mills.
(4) Chemical Factories.
(5) Automobile Workshops.

106. First Aid Appliance
The first aid boxes or cup-boards shall be distinctively marked with a red cross on a white ground and shall contain the following equipment.
A For factories in which the number of persons employed does not exceed ten or in the (case of factories in which mechanical power is not used) does not exceed fifty persons. Each first aid box or cup-boards shall contain the following equipments:
(i) 6 small sterilized dressings.
(ii) 3 medium size sterilized dressings.
(iii) 3 large size sterilized dressings.

(iv) 3 large site sterilized burn dressings.
(v) 1 (1 oz.) bottle containing a two per cent, alcoholic solution of iodide.
(vi) 1 (I. oz.) bottle containing sal-volatile having the dose and mode of administration indicated on the label.
(vii) A snake-bite lancet.
(viii) 1 (1 oz.) bottle of potassium permanganate crystals.
(ix) 1 pair of scissors.
(x) 1 copy of the first aid leaflet issued by the Chief Adviser, Factories. Government of India.
(xi) Tables aspirin (Grs. 5) One dozen.
(xii) Burn Ointment. One tube.
(xiii) Dettol. One phial (about 2 cis.)
B For factories in which mechanical power is used and in which the number of persons employed exceeds ten but does not exceeds fifty-Each first-aid box or cupboard shall contain the following equipment:
(i) 12 small sterilized dressings.
(ii) 6 medium size sterilized dressings.
(iii) 6 large size sterilized dressings.
(iv) 6 large size sterilized burn dressings.
(v) 6 (1/2 oz.) packets sterilized Catton wool.
(vi) I (2 oz.) bottle containing a two per cent alcoholic solution of iodine.
(vii) 1 (2 oz.) bottle containing sal-volatile haying the dose and mod of administration indicated on the liable.
(viii) 1 roll of adhesive plaster.
(ix) A snake bite lancet.
(x) 1 oz. bottle of potassium permanganate crystals.
(xi) 1 pair of scissors.

(xii) 1 copy of first-aid leaflet issued by the Chief Adviser factories, Government of India.
(xiii) Tablets aspirin (Grs 5) Two dozen.
(xiv) Burn Ointment Two tubes.
(xv) Dettol Two Phial (about 2 ozs.)
C For factories employing more than fifty persons. Each first-aid box or cupboard Shall contain the following experiments:
(i) 24 small sterilized dressings.
(ii) 1.2 medium size sterilized dressings.

(iii) 12 large size sterilized dressings
(iv) 12 large size eternized burn dressings.
(v) 12 (1/2 oz.) packets sterilized cotton wool.
(vi) 1 snake bite lancet.
(vii) 1 pair of scissors.
(viii) 2 (1 oz.) bottles of potassium permanganate crystals.
(ix) 1 (4 oz.) bottles containing a two per cent alcoholic solution of iodine.
(x) 1 (4 oz) bottle or sal-volatile having the dose and mode of administration indicated on the label.
(xi) 1 copy of the first-kid leafier issued by the Chief Adviser, Factories, Government of India.
(xii) 12 tolls bandages 4 inches wide.
(xiii) 12 bandoses.2 inches wide.
(xiv) 2 rolls of adhesive plaster.
(xv) 6 triangular bandages.
(xvi) 2 packets of safety pins.
(xvii) A supply of suitable splints.
(xviii) 1 tourniquet.
(xix) Tablets asprin (grs. 5): Four dozen
(xx) Burn Ointment: Four tubes.
(xxi) Dettol - (xvii)

Provided that items (xii) to (xviii) inclusive need not be included in the standard first-aid box or cupboard (al where there is a properly equipped ambulance room, or (b) if -at least one box containing such items and placed and maintained in accordance with the requirements of Section 45 is separately provided.
D In lieu of the dressings required under items (i) and (ii) there may be substituted adhesive wound dressings approved by the Chief inspector of Factories.

107. Ambulance Room
(1) The ambulance room or dispensary shall be in charge of qualified medical practitioner assisted by at least one qualified nurse and such subordinate staff Inspector may direct.

Explanations: "Qualified medical practitioner means a person holding a qualification granted by art authority specified in the Schedule to the Indian Medical Degrees Act, i916 (VII of 1916) or in the Schedules to the Indian Medical Council Act, i956.

(2) The ambulance room or dispensary shall he separated (ruin the rest of the lawny and shall be used only for the purpose of first-aid treatment and rest. it shall have

a floor area of at least 250 sq. ft. and smooth, hard and impervious walls and floor and shall be adequately ventilated and lighted by both natural and artificial means. An adequate supply of wholesome drinking water shall be laid on and the room shall contain at least:
(i) A glazed sink with but and cold water always available,
(ii) A table with a smooth top at least 6" x 3’6”
(iii) Means for sterilizing instruments.
(iv) A couch.
(v) Two stretchers.
(vi) Two buckets or containers with dose fitting lids.
(vii) Two rubber hot water bags.
(viii) A kettle and spirit stove-Or other suitable means of boiling water.
(ix) Twelve plain wooden splints 36" g 4" x 1/4".
(x) Twelve plain wooden splints 1.44 x r x 1/4".
(xi) Six plain wooden splints 10" x 2" x 1/2".
(xii) Six woolen blankets.
(xiii) One pair of astery forceps.
(xiv) One bottle of brandy.
(xv) Two medium size sponges.
(xvi) Six hand towels.
(xvii) Four "kidney" trays.
(xviii) For cakes carbolic soap.
(xix) Two glass tumblers and two wine glasses.
(xx) Two clinical thermometers.
(xxi) Graduated measuring glass with teaspoon.
(xxii) One eye bath.
(xxiii) One bottle (2 lbs.) carbolic lotion 1 in 20.
(xxiv) One screen.
(xxv) Three chairs.
(xxvi) One electric hand torch.
(xxvii) Four first-aid boxes or cupboards stocked to the standards prescribed under item C of Rule 106.
(xxviii) An adequate supply of anti-tetanus serum.
(3) The occupier of every factory to which these Rules apply shall for the purpose of removing serious cases of accident or Sickness, provide in the premises and

maintain in good condition a suitable conveyance unless he has made arrangements for obtaining such a conveyance from a hospital.
(4) A record of all cases of accident and sickness treated at the room shall be kept and produced to the inspector of Certifying Surgeon when required.

108. Canteens

(1) Rules 1108 to. 114 shall come into force in respect of any class or description of factories on such dates as (he State Government may, by notification in the official gazette, appoint in this behalf.
(2) The occupier of every factory notified by the Chief Commissioner, sat where in more than two hundred and fifty workers arc ordinarily employed shall provide in or near the factory an. adequate canteen according to the standards prescribed in these Rules.
(3) The Manager of a factory shall submit for the approval of the Chief Inspector plans and site plan, in duplicate, of the budding to be constructed or adapted for use as a canteen.
(4) The canteen building shall be situated not less than fifty feet from any latrine, urinal, boiler house, coal stacks, ash dumps and any other source of dust, smoke or obnoxious fumes.

Provided that the Chief Inspector may in any particular factory relax the provisions of this sub-rule to such extent as may 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 4 feet from the floor shall be made of smooth and impervious materials; the remaining portion of the inside walls shall be made smooth by cement plaster or in any other manner approved by the Chief Inspector.
(7) The doors, Windows of a canteen building shall be of fly proof construction and shalt allow adequate ventilation.
(8) The canteen shall be sufficiently lighted at all times when any person has access to it.
(9)
(a) In every Canteen-
(i) all inside walls of rooms and all railings and passages and staircases shall be lime-washed or colour -washed at least once each year or painted once in three years dating from the period when last lime-washed. or painted, as the case maybe;
(ii) all wood work shall be varnished or painted once in three years dating from (he period when last varnished or painted;

(iii) all internal structural iron or steel work be varnished or painted once in three years dating from the period when last varnished or painted.

Provided that inside walls of the kitchen shall be lime-washed once every four months.
(b) Record of dates on which lime-washing, colour-washing. varnishing of painting is carried out, shall be maintained in the prescribed Register Form No.10.
(10) The precincts of the canteen shall be maintained in a clean and sanitary condition. Waste water shall be carried away in suitable covered drains and. shall not be allowed to accumulate so as to cause a nuisance. Suitable arrangement shall be made for the collection and disposal of garbage.

109. Dining Hall

(1) The dining halt shall accommodate at 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 Chief Commissioner may, by a notification in this behalf, alter the percentage of workers to be accommodated.
(2) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs, shall be not less than 10 square feet per dinner to be accommodated as prescribed in sub-rule (1).
(3) A portion of the dining nail and service counter shall be partitioned off Said reissued for women workers in proportion to their number. Washing place for woman shall be separate and screened to Secure privacy.
(4) Sufficient tables, chairs or benches shall be available for the number of diners to be accommodated as prescribed in sub-rule (1).

110. Equipment
(1) There shall he provided and maintained sufficient utensils, crockery, cutlery, furniture and any other equipment necessary for efficient running of the canteen. Suitable clean clothes for employees serving in the canteen shall also be provided and maintained.
(2) The furniture, utensils end other equipment shah be maintained in a class and hygienic Condition. A service counter, if provided, shall have a top of smooth and impervious material. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment.
(3) Where the canteen is managed by a co-operative society, registered under the Bombay Co-operative Societies Act, 1952 as in force in the Union Territory of Delta, the occupier shall provide and maintain the equipment as required under sub-rule (1) for such Canteen.

111. Prices to be charged
(1) 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 the Canteen Managing Committee.
(2) In computing the pi-lees referred to in sub-rule (1) the following items of expenditure shall not be taken into consideration, but will be borne by the occupier:
(a) the rent for the land and building;
(b) the depreciation and maintenance charges of the building and equipment provided for the canteen;
(c) the cost of purchase, repair and replacement of equipment including furniture, rockery, cutlery and utensils;
(d) the water-charges and expenses for providing lighting and ventilation;
(e) the interest on the amount spent on the provision and maintenance of the building furniture and equipment provided for the canteen;
(f) the cast of fuel required for cooking or heating food stuffs or water; and
(g) the cost of uniforms; if any provided to them.
(3) The charge per portion of foodstuff; beverages and any other item served in the canteen shall be conspicuoue1y displayed in the canteen.

112. Account

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

(2) The accounts pertaining the Canteen shall be audited, once every month, by registered accountants and auditors. The balance-sheet prepared by the said auditors shall be submitted to the Canteen Managing Committee not latter two month alter the closing of the audited accounts.

Provided that the accounts pertaining to the canteen in a Government may audited in such Department.

113. Managing Committee

(1) The Manager shall appoint a Canteen Managing Committee which shall he consulted Irma lime 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 ml-ids in the canteen: and

(d) any other matter as may be directed by the Committee.

(2) The Canteen Managing Committee shall consist of an equal number of persons nominated by the occupier and sleeted by the workers. The number of elected workers shall 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 determine and supervise the procedure for elections to the Canteen Managing Committee.

(4) A Canteen Managing Committee shall be dissolved by the Manager two years alter the last election, no account being taken of a bye-election.

114. Shelters Rest Rooms and Lunch Rooms

The shelters, or rest rooms and lunch moms shall confirm to the following standards and the Manager of a factory shall submit for the approval of the Chief Inspector a site plan in duplicate of the building to be so constructed or adopted:

(a) The building shall be soundly constructed and all the walls and roof shall be of suitable heat resisting materials and shall be waterproof. The floor and walls to a height of 3 feet shalt be so laid or finished to provide a smooth, hard and impervious surface.

(b) The height of every room in the building shah he not less than 12 feet from Boor level to the lowest part of the roof and them shall be at least 12 square feet of floor area for every person employed.

Provided that

(i) workers who habitually go home for their meals during the rest periods may be excluded in calculating the number of workers to be accommodated; and

(ii) in the case of factories in existence at the date of commencement of the Act, where it is impracticable, owing to lack of space to provide 12 square feet of floor area for each person, such reduced floor area per person shall he provided as may be provided in writing by the Chief Inspector.
(c) Effective and suitable provision shall he 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 chairs or benches with back-rests.
(e) Sweepers shall be employed whose primary duty is to keep the rooms, building and precincts thereof in a clean and tidy condition.

115. Creches
(1) The creche shall be conveniently accessible to the mother 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 noisy process are carried in.
(2) The building in which the creche is situated shall be soundly constructed end 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.

(3) The height of the rooms in the building shall be not less than 12 feet from the floor to the lowest pan of the roof and there shall be not less than 20 sq. ft. of floor area for each child to be accommodated.
(4) 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.
(5) The creche shall he adequately furnished and equipped and in particular there shall be one suitable cot or cradle with the necessary bedding for each child. (provided that for children over two years of age it will be sufficient if suitable bedding is made available) at least one chair or equivalent seating accommodation for the use of each mother while she is feeding or attending to her child, and a sufficient supply of suitable toys for the older children.
(6) 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 not sufficient space available for the provisions of such a play-ground

116.
The case of equivalent of the advantage accruing through the concessional sale to a worker of food grains and other articles shall be computed at the end of the every wages period Reed under the provisions of the payment of Wage Act, 1936.
117.
For the purpose of computing cash equivalent of the advantage gemming through the concessional sale to a worker of tired grains and other articles, the difference between the value of food grains and other articles at the average rates in the nearest market prevailing

during the wages period in which over time was marked rind value of food grains and other articles supplied at. concessional rates shall be calculated and allowed for the number of overtime hours worked.

118. Wash Room

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

(a) The floor and internal walls of the root to a height of 3 feet shall be so laid or finished as to provide a smooth impervious surface. The room shell be adequately lighted and ventilated rind the floor shall be effectively drained and maintained in a clean and tidy condition.

(b) There shall be at least one basin or similar vessel for every four children accommodated in the creche at any one time together with a supply of water provided, if practicable through taps from a source approved by the Moan]) Officer. Such source shall be capable of yielding for each child a supply of at least five gallons of water a day-

(c) An adequate supply of clean clothes, soap and clean towels shall be made available for each child while it is in the creche.

(2) Adjoining the wash mom referred to above a latrine shall be provided for the sole use of the children in the creche. The design of latrine and the scale of accommodation to be provided shall either be approved by the Public Health Authorities, or where there is no Public Health Authority, by the Chief Inspector of Factories.

119. Supply of Milk and Refreshment

At least half a pint of clean pure milk shall be available for each child on every day it is accommodated in the creche and the mother of such a child shall be allowed in the course of her daily work; 2 intervals at least 15 minutes each to feed the child. For children above two years of age there shall be provided in addition an adequate supply wholesome refreshment.

120. Clothes for Creche Staff

The creche staff shall be provided with suitable clean clothes for use while on duty in the creche.

121. Welfare Officers

(1) There shall be one Welfare Officer for factories employing between 500 to 2000 workers. Where the number of workers exceeds 2000, there shall be an additional Welfare Officer for every additional to thousand workers or fraction thereof over 500.

(2) No person shall be eligible for appointment as a Welfare Officer, unless he

(a) possesses a degree of a University recognised by the Chief Commissioner in this behalf;

(b) has obtained a Degree or Diploma in Social Science froth an institution recognised by the Chief Commissioner in this behalf; and

(c) has adequate knowledge of the language spoken by the majority of the workers in the factory which he is to be attached.

Provided that, in the case of a person, who is acting as a Welfare Officer to the commencement of this rule, the Chief Commissioner may, subject to such conditions as he may specify, relax all or any of the aforesaid qualifications.

Provided further that the Chief Commissioner may relax the above qualification if he is satisfied that the person is otherwise fully competent of discharge the duties;
(3)
(a) The post of a Welfare Officer shall be advertised in at least two newspapers, one which shall be in Milo and one in English, having a Wide circulation in the State.
(b) The selection shall be made froth amongst the candidate applying for the post by a Committee appointed by the Occupier of the Factories.
(c) The appointment when made shall be notified by the Occupier. the Chief Commissioner or such authority as the Chief Commissioner may specify for the purpose, giving full details of the qualifications etc. of the officer appointed and the conditions of his service,

(4)
(a) A Welfare Officer shell be given a status Corresponding to the status of the other executive heads of the factory and shall be appointed at a minimum salary of Rs. 15,000.00 per month.
(b) The conditions of service of a Welfare Officer shall be the same as of other members of the staff of corresponding status in the factory, provided that no punishment shall be inflicted on a Welfare Officer without obtaining the prior approval of the Chief Commissioner.
(5) The duties of a Welfare Officer shall be:
(i) to contracts and hold consultations with a view to maintaining harmonious relations between the factory management and workers.
(ii) to bring to the notice the factory management the grievances of a worker or workers, with a view to secure expeditious redress and to act as a Liaison Officer between management and labour.
(iii) to study and understand the point of view of labour in order to help the factory management to shape and formulate labour policies and to interpret these policies to the workers in a language understood by them;
(iv) to watch industrial relations with a view to use his influence in the event of a dispute arising between the factory management and workers and to bring about a settlement by persuasive efforts;
(v) to advise on fulfillment by the management and the concerned departments of the factory of their obligations, statutory or otherwise concerning Regulation of working hours, maternity benefit, medical care compensation for injuries and sickness and other welfare and soda! benefit measures;
(vi) to advise and assist the management in the fulfillment of its obligations statutory or otherwise, concerning prevention of personal injuries and maintaining a safe work environment in such factories where Safety Officer is not required to be appointed under the enabling, provisions under section 40B of the Act;
(vii) to promote such relations between the concerned departments of the factory and workers as are likely to bring about productive efficiency as well as amelioration in the working conditions and to help the workers in their adjustment end adoption of their working environments;
(viii) to encourage the formation of works and Joint Production Committees and Safety-First and Welfare Committees, and to supervise their work:

(ix) to encourage provisions of amenities such as canteen, Shelters for lest, creches, adequate latrine facilities, drinking water sickness and benevolent scheme payments, pension and superannuation hinds, gratuity payments, granting of loans and legal advice to workers;
(x) to help the factory management in regulating the grant of leave with wages and explain to the workers the provision relating to leave with wages and

other leave privileges and to guide the workers in the matter of submission of applications for the grant of leave for regulating authorised absence:
(xi) to advise on questions relating to provisions of welfare facilities, such as housing facilities, food stuff, social and recreational facilities, sanitation, individual personnel problems and education of children;
(xii) to advise the factory management on question relating to training of new starters, apprentices, workers on transfer and promotion, instructions and supervisors, supervise and control notice-boards and information bulletins to further education of workers and to encourage their attendance at Technical Institutes;
(xiii) to suggest measures which will raise the standard of living of workers and promote their well-being in general.
(6) The Chief Commissioner may, by notification in the official Gazette, exempt any factory or class or description of factories from the operation of alt or any of the provisions of this rule subject to such conditions as may be specified in the said notifications.
(7) Welfare Officers not to deal with disciplinary cases or Appear on behalf-of the management against workers.

No Welfare Officer shall deal with any disciplinary case against a worker or appear before a Conciliation Officer, or in a Court or Tribunal on behalf of the factory management against a worker or workers.

CHAPTER VI

WORKING HOURS OF ADULTS

122. Compensatory Holidays

(1) Except in the ease of workers engaged in any work which for technical reasons must be carried on continuously throughout the day, the compensatory holidays to be allowed under sub-section (1) of Section 52 of the Act shall be so spaced that not more than two holidays arc given in one week.
(2) The Manager of the factory shall display, on or We're the end of the month in which holidays are lost, a notice in respect of workers- allowed compensatory holidays during the following month and of the dates thereof, in the place at which the notice of Periods of Works, prescribed under Section 61 of the Act is displayed. Any subsequent change in the notice in respect of any compensatory holiday shall be made not less than three days in advance of the date of that holiday.
(3) Any compensatory holiday or holidays to which a worker is entitled shall be given to him before he is discharged or dismissed and shall not be reckoned as part of any period-of notice required to be given before discharge or dismissal.
(4)

(a) The manager shall maintain a Register in Form No.14: 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 factory or return made by the Manager, gives in respect of any or all of the workers in the factory the particulars

required for the enforcement of Section 52 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 he treated as the register or return required under this Rule for that factory.
(b) The register maintained under Clause (al shall be preserved for a period of three years after the last entry in it and shall be produced before the lnspector on demand.

123. Muster-roll for exempted factories
The Manager of every factory in which workers are exempted under Section 69 and 65 of the Act from the provisions). of section 51 or 54 Of the Act shall keep a mustier-roll in Form No.15 showing the normal piece-work rate of pay, or the rate of pay per hour, of all exempted employees. in this master-roll shall be correctly entered the over-time hours of work and payments therefore of all exempted workers. The muster-roll in Form No. 14 shall always be available for inspection.
124. Overtime slip for Overtime work
Period of overtime work shall be entered in overtime slip in Form No. 16 in duplicate a copy of which duly signed by the Manager or by a person duly authorised by hint in this behalf shall he given to the worker immediately after completion of this overtime work.
125. Notice of periods of work for adults
(1) The notice of periods of work for adults shall be:
(a) in Form 17 when all the adult workers in a factory arc required to work within the same period.
(b) in Form 18 in all other cases.
(2) All notices shall be pointed in bold letters on a wooden or metal plate and shall be displayed in a conspicuous place at the main entrance to the factory.

126. Register of adult workers
The muster-roll or the resister, as the case may be, shall be written up fresh each year and shall be preserved for a period of 12 months after the last entry in it, and shall be produced before the inspector on demand.
127. Persons defined to hold positions of supervision or Management
The following persons shall be deemed to hold position of supervision or management provided they are not required to perform any manual labour as a regular part of their duties and they are employed in n supervisory capacity.
(i) All persons specified in Schedule XV.
(ii) Any other persons specified, who in the opinion of the Chief Inspector holds a position of supervision or management and if so declared by him in writing.

128. Persons to hold confidential position
The following persons shall deemed be to hold confidential position in a factory:

1. Stenographers.

2. Office Superintendent or Head Clerk.
3. All time keepers.
4. Head Cashiers and Cashiers
5. Head Accountants and Accountants.
6. Secretary to Managing Director or Personal Assistant to the Manager.
7. Any other person who is in the opinion of the Inspector holds a confidential position and is so declared by hint in writing.

129. List to be maintained of persons holding position of supervision or management or confidential position

A list showing the names and designations of all persons in rule 127 and 128 shall be maintained in every factory and shall be produced before the Inspector whenever required.

130. Exemption of certain adult Workers

Adult Workers engaged in factories specified in column 2 of schedule XVI specified in column 3 of the said Schedule shall be exempted from the provisions of the sections specified in column 4 subject to the conditions if any specified in column 5 of the said Schedule.

Explanation: The following shall be considered to be urgent repairs.

(a) Repairs to any part of machinery, plant or structure of a factory which are such a nature that delay in their execution involve, danger in their human life of safety or the stoppage of manufacturing process.

(b) Break: down repairs to the motive power, transmission or other essential plant of Other factories, collieries, railways dockyards, harbours, tramways, motor transport, gas, electrical generating and transmission, pumping or similar essential or public utility service carried out in a general engineering works and foundaries and which arc necessary to enable such concerns to maintain their main manufacturing process, production of service during normal working hours.

(c) Repairs in connection without change of motive power, for example from steam to electricity or vice versa, when such work cannot possibly be done without stoppage of the normal manufacturing process.

CHAPTER VII

EMPLOYMENT OR YOUNG PERSON

131. Notice of periods of work for children

The notice of periods of work for child workers shalt be in Form No.20.

132. Register of child workers

The Register of child workers shall be in Form No. 21.

133.

The cash equivalent of the advantage accruing through the concessional sale of food grains and other articles payable to workers proceeding on leave shall be the difference

between the value at the average rates in the nearest market prevailing diming the month immediately preceding his leave and the value at the concessional rates allowed of food grains and other articles he is entitled to.
For the purpose of the cash equivalent monthly average market rate of food grains and ether articles shall be computed at the end of every month.

CHAPTER VIII

LEAVE WITH WAGES

134. Leave with wages register

(1) The Manager shall keep a Register in Form No.22 hereinafter called the Leave with Wages Register:

Provided that if the Chief Inspector is of the opinion that any muster-toll 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 mat such muster-roll or register or return shall, to the corresponding extent, be maintained in place of and be treated as the register of 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.

135. Leave Book

(1) The Manager shall provide each worker who has become entitled to leave during a calendar Year, with a book in Form No.23 (hereinafter called the Leave Book). Not later than the 31st January of the following calendar Year The leave Book shall be the property of the worker and the Manager of his agent shall not demand it except to make the relevant entries therein whenever necessary and shall not keep it for more than a week, at a time.

Provided that in the ease of a worker who is discharged or dismissed from service during the course of the year i.e. who is covered under sub-section (3) section 79 of the Act, the Manager shall issue an abstract front) the "Register of Leave with Wages" (Form No.22) within a week from the date of discharge or dismissal, as the case may be.
(2) If a worker loses his Leave Book, Manager shall provide him with another copy on payment of Rs.10 and shall complete it from his record.

136. Medical Certificate

If any worker is absent from work due to his illness and he wants to avail himself of leave with wages due to cover the whole or part of the period of his illness under the provisions of sub-section (7) of Section 9, he shall, if required by the Manager, produce a medical certificate signed a Registered Medical Practitioner or recognised Void or Hakim stating the cause of the absence and the period for which the worker, is, in the opinion of such medical practitioner, Vaid of Hakim unable to attend to his work or other reliable evidence to prove that he was actual sick during the cried for which he leave is to be availed of.

137. Notice to Inspector of involuntary unemployment

The Manuel shall give, as soon as possible a notice to the Inspector of every case of involution unemployment of workers, giving numbers of unemployed and the reason of their unemployment. Entries to this effect shall be made in the Leave with %%ram Register and the leave book in respect of each worker concerned.

138. Notice by Worker

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

139. Notice of Leave with wages

(1) As far as circumstances parried members of the same family comprising husband, wife and children shall be allowed leave on the' same date.

(2) The Manager may alter the dates fixed for leave only after giving a notice of four weeks to the worker.

140. Payment of wages if the worker dies

If a worker dies before he resumes work, the balance of his pay due for the period of leave with wage not availed of shall be paid to his nominees within one week of the intimation of the death of the worker. For this purpose each worker shall submit nomination in the following form duty signed by himself and attested by two witnesses.

141. Register to be maintained in case of exemption section 84 of the Act

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

(2) He shall display at the main entrance of the factory. a notice giving full details of the system established in the factory for leave with wages end shall send a copy of it to the Inspector.

(3) No alteration shall be made in the scheme approved by the Chief Commissioner at the lime of grunting exemption under Section 84 of the Act without its previous sanction.

CHAPTER IX

SPECIAL PROVISIONS

142. Dangerous Operations

Rule 142 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.

(1) The following operations (Manufacturing process or operation) when carried on in a factory are declared to be dangerous operations under Section 87 of the Act:

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 and other chromium compounds.
3. Manufacture and repair of electric accumulators.
4. Glass manufacture.
5. Grinding or glazing of metals.

6. Manufacture and treatment of lead and certain compounds of lead.
7. Generating petrol gas from petrol.
8. Cleaning or smoothing 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 and processes incidental thereto.
10. Manufacture of Pottery.
11. Lead Processing.
12. Chemical works and processes incidental thereto.
13. Manufacture of articles from refractory materials.
14. Handling and processing of asbestos for manufacture of any article of asbestos and process of manufacture or otherwise in which asbestos is used in any form.
15. Handling or manipulation of corrosive substances.
16. Compression of Oxygen or Hydrogen produced by electrolysis of water.
17. Process of extracting of oil and fats from extraction plants.
18. Manufacture of manipulation of Manganese and its compounds.
19. Manufacture of manipulation of dangerous pesticides-
20. Manufacture, handling and use of Benzene and substances containing Benzene.
21. Manufacturing process or operation is Carbon Di Sulphide plants.
22. Manufacture and manipulation of carcinogenic dye intermediates.
23. Operation involving high noise levels.
24. Highly flammable compressed gases.
25. Operations in foundries.
26. Manipulation or stone or any other material containing Free Silica.

143. Notification of accidents and dangerous occurrences
(1) When any accident or any dangerous occurance specified in the Schedule, which results in the death of any person or which result 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 (i) shall be sent also to:
(a) the District Magistrate or Sub-Divisional Officer I.

(b) the officer in charge of the nearest police station, and
(c) the relatives of the injured or deceased person.
(2) Any notice given as required under sub-rules (1) and (2) shall be confirmed by the manager of the factory to the authorities mentioned in these sub-rules within 12 hours of the accident or the dangerous occurrence by sending the Written report in Form No.26 in the case of an accident or dangerous occurrence causing death or bodily injury to any person and in Form 27 in the case of dangerous occurrence which has not resulted in any bodily injury to any person.
(3) When any accident or dangerous occurrence specified in the Schedule takes place in a factory and it causes such bodily injury to any person and 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.26 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 any accident or dangerous occurrence death occurs of any person injured by such accident or dangerous occurrence after the notices and reports referred to in the foregoing sub-rules have been sent the manager to the factory shall for with send a notice thereof by telephone, special messenger or telegram to the authorities and persons mentioned in sub-rule (1) and (2) and also have this information confirmed in writing within 12 hour of the death.

Provided further that, if the period of disability from working for 48 hour or more referred to in sub-rule (4) does not occur immediately following the accident, or the dangerous occurrence, but later on occurs in more than on spell, the report referred to shall be sent to the Inspector in the prescribed Form 26 within 24 hours immediately following the hour when the actual total period of disability from working resulting from the accident or the dangerous occurrence becomes 48 hours.

144. Notice of poisoning or disease

A notice in Form No.28 should be sent forthwith both to the Chief Inspector and to the Certifying Surgeon, the Manager of a factory in which there occurs a case of lead, phosphorus, mercury, manganese, arsenic, carbon bisulphide or benzene poisoning by nitrous fumes, or by halogens or halogen derivatives of the hydrocarbons of the aliphatic series; or of chrome ulceration, anthrax silicosis, toxic anecemia, toxic jaundice primary opitheliomatous cancer of the skin; or pathological manifestations due to radium or other radioactive substances or X-rays.

CHAPTER X

SUPPLEMENTAL

145. Procedure in appeals

(1) An appeal presented under Section 107 of the Act shall lie to the. Chief Inspector or in cases where the order appealed against in an order passed by that officer, to the Chief Commissioner or to such authority as the Chief Commissioner 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 beating cut-fee strips in accordance with Article 11 of Schedule II to the Court fee 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 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 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 appellant desires should appoint such assessor; and
(c) if the appellant is not a member of any of the aforesaid bodies or if the does not state in the memorandum which of such bodies he desires should appoint the assessor, be the body which the appellate authority considers as the best fitted to represent the industry concerned.
(4) Remuneration of assessors: An assessor appointed in accordance with the provisions of sub-rule (2) and (3) shall receive fur the hearing of the appeal, a fee to be fixed by the appellate authority, subject to a maximum of fifty rupees per dies. He shall also receive the actual traveling expenses. The fees and traveling shall be paid to the assessors by Government; but where assessors have been appointed at the request of the appellant and the appeal had been decided wholly or partly against him the appellate authority may direct that the ices and traveling expenses of the assessor shall be paid in whole or in part by the appellant.

146. Display of notices
The abstract of the Act and of the Rules required to be displayed in every factory shall be in Form No. 29. Rules prescribed under Section 110 of the Act.
147. Return
The occupier or manager of every factory shall furnish to the Chief Inspector or any other officer designated by the Chief Commissioner in this behalf the following returns, namely:
1. Annual return: On or before the 15 January of each year an annual return, in duplicate, in Form No. 30 relating to the following matters
(a) Average number of workers employed daily and normal hours worked per week;

(b) Leave with wages;
(c) Compensatory holidays; Accident;
(d) Canteens in the case of factories notified by the Chief Commissioner; wherein more than 250 workers arc 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;
(g) Welfare Officer in the Case of factories wherein 500 workers or more are ordinarily employed.
2. 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. This return shall be submitted whether the factory is working or is not working during the year preceding the year to which the return relates.

Provided that the Chief Commissioner may dispense with this return in the case of any specified factory or airy class of factories or of factories in any particular area.
Provided further that where the manager of any factory makes any departure from the list of holidays, as aforesaid, prior intimation shall be given to the Chief Inspector
Provided also that in the case of a factory in which work is carried on only during certain period or periods of the year the manager shall if so required by the Chief Commissioner or if the Chief

Commissioner directs, through the Chief Inspector, submit the annual or half yearly return, as the case may be, within 15 days after the close of that period or after close of the last of those periods in the year, as the case may be.
3. Half-yearly return: On or before the 15th January and 15th July of each year, a half-yearly return, in duplicate, in Form No. 31.

148. Service of notices
The dispatch by post under registered cover of any notice or order shall be deemed sufficient service on the occupier/owner or manager of a factory of such notice or order.
149. 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 has been duly carried out. Any demand by an Inspector, for any such information, if made, during the course of art inspection shall be complied with forthwith 'if the information is available in the factory or; if made in writing, shall be complied with within seven days of receipt thereof.
150. Muster-roll
The manager of every factory shall maintain a muster-roll of all the workers employed in the Factory in Form No. 34 showing

(a) the name of each worker;
(b) the nature of the work and;
(c) the daily attendance of the worker.

Provided that, if the daily attendance is noted in the Register of Adult Workers in Form No.19 or the particulars required under this Rule are noted in any other register, a separate muster-roll required under this rule need not be maintained.
151. 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. 35.
152. Maintenance of Inspection book
The Manager of every factory shall maintain a bound inspection book and shall produce it when so required by the Inspector or Certifying Surgeon.
153. Information regarding closure of factories
The Occupier or Manager of every factory shall report in writing to the Inspector, any intended closure of the factory or any section or department thereof, immediately it is decided to do so, intimating the reasons for the closure, the number of workers on the register on the dam of the report, the number of workers likely to be affected by the closure and the probable period of the closure. Intimation shall also be sent to the Inspector as soon as the factor; or section or department of the factory as the case may be, starts working age.
SCHEDULE I
(Prescribed under Rule 7)
Fees for the grant of license for a factory for one to five years.

No. of workers

Upto 20	21 to 50	51 to 100	101 to 250	251 to 500	500 and above
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
100	300	500	700	1000	1500
200	600	1000	1400	2000	3000
300	900	1500	2100	3000	4500
400	600	2000	2800	4000	6000
500	1200	2500	3500	5000	7500

SCHEDULE II

(Prescribed under Rule 21)

PART-A

Blast furnaces.

Brick and tile works in which unglazed bricks or tiles are made.

Cement works.

Chemical works.

Gas works.

Iron and steel mills

Stone, slate and marble works.

The following parts of factories:

Rooms used only for the storage of articles.

Rooms in which the walls or ceilings, consist of galvanised iron, glazed bricks, glass, slate, asbestos, bamboo, thatch.

Parts in which dense steam is continuously evolved in the process

Parts in which pitch, tar or like material is manufactured or is used to a substantial extent, except in brush works. The parts of a glass factory known as the glass house. Rooms in which graphite is manufactured or is used to a substantial extent in any process.

Parts in which coal, coke, oxide or iron, ochre, lime or stone is crushed on ground.

Parts of walls, particulars, ceilings or tops of rooms which are at least 20 feet 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 5 feet from the ground floor level.

Inside walls in tanneries below a height of 5 feet from the ground floor level where a wet process is carried on.

PART – B

Coach and motor body works.

Electric generating or transforming stations.

Engineering works.

Factories in which sugar is refined or manufactured.

Foundaries other than foundaries in which brass casting is carried on

Gun factories.
Those parts of factories where unpainted or unvarnished wood is manufactured.

SCHEDULE III
(Prescribed under Rule 24)

Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb
(1)	(2)	(3)	(4)	(5)	(6)
60.0	58.0	77.0	75.0	94.0	86.5
61.0	59.0	78.0	76.0	95.0	87.0
62.0	60.0	79.0	77.0	96.0	87.5
63.0	61.0	80.0	78.0	97.0	88.0
64.0	62.0	81.0	79.0	98.0	88.5
65.0	63.0	82.0	80.0	99.0	89.0
66.0	64.0	83.0	80.5	100.0	89.5
67.0	65.0	84.0	81.0	101.0	90.0
68.0	66.0	85.0	82.0	102.0	90.0
69.0	67.0	86.0	82.5	103.0	90.5
70.0	68.0	87.0	83.0	104.0	90.5
71.0	69.0	88.0	83.5	105.0	91.0
72.0	70.0	89.0	84.0	106.0	91.0
73.0	71.0	90.0	84.5	107.0	91.5
74.0	72.0	91.0	85.0	108.0	91.5
75.0	73.0	92.0	85.5	109.0	92.0
76.0	74.0	93.0	86.0	110.0	92.0

SCHEDULE IV
(Prescribed under Rule 39)
PART I
Parts of factories in which light sensitive photographic materials are made or used in an exposed condition.
PART II
Cement works.
Works for the crushing and grinding of limestone.
Gas works.
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.

SCHEDULE V

(Prescribed under Rule 59)

COTTON TEXTILES

1. Cotton Openers, Scutchers, Combined Openers and Scutcher and Lap machines, Hard Waste breakers, etc.

(1) All Cotton Openers, Scutchers, Combined Openers and Scutchers, Scutchers and Lap machines, Hard Waste Breahers and similar machines shall be driven by separate motors or from counter shafts provided with fast and loose pulleys and efficient belt shifting devices.

(2) In all Openers, Combined Openers and Scutchers, Scutchers, Lap machines, Hard Waste Breakers and similar machines, the beater covers and doors which give access to any dangerous part of the machine shall be fitted with effective interlocking arrangements which shall prevent:

(a) the covers and doors being opened while the machine is in motion;

(b) the machine being re-started until the covers and doors and close;

Provided that in respect of doors of openings, other than dirt doors or desk doors such openings shall be so fenced as to prevent access to any dangerous part of the machine if effective interlocking arrangement is not provided.

(3) In all Openers, Combined Openers and Scutchers, Scutchers, Scutchers lap machines, Hard waste Breakers rend similar machines, the openings giving access to the dust chamber shall be provided with permanently fixed fencing which shall, while admitting light, yet prevent contact between any portion of a worker's body and the beater grid bars.

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 the stripping or grinding operations shall be carried out only by specially trained adult workers wearing tight fittings clothes whose

name have been recorded in the register prescribed in this behalf as required in sub-section (1) of Section 22.

2. Combined Openers and Scutchers, Scutcher lap, Silver Lap, Lap Machines, Dorby Doublers and Ribbon Machines: (1) The lap forming rollers shall be fitted with a guard or cover which shall prevent access to the intake of the lap roller and fluted roller as long as the weighted rack

is down; or (2) 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 guard or cover is closed.
3. Carding Machines: All Cylinder doors shall be secured by an automatic locking device 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.
4. Speed Framers: Headstocks shell he fitted with automatic locking arrangements which shall prevent the doors giving access to jack box wheels opened while the machinery is in motion and shall render it impossible to restart the machine until the doors have been closed.
5. Self-acting Mules: The drive shall be from counter shafts which shall be provided with fast and loose pulleys and efficient belt shafting devices.
6. Calendering Machines etc.: In respect of calendering machines, mangles and similar machines all such machines shall be provided with an efficient "nip" guard along the whole length on the intake side of each pair of bow is and similar parts which shall be so fitted and maintained, whilst the rollers of bowls arc. in motion, as to prevent access to the point of contact of the rollers or bowls.

SCHEDULE VI
(Prescribed under Rule 59)
WOOD WORKING MACHINERY
1. Definitions: For the purpose of this Schedule:
(a) 'woodworking machine' means a circular saw, band saw, planning machine, chain mortising machine or vertical spindle moulding machine operating on wood or cork;
(b) "circular saw" means a circular saw working in a bench (including 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; and
(d) "planning machine" means a machine for overhand planning or for thicknessing or for both operations.
2. Stopping and starting device: An efficient stopping and starting device shall be provided on every wood-working machine. The control of this device shall be in such a position as to be readily and conveniently operated by the person in charge of the machine.

3. Space around machines: The space surrounding every woodworking machine in motion shall be kept free from obstruction.
4. Floors: The floor surrounding every wood-working machine shall be maintained in good and level condition, and shall not be allowed to become slippery, and as far as practicable shall be kept free from chips or other loose material.
5. Training and supervision
(1) No person shall be employed at a woodworking 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 woodworking machine shall be fully and carefully instructed as to the dangers of the machine and the precautions to be observed to ensure 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 to the saw shall form an arc of a circle having a radius not exceeding the radius of the largest saw used on the bench;

(ii) the knife shall be maintained as close as practicable to the saw, having regard to the nature of the work being done at the time, and at the level of the bench table. The distance between the front edge of the knife and the teeth of the saw shall not exceed half an inch; and

(iii) for a saw of a diameter of less than 24 inches the knife shall extend upwards from the bench table to within 1 inch of the top of the saw, and for a saw of a diameter of 24 inches or over shall extend upwards from the bench table to a height of at least 9 inches.

(b) the top of the saw shall be covered by a strong and easily adjustable guard, with a flange at the side of the saw farthest from the fence. The guard shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw;

(c) the part of the saw below the bench table shall be protected by two plates of metal or other suitable material, one on each side of the saw; such plates shall not be more than six inches apart, and shall extend from the axis of the saw outwards to a distance of not less than 2 inches beyond the teeth of the saw. Metal plates, if not beaded, shall be of a thickness of at least 1/10 inch, or, if beaded, be of a thickness of at least 1/20 inch.

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

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

(a) both sides 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; and

(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 breadth of the cutting slot in the bench, and so constructed as to be easily adjusted both in a vertical and horizontal direction.

(3) The feed roller of every planning machine used for thicknessing except the combined machine for overhand, planning and thicknessing shall be provided with an efficient guard.

10. Vertical spindle moulding machines

(1) The cutter of every vertical spindle moulding machine shall be guarded by the most efficient guard having regard to the nature of the work being performed.
(2) The wood being moulded at a vertical spindle moulding machine, shall, if practicable, be held in a jig or holder of such construction as to reduce as far as possible the risk of accident to the worker.
11. Chain mortising machines

The chain of every chain mortising machine shall be provided with a guard which shall enclose the cutters as far as practicable.
12. Adjustment and maintenance of guards: The guards and other appliances required under this Schedule shall be:
(a) maintained in an efficient state;
(b) constantly kept in position while the machinery is in motion; and
(c) so adjusted as to enable the work to be done without unnecessary risk.
13. Exemptions: Paragraphs 6, 8, 9 and 10 shall not apply to any wood working machine in respect of which it can be proved that other safeguards are provided, maintained and used which render the machine as safe as it would be if guarded in the manner prescribed in this Schedule.

SCHEDULE VII
(Prescribed under Rule 59)
RUBBER MILLS
1. Installation of machines

Mills for breaking down, cracking, grating, mixing, refining and warming rubber or rubber compounds shall be so installed at the top of the front roll is not less than forty six inches above the floor or working level:
Provided that in existing installations where the top of the front roll is below this height, a strong, rigid distance-bar guard shall be fitted across the front of the machine in such a position that the operator cannot reach the nip of the rolls.
2. Safety devices
(1) Rubber and plastic 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;
(b) horizontal safety-trip rods or tight wire cables across both front and rear, which will, when pushed or pulled, operate instantly, to disconnect the power and apply the brakes or to reverse the rolls.
(2) Safety-trip rods or tight wire cables on rubber mills shall extend across the entire length of the face of the rolls and shall be located not more than sixty nine inches above the floor or working level.
(3) Safety-trip rods or tight wire cables on rubber mills shall be examined and tested daily in the presence of the Manager or other responsible person and if any defect is disclosed by such examination and rest the mill shall not be used until such defect has been remedied.

SCHEDULE VIII
(Prescribed under Rule 59)
SHEARS, SLITTERS AND GUILLOTINE MACHINES
1. Definitions

For the purpose of this Schedule,
(a) "guillotine" means a machine ordinarily equipped with straight, bevel-edged blade operating vertically against a stationary resisting edge and used for cutting metallic or non-metallic substances;
(b) "shears" or "shearing machine" means a machine ordinarily equipped with straight, bevel-edged blades operating vertically against resisting edge, or with rotary, overlapping cutting wheels and used for shearing metals or non-metallic substances;
(c) "slitter" or slitting machine" means a machine ordinarily equipped with circular disc-type knives and used for trimming or cutting into metal or non-metallic substances or for slitting them into narrow strips; for the purpose

of this schedule, this term includes bread or other feed slicers equipped with rotary knives or cutting discs.
2. Guillotine and Shears
(1) Where practicable, a barrier metal guard of adequate strength shall be provided at the front of the knife, fastened to the machine frame and shall be so fixed as would prevent any part of the operator's body to reach the descending blade from above. below or through the barrier guard or from the sides:

Provided that in case of machines used in the paper printing and allied industries, where a fixed barrier metal guard is not suitable on account of the height and volume of the material being fed, there shall be provided suitable starting devices which require simultaneous action of both the Wands of the operator or an automatic device which will remove both the hands of the operator from the danger zone at every descent of the blade.
(2) At the back end of such machines an inclined guard shall be provided over which the slit pieces would slide and be collected at a safe distance in a manner as would prevent a person at the back from reaching the descending blade.
(3) Power-driven guillotine cutters, except continuous feed trimmers, shall be equipped with:
(a) starting devices which require the simultaneous action of both hands to start the cutting motion and of at least one hand on a control during the complete stroke of the knife; or
(b) an automatic guard which will remove the hands of the operator from the danger zone at every descent of the blade, used in conjunction with one-hand starting devices which require two distinct movements of the device to start the cutting motion, and so designed as to return positively to the non-starting position after each complete cycle of the knife.
(4) Where two or more workers are employed at the same time on the same power-driven guillotine cutter equipped with two-hand control, the device shall be so arranged that, each worker shall be required to use both hands simultaneously on the safety trip to start the cutting motion, and atleast one hand on a control to complete the cut.

(5) Power-driven guillotine cutters, other than continuous trimmer, shall be provided, in addition to the brake or other stopping mechanism with an emergency device which will prevent the machine from operating in the event of failure of the brake when the starting mechanism is in the non-starting position.

3. Slitting machine

(1) Circulars disc-type knives on machines for cutting metal and leather, paper, rubber, textile or other non-metallic sub-stances shall. if within reach of operators standing on the floor or working level, he provided with guards

enclosing the knife edges at all times as near as practicable to the surface of the material and which may either.

(a) automatically adjust themselves to the thickness of the material; or

(b) be fixed or manually adjusted so that the space between the bottom of the guard and the material will not exceed 6 mm (1/4 inch) at any time.

(2) Portion of blades underneath the tables or benches of slitting machines shall be covered by guard.

4. Index cutter and Vertical Paper slotters: Index cutters, and other machines for cutting strips from the ends of hooks, 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 completed enclosed with hinged guards of sheet metal not less than I mm. (0.04 inch) in thickness or of other material of equal strength.

SCHEDULE IX

(Prescribed under Rule 62)

Class or description of hoist or lift	Requirement which shall not apply
I	II
Hoist or lifts mainly used for raising materials for charging blast furnaces or lime kilns	Sub-section I (b) in so far as it requires agate at the bottom landing, sub-section I (d);

Hoists not connected with mechanical power and which are not used for carrying persons.	Sub-section I (e), Sub-section I(b) in so far as it requires the hoist way of liftway enclosure to be so constructed as to prevent any person or thing from being trapped between any part of the hoist or lift and fixed structure or moving part; sub-section I(e)

SCHEDULE X

(Prescribed under Rule 66)

Persons	Maximum weight of material article, tool or appliance (In Kilograms)
(a) Adult male	55
(b) Adult female	30
(c) Adolescent male	30
(d) Adolescent female	20
(e) Male child	16
(f) Female child	14

SCHEDULE XI

Dry grinding of metals or articles of metal applied by hand to a revolving wheel or disc driven by mechanical power. Turning (external or internal) of nonferrous metals or of cast iron, or articles of such metals or such iron, where the work is done dry, other than precision turning where the use of goggles or screen would seriously interfere with the work, or turning by means of hand tools.

Welding or cutting of metals by means of an electric, oxy-acetylene or similar process.

The following processes when carried on by means of hand tools or other portable tools.

Fettling of metal involving the removal of metal.

Cutting out or cutting off cold rivets or bolts from boilers or other plant or from ships.
Chipping or scaling of boilers or ships plates.
Breaking or dressing of stone, concrete or slag.

SCHEDULE XII

1. Welding or cutting of metals by means of an electrical, oxy-acetylene or similar process.
2. All work on furnaces where there is risk of exposure to excessive light or 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.

SCHEDULE XIII

(Prescribed under Rule 70)

FIRST AID FIRE FIGHTING EQUIPMENTS

(1) The different type of fires and First Aid Fighting Equipments suitable for use on them are as under:

Class of Fire	Suitable type of Appliances
A. Fires in ordinary combustibles (wood, vegetable fibers, paper and the like);	Chemical Extinguishers of soda, acid Gas/expelled water and antifreeze types and water buckets.
B. Fires inflammable liquids, paints, grease, solvents and the like;	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 equipments	Chemical extinguishers of carbon dioxide and dry powder type and sand bucket.

(2) One 9 litre water buckets shall be provided for every 100 sq. m. of the floor area or part thereof and one 9 litre 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 this indicated above.

(3) Acceptable replacements for water buckets and water type extinguishers in occupancies were Class B fires are anticipated, are as under:

Acceptable Replacement	Buckets of water		Water type Extinguishers For each 9 Liters (or 2 gallons' extinguishers)
For one bucket	For two buckets		For each 9 litres, (or 2 gallons, extinguishers buckets
Dry Sand and Carbondioxide Extinguishers	1 bucket 3 Kg or 7 lbs	3 buckets 9 Kg. (or 20lbs) (In not less than 2extinguishers)	9 Kg (or 20 lbs).
Dry Powder	2 Kg (or 5lbs)	5 Kg (or 11 lbs in one or more extinguishers).	5 Kg (or 11 lbs)
Foam extinguishers	9 litres (or 2 gallons)	9 litres (or 2 gallons)	9 litres (or 2 gallons)

(4) The following provisions shall be complied with where Class E fires are anticipated,

(a) For rooms containing electrical transformers, switch gears, motors and/or other electrical apparatus only, not less than two Kg. Dry powder or Carbon Dioxide type extinguishers shall be provided within 15 m. of the apparatus.
(b) Where motors and/or other electrical equipment are installed in rooms other than those containing such equipment only one 5 kg. Dry powder or Carbon dioxide Extinguisher shall be installed within 15 m. of such equipment in addition to the requirement mentioned at (2) and (3) above. For this purpose, the same extinguisher may be deemed to afford protection to all apparatus within 15 m. thereof.
(c) Where electrical motors are installed on platforms, 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 metres, one extinguisher shall be acceptable as adequate for every 3 metres on the common platform. The above requirements will be in addition to the requirements mentioned at Item (2) and (3) above.
(5) The first aid firefighting 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 equipments.
(6) Selection of sites for the installation of first aid firefighting equipments:
(a) While selecting sites for first aid firefighting equipments, due consideration shall be given to the nature of the risk to be covered. The equipments shall be placed in conspicuous a position and shall be readily accessible for immediate use in all parts of the occupancy. It should always be borne in mind while selecting sites that first aid firefighting equipments are intended an only for use on incipient fires and their value 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 eligible due to passage of time fresh transfers of the same shall be obtained from the manufacturers of the equipments and affixed to the extinguishers.

SCHEDULE XIV
(Prescribed under Rule 70)
EQUIPMENT TO BE PROVIDED WITH TRAILER PUMP

For light trailer pump of a capacity of 680 litres/minute	
1	Armoured suction hose of 9 metres length; with wrenches.
1	Metal suction strainer.
1	Basket strainer.

1	Two-way suction collecting-head.
1	Suction adaptor.
10	Unlined or rubber lined 70mm delivery hose of 25 metres length complete with quick-release couplings.
1	Dividing breaching-piece.
2	Branch-piece with 15mm nozzles.
1	Diffuser nozzle.
1	Standpipe with blank cap.
1	Hydrant key
4	Collapsible canvas buckets
1	Fire hook (preventor) with cutting edge.
1	25mm manila rope of 30 metres length.
1	Extension ladder of 9 metres length (where necessary).
1	Heavy axe
1	Spade
1	Pick axe
1	Crowbar
1	Saw

1	Hurricane lamp
1	Electric lamp
1	Pair of rubber gloves

For large trailer pump of a capacity of 800 litres/minute

1	Armoured 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	Brench 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.
1	Saw

Note: If it appears to the Chief Inspector of Factories that in any factory the provision of breathing apparatus is necessary, he may, by order in writing, require the occupier to provide suitable breathing apparatus in addition to the equipment's for light trailer pump or large trailer pump, as the case may be.

SCHEDULE XV
(Prescribed under Rule 77)
FORMAT OF SAFETY DATA SHEET

<table>
<tr><td colspan="4">1. Chemical Identify:</td></tr>
<tr><td colspan="2">Chemical Name</td><td colspan="2">Chemical Classification</td></tr>
<tr><td colspan="2">Synonyms</td><td colspan="2">Trade Name</td></tr>
<tr><td>Formula</td><td colspan="2">C. A. S. No.</td><td>U. N. No.</td></tr>
<tr><td>Regulated Identification</td><td colspan="2">Shipping Name Codes/Label</td><td>Hazechem No</td></tr>
<tr><td colspan="4">Hazardous Waste I.D. No.</td></tr>
<tr><td colspan="4">Hazaradous Waste I.D. No.</td></tr>
<tr><td>Hazardous Ingredients</td><td>C.A.S. No.</td><td>Hazaradous Ingredients</td><td>C.S.A. No.</td></tr>
<tr><td colspan="2">1</td><td colspan="2">3</td></tr>
<tr><td colspan="2">2</td><td colspan="2">4</td></tr>
<tr><td colspan="4">2. Physical and Chemical Data</td></tr>
<tr><td>Boiling Range / Point</td><td>0C</td><td>Physical State</td><td>Appearance</td></tr>
<tr><td>Melting / Freezing Point</td><td>0C</td><td>Vapour Pressure Order @ 35 0C mm Hg</td><td>Odour</td></tr>
<tr><td>Vapour Density (Air = 1)</td><td colspan="2">Solubility in Water @30 0C mm Others</td><td>Others</td></tr>
<tr><td colspan="2">Specific Gravity Water = 1</td><td colspan="2">pH</td></tr>
<tr><td colspan="4">3. Fire and Explosion Hazard Data</td></tr>
<tr><td>Flammability Yes / No</td><td>LEL %</td><td>Flash point 0C</td><td>Autoignition Temperature 0C</td></tr>
<tr><td>TDG Flammability</td><td colspan="2">UEL%</td><td>Flash point 0C</td></tr>
<tr><td>Explosion Sensitivity to Impact</td><td colspan="2">Explosion Sensitivity to Static Electricity</td><td>Combustion products</td></tr>
<tr><td colspan="4">Hazardous Polymerisation</td></tr>
<tr><td>Combustible Liquid</td><td colspan="2">Explosive Material</td><td>Corrosive Material</td></tr>
</table>

Flammable Material	Oxidiser	Others
Pyrophoric Material	Organise peroxide	
4. Reactivity Data:		

Chemical Stability				
Incompatibility with other Materials				
Reactivity				
Hazardous Reaction Products				
5. Health Hazard Data:				
Routes of Entry				
Effects of Exposure / Symptoms				
Emergency Treatment				
TLV (ACGIH)	ppm. mg/m3	STEL ppm.		Mg / m3
Permissible Exposure limit LD	ppm. mg/m3	Odour LL.		Threshold ppm. Mg/m3 LD 50
NFPA Hazard Signals	Health	Flammability	Stability	Special
6. Preventive Measures:				
Personnel Protective Equipment's				
Handling and Storage Precautions				
7. Emergency and First Aid Measure:				
Fire		Fire Extinguishing Media		
Special Procedures				
Unusual Hazards				
Exposure		First Aid Measures		
Antidotes / Dosages				

Spills	Steps to be taken
Waste Disposal Method	
8. Additional Information / References:	
9. Manufacturer / Suppliers Data:	
Name of Firm	Contact Person in Emergency
Local Bodies involved	

Mailing Address Telephone/Telex Nos. Telegraphic Address	Standard Packing
Tremeard Details / Reference	
Others	
10. Disclaimer:	

SCHEDULE XVI
(Prescribed under Rule 84)
EQUIPMENT FOR OCCUPATIONAL HEALTH CENTRE IN FACTORIES

1. A glazed sink with hot and cold water always available.
2. A table with a smooth tap at least 180 cm x 105 cm
3. Means for sterlizing instruments.
4. A couch
5. Two buckets or container with close fitting lids
6. A kettle and spirit stove or other suitable means of boiling water.
7. One bottle of spirituous ammoniac aromations (120ml)
8. Two medium size sponges
9. Two kidney trays
10. Four cakes of toilet, preferably antiseptic soap.
11. Two clinical thermometers.
12. Two glass tumblers and two wine glasses.
13. Two tea spoons
14. Two graduated (120 ml) measuring glasses
15. One wash bottle (1000 cc) for washing eyes.
16. One bottle (one litre) carbolic lotion 1 in 20
17. Three chairs.
18. One screen
19. One electric hand torch,

20. An adequate supply of tetanus toxoid.
21. Coramine liquid (60 ml)
22. Tables-antihistaminic, antipasmodic (25 each)
23. Syringes with needles – 2 cc, 5 cc, and 10 cc
24. Two needle holders, big and small
25. Suturing needles and materials
26. One dissecting forceps.

27. One dressing forcep.
28. One scalpel
29. One stethoscope.
30. Rubber bandage- pressuring bandage.
31. Oxygen cylinder with necessary attachments.
32. One blood pressure apparatus.
33. One Patellar Hammer.
34. One Peak-flow meter for lung function measurements.
35. One Stomach wash set.
36. Any other equipment recommended by the factory Medical Officer according to specified need relating to manufacturing process.
37. In addition:
(1) For factories employing 51 to 200 workers:
1. Four plain wooden splints 900 mm x 100 mm x 6 mm
2. Four plain wooden splints 350 mm x 75 mm x 6 mm
3. Two plain wooden splints 250 mm x 50 mm x 12 mm
4. One pair artery forceps.
5. Injections-morphine, pathidine, atropine, adrenaline, coramine, novacan (2 each)
6. One pair of surgical scissors.
(2) For factories employing above 200 workers:
1. Eight plain wooden splints 900 mm x 100 mm x 6 mm
2. Eight plain wooden splints 350 mm x 75 mm x 6 mm.
3. Four plain wooden splints 250 mm x 50 mm x 12 mm
4. Two pairs of artery forceps.
5. Injections – morphine, pethedine atropine, adrenaline, coramine, novacan (4 each)
6. Two pair of surgical scissors.

SCHEDULE XVII
[Prescribed under Rule 103]
INDICATIVE CRITERIA AND LIST OF CHEMICALS
PART - 1
(a) Toxic Chemicals- Chemicals having the following values of acute toxicity and which awing 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 LD50 body weight of test animals)	Medium lethal concentration by in halation 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 in 20 $_{o}$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 Crete 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 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 - Trinitrophyl) Amine
44	Bis (2-Choroethyl) 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	Butoxy Ethanol
57	Butyl Glycidal Ether
58	Butyl Peroxyacetate, tert
59	Butyl peroxyisobutyrate, tert
60	Butyl peroxy isopropye carbonate, tert
61	Butyl Peroxymaleate, tert
62	Butyl Peroxypivalate, - tert
63	Butyl vinyl Ether
64	Butyl-n-Mercaptan
65	Butylamine
66	C9 - Aromatic Hydrocarbon Fraction
67	Cadmium and Compounds

68	Cadmium Oxide (fumes)
69	Calcium Cyanide
70	Captan

71	Captofol
72	Carbaryl (Sevin)
73	Carbofuran
74	Carbon Monoxide
75	Carbon Disulphide
76	Carbon Tetrachloride
77	Carbophenothion
78	Cellulose Nitrate
79	Chlorates (used in explosives)
80	Chlordane
81	Chlorfenvinphos
82	Chlorinated Benzenes
83	Chlorine
84	Chlorine Dioxide
85	Chlorine Oxide
86	Chlorine Triflouride
87	Chlonnequat Chloride
88	Chloroacetal Chloride
89	Chloroacetaldehyde
90	Chloroaniline, -2
91	Chloroaniline, -4
92	Chlorobenzene
93	Chlorodiphenyl
94	Chloroepoxypropane
95	Chloroethanol
96	Chloroethyl Chloroformate

97	Chlorofluorocarbons
98	Chloroform
99	Chloroformyl, -4, Morpholine
100	Chloromethane
101	Chloromethyl Ether
102	Chloromethyl Methyl Ether
103	Chloronitrobenzene

104	Chloroprene
105	Chlorosulphonic Acid
106	Chlorotrinitrobenzene
107	Chloraxuron
108	Chromium and Compounds
109	Cobalt and Compounds
110	Copper and Compounds
111	Coumafuryl
112	Comaphos
113	Coumatetralyl
114	Cresols
115	Crimidine
116	Cumene
117	Cyanophos
118	Cyanothoate
119	Cyanuric Flouride
120	Cyclohexane
121	Cyclohexanol
122	Cycloheximide
123	Cyclohexanone
124	Cyclopentadiene
125	Cyclopentane

126	Cycloteiramethylenteliaritramine
127	Cyitrimenthlyene Trinitramaine
128	DDT
129	Decabromodipheyl Oxide
130	Demeton
131	Di-lsobutyl Peroxide
132	Di-n-propylperoxydicarbonate
133	Di-Sec-Butyl Peroxydicarbon- ate
134	Dialifos
135	Diazodinitrophenol
136	Diazomethane

137	Dibenzyl Peroxydicarbonate
138	Dichloroacetylene-0
139	Dichloroobenzene-0
140	Dichlorobenzene-P
141	Dichloroethane
142	Dichloroethyl Ether
143	Dichlorophenol, -2, 4
144	Dichlorophenol, -2, 6
145	Dichlorophenoxy Acetic Acid, -2, 4(2, 4-D)
146	Dichloropropane, -1, 2
147	Dichlorosalicylic Aicd, -3, 5
148	Dichlorvos (DDVP)
149	Dicrotophos
150	Dieldrin
151	Diepoxybutane
152	Diethyl Peroxydicarbonate
153	Diethylene Glycol Dinitrate
154	Diethlylene Triamine

155	Diethyleneglycol Butyl Ether Diethyleneglycol
156	Butyl Acetate
157	Diethylenetriamine (DETA)
158	Diglycidyl Either
159	Dithydroperoxypropane, -2, 2
160	Di-isobutyryl Peroxide
161	Dimefox
162	Dimethoate
163	Dimethyl Phosphoramidocy-nadic Acid
164	Dimethyl Phthalate
165	Dimethylcarbonyl
166	Dimethylnitrosamine
167	Dinitrophenol, Salts
168	Dinitrotoluene
169	Dintro-o-Cresol

170	Dioxane
171	Dioxathion
172	Dioxolane
173	Diphacinone
174	Diphosphoramide Octamethyl
175	DipropyleneGlycolmethylether
176	Disulfoton
177	Endosulfan
178	Endrin
179	Epichlorohydrine
180	EPN
181	Epoxypropane, 1, 2
182	Ethion
183	Ethyl Carbamate

184	Ethyl Ether
185	Ethyl Hexanol, -2
186	Ethyl Mercaptan
187	Ethyl Methacrylate
188	Ethyl Nitrate
189	Ethylamine
190	Ethylene
191	Ethylene Chlorohydrine
192	Ethylene Diamine
193	Ethylene Dibromide
194	Ethylene Bichloride
195	Ethylene Glycol Dinitrate
196	Ethylene Oxide
197	Ethyleneimme
198	Ethylthiocyanate
199	Fensulphothion
200	Fluenetil
201	Fluoro, -4, -2
202	Fluoracetic Acid and Salts, Esters, Amides

203	Fluorocortonic Acid, -4, Salts, Esters, Amides
204	Fluorobutyric Acid, -4, and Salts, Esters, Amides
205	Formaldehyde
206	Glyconitrile (Hydroxyaceton- itirile)
207	Guanyl-1, - 4 - Nitrosamin-oguanyl 1 - Tetrazene ,
208	Heptachlor
209	Hexachloro Cyclopentadiene
210	Hexachlorocyclohexane
211	Hexachlorocyclomethane
212	Hexachlorodibenzo- p-Dioxin, 1, 2, 3, 7, 8, 9,

213	Hexafluoropropene
214	Hexamethylhosphoramide
215	Hexamethyl,-3, 3, 6, 9, 9-1, 2, 5, 5-Tetraoxacyclononane
216	Hexamethylendiamine
217	Hexane
218	Hexanitrostilbene, -2,2,4,4,6,6
219	Hexavalent Chromium
220	Hydrazine
221	HydrazineNitrate
222	Hydrochloric Acid
223	Hydrogen
224	Hydrogen Bromide (Hydrob-romic Acid)
225	Hydrogen Chloride (Liquefied Gas)
226	Hydrogen Cyanide
227	Hydrogen Fluoride
228	Hydrogen Selenide
229	Hydrogen Sulphide
230	Hydroquinone
231	Iodine
232	Isobenzan
233	Isodrin
234	Isophorone Diissocyanate
235	Isopropyl Ether

236	Juglone (5- Hydroxynapht-halane-1, 4-Dione
237	Lead Azide
238	Lead 2, 4, 6 - Trinitroresor- cinoxide (Lead Stypnnate)
239	Lead Azide
240	Leptophos
241	Lindane

242	Liquefied Petroleum Gas (LPG)
243	Maleic Anhydride
244	Manganese & Compounds
245	Mercapto Benzothiazole
246	Mercury Alkyl
247	Mercury Fluminate
248	Mercury Methyl
249	Methacrylic Anhydride
250	Methacrylonitrile
251	Methacryloyl Chloride
252	Methamidophos
253	Methanesuphonyl Fluoride
254	Methanthiol
255	Methoxy Ethanol (2-Methyl Cellosolve)
256	Methoxycthylmercuric Acetage
257	Methyl Acrylate
258	Methyl Alcohol
259	Methyl Amyiketone
260	Methyl Bromide (Bromomethane)
261	Methyl Chloride
262	Methyl Chloroform
263	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- Tetranitroanaline
281	Naphtha (Coal Tar)
282	Naphtyiamine, 2
283	Nickel & Compounds
284	Nickel Tetracarbonyl
285	Nitroanilline-O
286	Nitroaniline-P
287	Nitrobenzene
288	Nitrochlorobenzene-P
289	Nitrocyclohexane
290	Nitroethane
291	Nitrogen Dioxide
292	Nitrogen Oxides
293	Nitrogen Triflouride
294	Nitroglycerine
295	Nitrophenol-P
296	Nitropropane-1
297	Nitropropane-2
298	Nitrosodimethhylamine
299	Nitrotoluene
300	Octabromophenyl Oxide
301	Oleum

302	Oleylamine
303	OO - Diethyl S- Ethysulphonlmethyl
304	OO - Diethyl S- Ethylsulphonymethyl Phosphorothioate
305	OO - Diethyl S- Ethylthiomethyl Phosphe Rothioate
306	OO - Diethyl S- Isopropylthiomethyl Phosphororidithioate
307	OO-Diethyl S-prophylthiomethyl Phophorodithioate
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	Propanesusltone-1, 3
354	Propen-1, 2-Chloro-1, 3-Diol- Diacetate
355	Propylene Oxide
356	Propyleneimine
357	Pryazoxon
358	Selenium Hexaflouride

359	Semicarbazide Hydrohloride
360	Sodium Arsenite
361	Sodium Azide
362	Sodium Chlorate
363	Sodium Cyanide
364	Sodium Picramate
365	Sodium Selenite

366	Styrene, 1, 1, 3, 2- Tetrachloroe thane
367	Sulfotep
368	Sulphur dichloride
369	Sulphur Dioxide
370	Sulphur Trioxide
371	Sulphuric Acid
372	Sulphoxide, 3 Chloropropyloctyl
373	Tellurium
374	Tellunium Hexaflouride
375	Tepp
376	Tebufos
377	Tetrabromobisphenol-A
378	Tetrachloro, 2, 2, 5, 6, 2, 5-Cyclohexadiene-1, 4-Dione
379	Tetrachlorodibenzo-p Dloxin,2,3,7,8 (TCDD)
380	Tetraethyl Lead
381	Tetrafluoroethane
382	Tetramethyllenedisulphotet-ramine
383	Tetramethyl Lead
384	Tetranitromethane
385	Thallium and Compounds
386	Thionazin
387	Thinoyl Chloride

388	Tirpate
389	Toluene
390	Toluene 2-4-Diicocyanate
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 XVIII

[Prescribed under Rule 103]

(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.

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

Sr.No	Chemicals		Threshold Quantities (tonnes)
For application of rules 61-UB,61-UC, 61-UE and 61-UF		For application of Rules 61-UH to 61-UM	
1	2	3	4
1.	Acrylonitrile	350,000	5,000,000
2.	Ammonia	60,000	600,000
3.	Ammonium Nitrate (a)	350,000	2500,000
4.	Ammonium Nitrate Fertilizers (b)	1,250,000	10,000
5.	Chlorine	10,000	25,000
6.	Flammable gases as defined in Schedule 1, paragraph (b) (i)	50,000	3,000,000
7.	Highly flammable liquids as define in Schedule 1 paragraph (b) (ii)	10,000,000	10,000,000
8.	Liquid Oxygen	200,000	2,000,000
9.	Sodium Chlorate	25,000	250,000

10.	Sulphur Dioxide	20,000	500,000
11.	Sulphur Trioxide	15,000	100,000
12.	Carbonyl Chloride	0.750	0.750
13.	Hydrogen Sulphide	5,000	50,000
14.	Hydrogen Fluroide	5,000	50,000
15.	Hydrogen Cyanide	20,000	200,000
16.	Carbon di-sulphide	20,000	200,000
17.	Bromine	50,000	500,000
18.	Ethylene Oxide	50,000	500,000
19.	Propylene Oxide	5,000	50,000
20.	2-Propenal (Acrolein)	20,000	200,000
21.	Bromomethane (Methyl bromide)	20,000	200,000
22.	Methyl Isocynate	0.150	0.150

23.	Tetraethyl lead or Tetramenthyl Lead	5,000	50,000
24.	1, 2 Dibromoethane (Ethylene dibromide)	5,000	50,000
25.	Hydrogen Chloride (Liquid Gas)	25,000	250,000
26.	Diphenyl Methane Diisocynate (MDI)	20,000	200,000
27.	Toluene di-isocynate (TDI)	10,000	100,000

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 XIX

[Prescribed under Rule 103]

(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

Sr. No.	Chemicals	Threshold Quantities	CAS Number*
For application of Rules 61-UC, 61-UE, 61-UF and 61-UK and 61-UM		For application of Rules 61-UH to 61-UJ	
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.	
	Arsine (Arsinic hydride)	10 kg.	7784-42-1

7.			
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-chioroethyl) 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.	Diallfos	100 kg.	10311-84-9
26.	Co-Diethyl S-ethylsulphonylmethyl Phosphorothloate	100 kg.	2588-05-8
27.	Co-Diethyl S-ethyisulphnylmethyl 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.	Fenaulfothion	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.	Fluoroaceti acid, amidea	1 kg.	

45.	4-Fluorobutyricadd	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-Flouro-2-hydroxy-butyric acid	1 kg.	
54.	4-Fluoro-2-hyroxy-butyric acid,salts	1 kg.	
55.	4-Flouro-2-hydroxy-butyric acid, esters	1 kg.	

56.	4-Flouro-2-hyroxy-butyric acid, amides	1 kg.

57.	Glycolonitrile(hyroxyacetonitrile)	100 kg.	107-16-4
58.	1, 2, 3, 7, 8, 9 - Hexachiorodibenzo p-dioxin	100 kg.	19408-74-3
59.	Hexamethylpho-sphoramide		680-31-9
60.	Hydrogen selenide		7783-07-5
61.	Isobenzan	100 kg.	297-78-9
62.	Isodrin	100 kg.	465-73-6
63.	Juglone (5-Hydroxynaphtha-lene- 1, 4-dione)	100 kg.	481-39-0
64.	4, 4' - Methylenebis (2- chloroaniline)	10 kg.	101-14-4
65.	Methyl isocyanite	150 kg.	624-83-9
66.	Mevinphos	100 kg.	7786-34-7
67.	2-Naphthylamine	1 kg.	91-59-8
68.	Nickel metal, Oxides, carborates, sulphine, as powers		1 t

69.	Nickel tetracarbonyl		10 kg.	13463-39-3
70.	Oxdisulfoton		100 kg.	2497-07-6
71.	Oxygen difluroide		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.	Pentaboran		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-Dichorophenyl)-3- triazeetio carboxamide)	100 kg.	5836-73-7
82.	1, 3 - Propanesuilton	1 kg.	1120-71-4
83.	1 -Propen-2-choro-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	1 kg.	80-12-6

94.	Thionazim	100 kg.	297-97-2
95.	irpate (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-l, 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.	Alllyl 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	7446-H-9
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. Ammonium 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 peroxymaleate (concentration >= 80%)		5 t	1931-62-0
133.	Tert-Butyl peroxypivalate (concentration >= 77%)		50 t	927-07-1
134.	Dibenzyl peroxydicarbinate (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	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-trinito 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' -Hexamnitrostilbene	50 t	20062-22-0
162.	Hydrazine nitrate	50 t	13464-97-6
163.	Lead azide	50 t	13424-46-9
164.	Lead styphnate (lead 2, 4, 6- trinitroresorcinoxide)	50 t	15245-44-0
	Mercury fluminate	10 t	628-86-4

165.			
166.	N-Methyl-N, 2, 4, 6 Tetranitroanililne	50 t	479-45-8
167.	Nitrogylcerine	10 t	55-63-0
168.	Pentarythritol tetranitrate	50 t	10t 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	82-71-39
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
	Trinitrobenzoic Acid	50 t	28905-71-7

177.				
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 1

Sr.No	Chemicals	Threshold Quantities (tonnes)	
For application of Rules 61-UC, 61-UE, 61-UF and 61-UK and 61-UM		For application of Rules 61-UH to 61-UJ	
1	2	3	4
1.	Group-5 Flammable Chemicals 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 in 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 hazard	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 XX

[Prescribed under Rule 103]

INDUSTRIAL INSTALLATION WITHIN THE MEANING OF SUB-RULE 1(B)(I)

1. Factories involving in 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. Factories involving for distillation, refining or other processing of petroleum or petroleum products.
3. Factories involving in total or partial disposal of solid or liquid chemicals by incineration or chemical decomposition.
4. Factories involving in production, processing, or treatment of energy gases for example LPG, LNG, SNG.
5. Factories involving in dry distillation of coal or lignite.
6. Factories involving in production of metals or non-metals by a wet process or by means of electrical energy.

SCHEDULE XXI
[Prescribed under Rule 103]
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) Nature of industrial activity (Mention what is actually manufactured, stored etc.)
(iii) National Industrial Classification 1987 at the Four digit level
2. Type of major accident

Explosion Fire Emission of Hazardous Chemical

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…… casualties …….killed…… injured……..poisoned.....persons exposed to the major accident…….material damage…….damage is still present……..damage no Longer exists.
b. Outside the establishment …….. casualties ……. Killed ……. Injured …… Poisoned ……. Persons exposed to the major accident …….material damage …….. damage to environment ……. damage is still present ……. 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 XXII
[Prescribed under Rule 103]
INFORMATION TO BE FURNISHED FOR THE NOTIFICATION OF 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 XXIII
[Prescribed under Rule 103]
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) Quick relief system.
(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 XXIV
[Prescribed under Rule 103]
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
(b) 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 outside.
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 instruments, control units and servicing of such equipment's,
(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.

SCHEDULE XXV
[Prescribed under Rule 127]
1. Manager
2. Assistant Manager
3. Chief Engineer
4. Chief Chemists
5. Departmental head
6. Electrical/Mechanical Engineers (Maintenance)
7. Labour Officer
8. Overseers
9. Boiler in-charge
10. Technical Experts
11. Head Store Keepers
12. Laboratory In-charge
13. Power House Superintendent

14. Assistant Power House Superintendent : Working in power house
15. Workshop in-charge
16. Four men
17. Inspector Working in Engg.
18. Chargeman Work shop
19. Workshop Overseers/or works in-charge Working

in spinning and weaving factory.
20. Head Electricians
21. Supervisors
22. Jobbers
23. Overseers
24. Weaving and Spinning Masters
25. Foremen Mecanics.

SCHEDULE XXVI					
Sl. No.	Section of the Act empowering grant of exemption	Class of factories	Nature of work exempted	Extent of Exemption	Conditions
1	2	3	4	5	6
1.	64(2)(a) and 64(3)	All factories	Urgent repairs	Sections 51, 52, 54, 55, 56 and 61	(i) No worker shall be employed on such repairs for more than 15 hours on any working day, 39 hours during any three consecutive days or 60 hours during each period of seven consecutive days, commencing from his first employment on such repairs. (ii) Interval of at least half an hour for food and rest shall be given after a period of work not exceeding six hours on each working day to all workers employed on such works. (iii) Within 24 hours of the commencement of the work, a notice shall be sent to the Inspector describing the nature of the urgent repairs and the period probably required for its completion. A copy of the above notice shall be affixed on a conspicuous place near the main entrance to the factory before

					the workers are put on urgent repairs.

(iv) Exemption from the provisions of section 54 shall apply only in the case of adult male workers.
(v) Shall send weekly, during the continuance of the work of urgent repairs statement giving the names of all persons who have worked for more than 9 hours in any one day or more than 48 hours of the preceeding week in a factory, such statement shall also show total number of hours worked each day of the week.
(vi) If the Inspector is f the opinion that any work being carried on or likely to be carried on in a factory as “Urgent Repairs” is manager and order to that effect and the manager shall in respect of such work not allowed any worker to work in contravention of the provision of Section 51, 52, 54, 55 and 56 and shall comply with section 61.

2.	64(2)(b) and 64(3)	All factories	(1) Work in mechanic shop, the smithy or in connection with foundary mill gearing the electric driving or lighting apparatus the mechanical or electrical lifts of.	Section 51, 54, 55, and 61	(i) No worker shall be employed for more than 54 hours in any one week. The total number of hours of overtime work done by any workers shall not exceed 50 in any one quarter. (ii) No worker shall be employed for more than 10 hours in any day.

(2) The steam or water pipes or pump of a factory or work on extrusion machines. (3) Work of examining for repairing any machinery or other parts of the plant which is necessary for carrying on the work in a factory. (4) Work in Boiler houses and engine rooms such as lighting fires in order to raise steam or generate gas preparatory to the commencement of regular work in the factory or work on extrusion machines.	(iii) Interval of at least half an hour for a rest shall be given on each working to all workers employed in such work. (iv) The spread over including interval for rest shall not exceed 12 hours on any one day.

3.	64(2)(c) and 64(3)	All factories	Work performed by factories drivers on lighting, ventilating and humidifying apparatus, work performed by fire pumpmen, work of loading unloading or transporting raw materials in factories where such work is intermittent and	Section 51, 54, 55, 61	As at (i), (ii) (iii) and (iv) against entry (2)

mainly outside the factory premises					
4.	64(2) and 64 (3)	Electric supply undertaking generating electricity.	Work performed by workers on operation of boiler, prime movers, auxiliaries and switch gear.	Section 51, 54, 55, and 61	(i) The total number of hours of over time work of any workers shall not exceed 50 for any one quarter. (ii) No worker shall be employed for more than 14 consecutive days without rest period of at least 24 consecutive hours. Holidays so lost shill be fixed in accordance with Section 53 of the Act. (iii) No worker, shall be allowed to work or for more than 10 hours on any one day or for more than 56 hours in one week. (iv) in the absence of a worker who has failed to report for duty a shift worker shall be allowed to work the whole or part of a subsequent Shift provided that: (a) the next shift or shift worker shall not commence before a period of 8 hours had elapsed. (b) Within 24 hours of the; commencement of the subsequent shift notice shall be sent the Inspector describing

					the circumstances under which the worker is requited to work in the subsequent shift.

(v) Interval of at least half an hour for rest shall be given on each working day to all workers employed such work. (vi) The exemption shall be restricted to only adult workers.		
Electrical Transforming Factories.	Work performed by workers on operation of transforming plant, Switches and synchronous condensers.	Section 51, 54, 55 and 61
Water works, Sewage Disposal works and water supply pumping station	Work performed by workers on operation of generations and pumping plant.	Section 51, 54, 55 and 61

Vegetable oil Hydrogeneration factories		Work of refining, bleaching, filtering, generation of hydrogen, hydrogeneration and deodorising processes, compressing of oxygen, charging of cylinders, work on power equipment.	
Chemical factories.	All continuous process		Section 51, 54, 55 and 61
Oil Mills	Work in connection with pressing of oil, oil refining soap making and the work in power houses	Section 51, 52, 54, 55 and 61	As at (i) to (vi) above against this entry.

Potteries	Work of firemen employed in pottery kilns		Section 51, 52, 54, 55 and 61
Production and compression of oxygen and Acetyelene Gas	Work on attending to generators and compressors.		Section 51, 52, 54, 55 and 61
carbonic Acid gas factories	Work on the production of Carbonic Acid gas	Section 51, 52, 54, 55 and 61	Such worker shall be allowed to take light refreshment or meals at the place of their employment in room specially reserved for the purpose or in a canteen provided in the factory once during any period exceeding four hours.
Iron and steel smelting and rolling factories and similar plants attached to any other factory	Operation of blast furnace steel melting furnaces rolling mills		Section 51(1)

Glass factories iron and steel foundries including such plants attached to other factories	All work on attending furnaces operation of cupola or steel melting furnaces including other work connected therewith and incident thereto.	Section 52, 55	As at (ii) and (iv) above against this entry such workers shall be allowed to take light refreshment or meals at the place of their employment in a room specially resrved for the purpose or in a canteen prvided in the factory once during any period exceeding four hours.
Paper factories	Work on choppers, digesters, kneaders, strainers and washers, beaters, paper making machines, pumping	Section 52, 54, 55	As at (ii) above against this entry (ii), (iii) against entry (2)

plant, reelers, cutters and power plant			
Rubber Factories or department doing Mfg. of Rubber	All work on curing process	Section 55	As at (iii) against entry (2)
Dyeing and bleaching factories or Departments cloth Printing or department	Work performed by kiermen	Section 51, 52, 54, 55 and 61	As at (i) to (iv) against entry (4)
Of factories and bleaching finishing mercerizing and dyeing department of factories	All work.	Section 51, 52, 54, 55 and 61	
Factories or Departments of factories charging electric accumulation	Operation in connection with electric accumulation	Section 51, 52, 54, 55 and 61	

Flour mills. Tenneries Hides amd skin factories	All continuous process work. Salting and sun drying of hides and skins skin curing and dry slating of skins	Section 55 Section 51, 52, 54, 55 and 61	As at (iii) against entry (2)

(i) No worker shall be employed for more than 14 consecutive days without holiday of 24 consecutive hours.
(ii) The total number or hours of over time work, Shall not exceed 50 in any one quarter.
(iii) All workers working in excess of 48 hours per week in a factory shall be paid in respect of such additional hours at the rate of twice the ordinary rate in accordance with the provisions of section 59 of The Act.
(iv) Every worker shall be given a compensatory. 'holiday in accordance with section 53 of the Act.
(v) Interval of At least half an hour food and rest shall be given to all the workers employed on such works.

5.	64(2)(c) and 64 (3)	Dairies	All work	Section 52	The work of such workers on Sunday shall not exceed 4 hours
6.	64(2)(h) and 64 (3)	Engine room and boiler houses	Workers employed on operation of engine and boilers	Section 52	As at (ii) against entry (4)
7.	64(2)(i) and 64(3)	All Newspaper	Teleprinter Service	Section 51, 52, 54, 55 and 61	As at (i) (ii) (iii) (iv) against entry (2)
8.	64(2)(i)	All factories	Loading unloading of railway wagons lorries of trucks	Section 51, 54 and 61	As at (i) (ii) (iii) (iv) against entry at item (4) 64(2)(d) and 64(3)

(i) No worker shall be allowed to work for more than 60 hours in a week
(ii) The spread over inclusive of interval for rest shall not exceed 12 hours in any one day.