

4.4.3 Maslow's Theory of Motivation and its Significance

(S-09, W-09, W-10, M-11) (4M)

Maslow has set up a hierarchy of five basic needs. He said that a person satisfies his needs in this order. According to him a person does not feel the second need until the first have been satisfied or the third until the second has been satisfied, and so on.

Maslow's basic needs are as follows :

- 1. Physiological Needs** : These are biological needs. These include the most basic needs that are vital to survival, such as the need for air, food, water, shelter, warmth, sex, sleep, and excretion.

A person satisfies first of all these needs, e.g. a hungry person puts his full efforts for earning bread; until his hunger is satisfied he does not feel the higher needs.

2. **Safety Needs** : Once physiological needs are met, one's attention turns to safety and security in order to be free from the threat of physical and emotional harm. Safety needs consists of security of body, employment, family, resources, health, property, insurance etc.

According to Maslow's hierarchy, if a person does not feel safe, higher needs will not receive much attention.

3. **Social Needs** : When the physiological and safety needs are satisfied, social needs can emerge. These are related to interaction with people and include needs for friendship, belonging, love and affection. Maslow considered these needs to be less basic than physiological and security needs.

4. **Esteem Needs** : After the first three needs have been satisfied, esteem needs becomes increasingly imperative. Esteem needs may be classified as internal or external. Internal esteem needs are those related to self-esteem such as self respect and achievement. External esteem needs are those such as social status and recognition, attention, reputation, personal worth etc.

Humans have a need for self-respect, and respect from others. If these needs are satisfied, he or she feels self-confident and valuable. If these needs are not satisfied the person feels inferior, weak, helpless and worthless.

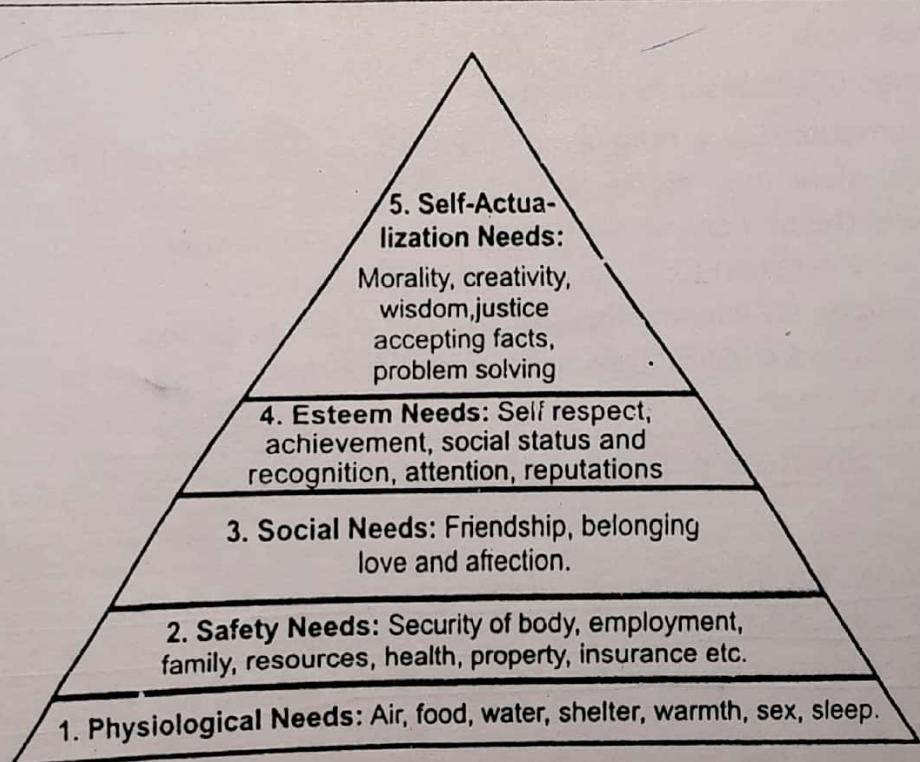


Fig. 4.4: Maslow's Hierarchy of Needs

5. Self-Actualization Needs : When all of the foregoing needs are satisfied, then and only then are self-actualization needs activated. These needs are related to morality, creativity, problem solving, wisdom, accepting facts, justice and the like.

It is the quest of reaching one's full potential as a person. According to Maslow, only a small percentage of the population reaches the level of self-actualization.

Significance of Maslow's Theory

If Maslow's theory holds, then there are opportunities for management to motivate employees as per given below :

- 1. Physiological Needs :** Management should provide lunch breaks, rest breaks, proper ventilation, proper temperature, drinking water, toilets and adequate wages to purchase the essentials of life.
- 2. Safety Needs :** Management should ensure safe working environment, provide safety equipments, retirement benefits (gratuity, pension, provident fund etc.), insurance and job security.
- 3. Social Needs :** Management should create a sense of community via team-based projects and social events, annual get-togethers, sports etc.
- 4. Esteem Needs :** Management should recognize achievements (by promotions, awards, public recognition etc.) to make employees feel appreciated and valued. Offer job titles that convey the importance of the position (for example workers may be called associates; head clerk may be called administrative officer).
- 5. Self-Actualization Needs:** Management must provide employees a challenge and the opportunity to reach their full career potential.

4.5 SAFETY MANAGEMENT

Safety is an integral part of the responsibilities of every manager and employee in an organization. The major responsibilities are inherent in the responsibilities and authorities of staff and line managers who design and implement the organizational/operational system within which employees must perform. Therefore it is important to lay stress on safety during training. The employees are made aware of various accidents, their causes and safety procedures to be followed to avoid accidents and their ill effects.

4.5.1 Causes of Accidents

(S-09, W-09, S-10, S-11) (3M)

Accident : Accident is an unforeseen incident that is not scheduled or planned and causes injury to employees or damage to property.

The various causes of accidents can be grouped in to three categories-

- (a) Technical causes
- (b) Environmental causes and
- (c) Personal causes

(a) Technical Causes : These are related to the machines/devices which the employees use.

1. Defective agencies or devices (machines, prime movers, boilers, electrical apparatus etc.)
2. Piling of material, over-loading of devices etc.
3. Improper machine guarding.
4. Improper material handling.
5. Protruding parts.
6. Chemicals leaking through valves.
7. Unsafe apparel or dress.

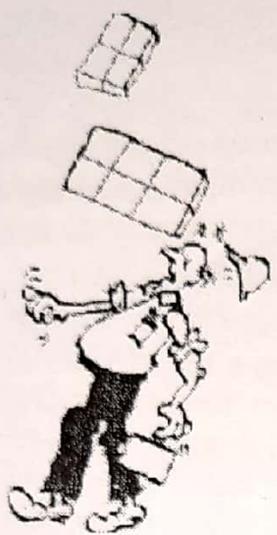
(b) Environmental causes : These are related to the working conditions in which the employees have to perform their jobs.

1. Too low or too high temperature.
2. Improper illumination.
3. Very high humidity.
4. Improper ventilation.
5. Bad lay out.
6. Noise, ~~bad~~ odour and flash coming from the nearby machine or process.
7. Poor housekeeping.

(a) Personal causes :

These are related to the employees themselves.

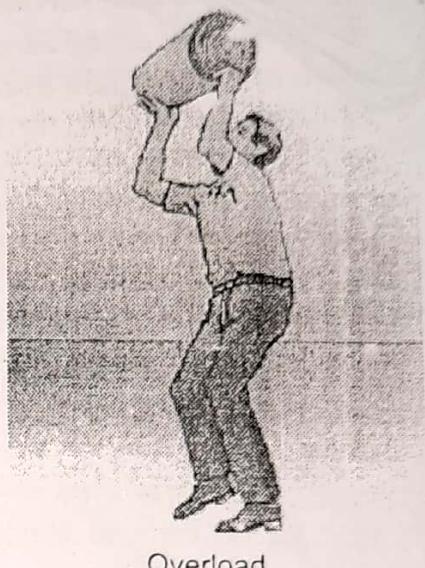
1. Operating without authority.
2. Immature age of workers.
3. Operating at unsafe speeds.
4. Lack of knowledge and skill.
5. Unsafe loading, placing or mixing.
6. Improper attitude towards work.
7. Taking unsafe positions or postures while working.
8. Non use of safety devices.
9. Bodily defects.
10. Day-dreaming and inattentiveness.
11. Improper use of tools.
12. Fatigue due to inadequate rest, pauses or breaks between the working hours.



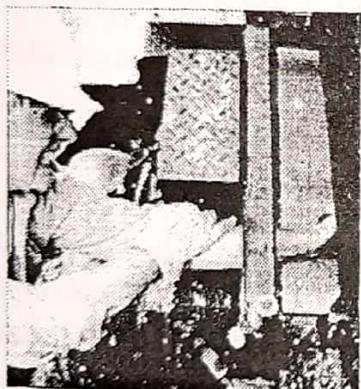
Pilling of material



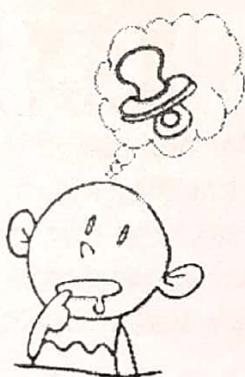
Oil spilling



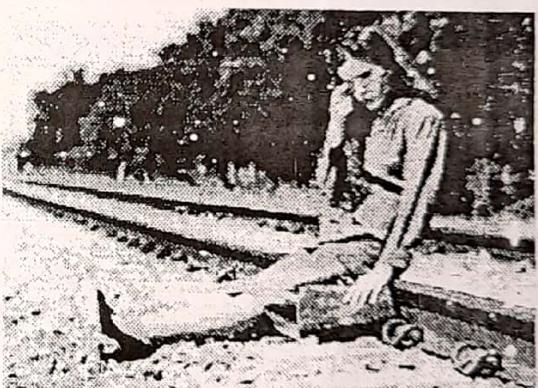
Overload



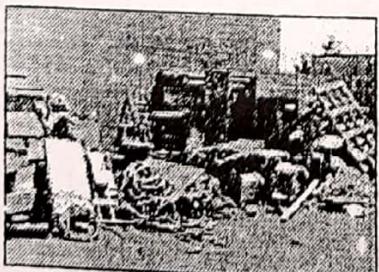
Improper machine guard



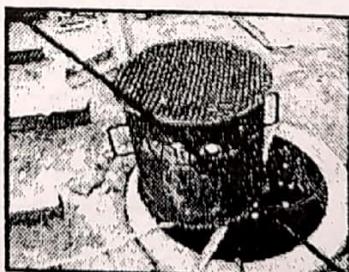
Day dreaming



Unsafe positon



Poor housekeeping



Pit or opening in floor

4.5.2 Safety /Preventive Measures to avoid Accidents

1. Provide safety guards :

- All moving parts of machines and equipments should be guarded.
- All transmission components like belts, pulleys, gears, shafts, clutches, couplings, flywheels etc. must be placed in fully enclosed frames.

(W-Q9, W-10) (4M)

2. Regular Maintenance :

To avoid accidents it is essential to maintain all machines, equipments in good working conditions. Also regular inspection of control devices such as governors, flywheels, safety valves and the like is essential.

3. Prevention of Fire :

- Flammable material should be kept away from all possible ignition sources.
- Containers for inflammable liquids should be completely air tight.
- While transferring flammable liquid/gas from one vessel to another the two should be electrically bonded in order to prevent a spark.
- Regular fire drills must be conducted.

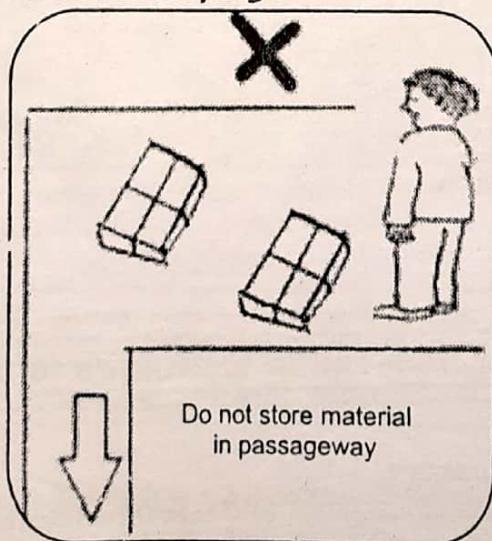


- Employees need to be informed about –
 - Building alarms and what they mean.
 - Various exit routes in case the first choice is blocked.
 - Where fire extinguishers are located.
 - Where to gather or seek shelter during an emergency.

4. Training of Workers :

Workers should be trained in use of safe working methods. The equipments must be operated by qualified operators and they must know what to do if something happens to the equipment.

5. Good order and good housekeeping :



- (a) If there is specific place for everything many accidents could be avoided.
- (b) All objects obstructing passage ways should be removed.
- (c) Passage ways should be clearly marked off and should never be used for storing or loading and unloading of material.
- (d) Materials should be properly stored up to permissible height only.
- (e) Waste materials should be promptly removed.
- (f) Dry and clean store rooms should be provided for electric hand tools.

6. Working Clothes :

It is absolutely essential to ensure that workers use suitable clothes while at work. There should be no loose straps or strings. Loose or torn clothes and tie should not be worn while working on machines. Shirts with short sleeves should be preferred. Women should wear caps.

7. Personal protective devices :



Workers should be provided personal protective devices like-masks, goggles, gloves, safety shoes, helmets, ear plugs etc. where ever needed.

8. General safety colour codes should be used to identify danger spots, traffic lanes, fire protection equipments, exits etc.

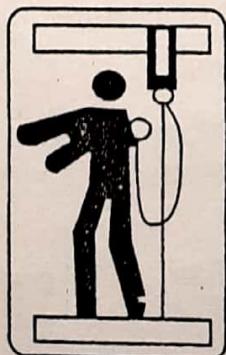


9. Notices/signs like Danger, No smoking, Men at work, High voltage and so on at appropriate places should be put up.

10. Adequate Lighting :

Proper lighting helps to reduce many accidents like striking, falling, slipping etc.

11. Fall Protection :



- Industry protection must be utilized for heights above 4 feet and for construction the minimum height is 6 feet.
- At the heights cited above, the worker must wear a certified harness that is tied off to a secure anchor point.

12. To Reduce Electrical Injuries :



- Current limiting fuses or circuit breakers should be installed.
- Training of personnel about hazards is essential.
- Barriers around the area of exposed live electricity must be installed.
- Workers should wear personal protective equipment (PPE). This equipment could include fire resistant (FR) clothing, FR rated face shields and hoods, voltage rated gloves and a myriad of other PPE.

13. Creation of Safety Propaganda :

Propaganda may be carried on by means of posters, films, slides, safety competitions, training and so forth.

4.6 INTRODUCTION, OBJECTIVES AND FEATURES OF INDUSTRIAL LEGISLATION

4.6.1 The Factories Act, 1948

The Act extends to the whole of India. It came into force on the 1st day of April, 1949, to protect the weaker sections of the society particularly working class. The Act ensures that workers are given such amenities which will induce them to devote their physical energy, intelligence and enthusiasm to their work. Better amenities improve efficiency and job satisfaction; also it helps in reducing accidents to a great extent.

Objectives of the Law :

(S-09) (4M)

- To have uniform standing orders in respect to workers, factories, and working relationship.
- To ensure that the terms and conditions of the employment are known to the employee and thus to minimize exploitation of the workers.

- To regulate health, safety, welfare, working hours and annual leaves of factory employees.
- To enact special provisions relating to employment of children and women in factories.
- To promote industrial peace and harmony by promoting fair industrial practices

Various definitions :

1. "adult" means a person who has completed his eighteen year of age;
2. "adolescent" means a person who has completed his fifteen year of age but has not completed his eighteenth year;
3. "child" means a person who has not completed his fifteenth year of age;
4. "young person" means a person who is either a child or an adolescent;
5. "factory" means any premises- whereon ten or more workers are working and in any part of which a manufacturing process is being carried on with the aid of power or (whereon twenty or more workers are working, and in any part of which a manufacturing process is being carried on without the aid of power)
6. "occupier" of a factory means the person who has ultimate control over the affairs of the factory.

(A) Various Provisions

(S-10, W-10, S-11) (4M)

(a) Notice by occupier : The occupier shall, at least fifteen days before he begins to occupy or use any premises as a factory, sent to the Chief Inspector a written notice.

(b) General duties of the occupier : Every occupier shall ensure the health, safety and welfare of all workers while they are at work in the factory.

(c) Health Provisions

1. Cleanliness :

- (a) Every factory shall be kept clean and free from effluvia arising from any drain, privy or other nuisance.
- (b) Accumulation of dirt and refuse shall be removed daily by sweeping from the floors and benches of workrooms and from staircases and passages, and disposed of in a suitable manner;
- (c) The floor of every workroom shall be cleaned at least once in every week by washing, using disinfectant;
- (d) Where a floor is liable to become wet in the course of any manufacturing process, effective means of drainage shall be provided and maintained;
- (e) All inside walls and partitions, all ceilings or tops of rooms and all walls, sides and tops of passages and staircases shall be painted at least once in every five years.

2. Disposal of wastes and effluents :

Effective arrangements shall be made in every factory for the treatment of wastes and effluents due to the manufacturing process.

3. Ventilation and temperature :

- (a) Effective and suitable provision shall be made in every factory for securing and maintaining adequate ventilation by the circulation of fresh air.
- (b) The ventilation should maintain such a temperature which will secure reasonable conditions of comfort and prevent injury to health of workers.

4. Dust and fume :

In every factory in which, there is given off any dust or fume or other impurity, effective measures shall be taken to prevent its inhalation and accumulation in any workroom

5. Artificial humidification :

In respect of all factories in which the humidity of the air is artificially increased, prescribing methods to be adopted for securing adequate ventilation and cooling of the air in the workrooms.

6. Overcrowding :

No room in any factory shall be overcrowded to an extent injurious to the health of the workers employed therein. At least **14.2 cubic meters** of space for every worker should be provided.

7. Lighting :

In every part of a factory where workers are working or passing there shall be provided and maintained sufficient and suitable lighting, natural or artificial, or both.

8. Drinking water :

In every factory effective arrangements shall be made to provide and maintain at suitable points conveniently situated for all workers employed therein a sufficient supply of wholesome drinking water.

9. Latrines and urinals :

In every factory –

- (a) Sufficient latrine and urinal accommodation shall be provided to workers at all times while they are at the factory.
- (b) Separate enclosed accommodation shall be provided for male and female workers.

10. Spittoons :

In every factory there shall be provided a sufficient number of spittoons in convenient places and they shall be maintained in a clean and hygienic condition.

(B) Safety Provisions

1. **Fencing of machinery :** In every factory the following, namely, (a) every moving part of a prime mover and every flywheel; (b) the headrace and tailrace of every water-wheel and water turbine; (c) any part of a stock-bar which projects beyond the head stock of a lathe shall be securely fenced by safeguards of substantial construction.

2. Work on or near machinery in motion :

- (a) While the machinery is in motion, lubrication or other adjusting operation shall be made or carried out only by a specially trained adult male worker wearing tight fitting clothing.
- (b) No woman or young person shall be allowed to clean, lubricate or adjust any part of a prime mover or of any transmission machinery while the prime mover or transmission machinery is in motion.

3. Employment of young persons on dangerous machines : No young person shall be required or allowed to work at any machine to which this section applies, unless he has been fully instructed as to the dangers arising in connection with the machine and the precautions to be observed and

- (a) has received sufficient training in work at the machine, or (b) is under adequate supervision by a person who has a thorough knowledge and experience of the machine.

4. In every factory suitable devices for cutting off power in emergencies from running machinery shall be provided and maintained in every work-room.

5. **Casing of new machinery :** In all machinery driven by power and installed in any factory, (a) every set screw, bolt or key on any revolving shaft, spindle, wheel or pinion shall be so sunk, encased or otherwise effectively guarded as to prevent danger. (b) all spur, worm and other toothed or friction gearing which does not require frequent adjustment while in motion shall be completely encased.

6. **Prohibition of employment of women and children near cotton-openers :** No woman or child shall be employed in any part of a factory for pressing cotton in which a cotton-opener is at work.

7. **Hoists and lifts :** Every hoist and lift shall be, (i) of good mechanical construction, sound material and adequate strength. (ii) properly maintained, and shall be thoroughly examined by a competent person at least once in every period of six months.

8. **Lifting machines, chains, ropes and lifting tackles :** (a) All parts of every lifting machine shall be - (i) of good construction, sound material and adequate strength and free from defects; (ii) properly maintained; and (iii) thoroughly examined by a competent person at least once in every period of twelve months. (b) No lifting machine and no chain, rope or lifting tackle shall, be loaded beyond the safe working load.

9. **Pressure plant :** If in any factory, any plant or machinery or any part thereof is operated at a pressure above atmospheric pressure, effective measures shall be taken to ensure that the safe working pressure of such plant or machinery or part is not exceeded.

10. **Floors, stairs and means of access :** In every factory all floors, steps, stairs, passages and gangways shall be of sound construction and properly maintained.
11. **Pits, sumps, openings in floors, etc. :** In every factory every fixed vessel, sump, tank, pit or opening in the ground or in a floor which, may be a source of danger, shall be either securely covered or securely fenced.
12. **Excessive weights :** No person shall be employed in any factory to lift, carry or move any load so heavy as to be likely to cause him injury.
13. **Protection of eyes :** Effective screens or suitable goggles shall be provided for the protection of persons employed on, such manufacturing process which involves risk of injury to the eyes.
14. **Precautions against dangerous fumes, gases, etc. :** No person shall be required or allowed to enter any chamber, tank, vat, pit, pipe, flue or other confined space in any factory in which any gas, fume, vapour or dust is likely to be present.
15. **Explosive or inflammable dust, gas, etc. :** If any manufacturing process produces dust, gas, fume or vapour of such character and to such extent as to be likely to explode on ignition, all practicable measures shall be taken to prevent any such explosion.
15. **Precautions in case of fire :** In every factory, all practicable measures shall be taken to prevent outbreak of fire and its spread, both internally and externally, and to provide and maintain (a) Safe means of escape for all persons in the event of a fire, and (b) The necessary equipment and facilities for extinguishing fire.

(C) Welfare Provisions

1. **Washing facilities :** In every factory adequate and suitable facilities for washing shall be provided and maintained for the use of the workers.
2. **Facilities for sitting :** In every factory suitable arrangements for sitting shall be provided and maintained for all workers obliged to work in a standing position.
3. **First-aid appliances :** First-aid boxes shall be provided and maintained in every factory so as to be readily accessible during all working hours.
4. **Canteens :** In any factory wherein more than two hundred and fifty workers are ordinarily employed, a canteen or canteens shall be provided and maintained by the occupier for the use of the workers.
5. **Shelters, rest rooms and lunch rooms :** In every factory wherein more than one hundred and fifty workers are ordinarily employed, adequate and suitable shelters or rest rooms and a suitable lunch room, with provision for drinking water, where workers can eat meals brought by them, shall be provided and maintained for the use of the workers.

6. **Crèches :** In every factory wherein more than thirty women workers are ordinarily employed there shall be provided and maintained a suitable room or rooms for the use of children under the age of six years of such women.
7. **Annual leave with wages :** Every worker who has worked for a period of 240 days or more in a factory during a calendar year shall be allowed during the subsequent calendar year, leave with wages for a number of days calculated at the rate of (i) if an adult, one day for every twenty days of work performed by him during the previous calendar year; (ii) if a child, one day for every fifteen days of work performed by him during the previous calendar year.
8. **Welfare officers :** In every factory wherein five hundred or more workers are ordinarily employed the occupier shall employ in the factory such number of welfare officers as may be prescribed.

(D) Working Hours

1. **Weekly hours :** No adult worker shall be required or allowed to work in a factory for more than forty-eight hours in any week.
2. **Weekly holidays :** No adult worker shall be required or allowed to work in a factory on the first day of the week unless he has or will have a holiday for a whole day on one of the three days immediately before or after the said day.
3. **Compensatory holidays :** If a worker is deprived of any of the weekly holidays he shall be allowed, compensatory holidays of equal number of the holidays so lost.
4. **Daily hours :** No adult worker shall be required or allowed to work in a factory for more than nine hours in any day.
5. **Intervals for rest :** No worker shall work for more than five hours before he has had an interval for rest of at least half an hour.
6. **Spread over :** The periods of work of an adult worker in a factory shall be so arranged that inclusive of his intervals for rest, they shall not spread over more than ten and a half hours in any day.
7. **Extra wages for overtime :** Where a worker works in a factory for more than nine hours in any day or for more than forty-eight hours in any week, he shall, be entitled to wages at the rate of twice his ordinary rate of wages.
8. **Restriction on double employment :** No adult worker shall be required or allowed to work in any factory on any day on which he has already been working in any other factory
9. Notice of periods of work for adults shall be displayed and correctly maintained in every factory.
10. The manager of every factory shall maintain a register of adult workers.

(E) Employment of Women and Child

1. *No woman shall be required or allowed to work in any factory except between the hours of 6 A.M. and 7 P.M.* Provided that the State Government may vary the limits laid down in clause, but so that no such variation shall authorize the employment of any woman between the hours of 10 P.M. and 5 A.M.
2. **Prohibition of employment of young children :** No child who has not completed his fourteenth year shall be required or allowed to work in any factory.
3. **Working hours for children :** (1) No child (15 to 18 years i.e. adolescent) shall be employed or permitted to work, in any factory for more than four and a half hours in any day; and during the night.
4. **Register of child workers :** The manager of every factory in which children are employed shall maintain a register of child workers.

(F) Notice of Certain Accidents :

In any factory if an accident occurs which causes death, or which causes any bodily injury by reason of which the person injured is prevented from working for a period of forty-eight hours or more immediately following the accident, the manager of the factory shall send notice thereof to authorities.

(G) General Penalty for Offences :

The occupier and manager of the factory shall each be guilty of an offence and punishable with imprisonment for a term which may extend to two years or with fine which may extend to one lakh rupees or with both.

(H) Obligations of Workers

1. No worker in a factory –
 - (a) shall willfully misuse any appliance, provided for the purposes of securing the health, safety or welfare.
 - (b) shall willfully and without reasonable cause do anything likely to endanger himself or others, and
 - (c) shall willfully neglect to make use of any appliance provided in the factory for the purposes of securing the health or safety of the workers therein.
2. If any worker employed in a factory contravenes any of the provisions of this section or of any rule or order made there under, he shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to one hundred rupees, or with both.

(I) Right of Workers

Every worker shall have the right to –

1. obtain from the occupier, information relating to workers' health and safety at work,

2. get trained within the factory wherever possible, or, to get himself sponsored by the occupier for getting trained at a training centre or institute, duly approved by the Chief Inspector, where training is imparted for workers' health and safety at work.
3. represent to the Inspector directly or through his representative in the matter of inadequate provision for protection of his health or safety in the factory.

(J) Powers of Inspectors

An Inspector may -

1. enter any place which is used, as a factory;
2. make examination of the premises, plant, machinery, article or substance;
3. inquire into any accident or dangerous occurrence, and take on the spot or otherwise statements of any person which he may consider necessary for such inquiry;
4. require the production of any prescribed register or any other document relating to the factory;
5. seize, or take copies of, any register, record or other document or any portion thereof, as he may consider necessary in respect of any offence under this Act;
6. direct the occupier that any premises or any part thereof, shall be left undisturbed for the purpose of any examination;
7. take measurements and photographs and make such recordings necessary for the purpose of any examination;
8. in case of any article or substance found in any premises, being an article or substance which appears to him as having caused or is likely to cause danger to the health or safety of the workers, direct it to be dismantled or take possession of any such article or substance or a part thereof, and detain it for so long as is necessary for such examination.