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CHAPTER - V

INDUSTRIAL HEALTH AND WORKING CONDITIONS

A) INDUSTRIAL HEALTH :

1) Concept and Importance of Industrial Health :

Industrial health refers to a system of public health and preventive medicine which is applicable to industrial concerns. The modern concept of industrial hygiene differs from the traditional concept. The latter is concerned with ' the mere absence of an ascertainable disease or infirmity', while the modern concept refers to ' the health which is the outcome of the interaction between the individual and his environment. He is healthy who is well adjusted.[1] In other words, the modern concept anticipates and recognises ' potentially harmful situations and applies engineering control measures before serious injury results.'

In these days of industrilisation it has been recognised and accepted that, even to fulfil the concept of maximum production at lowest cost, the efficiency of the individual worker is a primary need. The brought in welfare

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1. Dr.C.B.Mamoria and Satish Mamoria, 'Industrial Labour, Social Security and Industrial Peace in India', - Kitab Mahal ,Allahabad.

activities like curative medical aid, canteens, training schemes, wage incentives and other similar measures.The main discontent of the worker in the present day is not that he is not getting a share of the material cake,but that his work offers poor opportunities to develop body and mind. What is coming to the forefront to help the worker in this context is the science of hygiene,safety and welfare, which studies man as a whole and caters to the needs of both his body and mind.

The subject of industrial hygiene deals with the science and art of the preservation and improvement of the health and comfort of the workers through the recognition, evaluation and control of the environmental causes and sources of illness in industry. This involves primarily a programme of health conservation and occupational disease prevention.

Industrial hygiene in its present concept is a joint field of endeavour where physicians,engineers, chemists,personnel officers and other specialists have their part to play.It is characterised by effective team-work between the different specialists and it depends upon a special welding of skills for the solution of industrial health problems.[2]

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2. V.V.Giri, 'Labour Problems in Indian Industry ' p.,299, Asia Publishing House,Bombay.

Medical aid under this programme is more preventive and constructive than curative. It has more to do with the uplift of the worker, who is apparently well, than to the helping of one who is sick. This will be more helpful to the worker to derive maximum satisfaction from his work and to the employer by increased productivity. It is the business of constructive and educative programmes of industrial health to promote health and economic production by improving the workers' physical, mental and moral outlook.

Another important function of the industrial physician is to help the safety engineer in his activities through disgnosis of hazards to the health of the worker. This is done by finding out the physiological effects on health of environmental factors like heat, noise, illumination and dust, and physical factors like posture, speed of work & so on. Industrial miedicine has become a specialised branch of preventive medicine, requiring the services of a doctor having a fairly intimate knowledge of the processes in a factory, so that he may know where to look for industrial diseases and be ready with advice as to the appropriate remedies.

'Health is the birthright of every individual and is also an important factor that raises his economic status, not only through increasing his working capacity but also his desire to work.'[3] Besides these humanitarian & economic

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3. V.V.Giri, 'Labour Problems in Indian Industry ' p.302, Asia Publishing House, Bombay.

aspects it is also the aim of industrial hygiene to contribute towards industrial peace and progress by creating human situations that enable employees to lead a meaningful life.

Thus, an industrial hygiene programme is necessary to keep men fit and faithful. True welfare work in industry is a question of advancing the worker's physical, emotional and morale well-being in order to make his life worth living and not a matter of throwing crumbs of charity at him. Real welfare is not amenities, but the right atmosphere where the worker can breathe an air of growth and development and think constructively, so as to understand the play and interplay of his subsconscious instincts and conscious emotions. What plays the most important role in such a scheme of true welfare is a well considered industrial hygiene programme.

Thus industrial hygiene is receiving increasing attention and a step in this direction is the establishment of National Museum of Industrial Health, Safety and Welfare which was set up in Bombay in 1966 by Central Labour Institute. It is mainly designed to aid the safeguarding of the worker's health and his protection against occupational diseases.

2) Occupational Diseases and Preventive Medical Facilities:

Since a large number of workers spend a great

deal of their time in an industrial setting , their environment is not usually conducive to a healthy life. The symtoms of bad health are a high rate of absenteeism and turnover, industrial discontent and indiscipline,poor performance and low productivity, A reduction in the rate of labour turnover, absenteeism,accidents and occupational diseases has been the natural consequence of industrial health programmes. The other benefits,which cannot be easily measured, include reduced spoilage,improved morale,increased productivity per employee and a longer working period of an individual.

The few studies that have been made public show that, lost time due to illness and non-industrial accidents is in the neighbourhood of twelve times as great as the lost time due to industrial accidents'.[4] Absenteeism due to industrial or occupational diseases probably does not exceed 3 percent of the total absenteeism, nevertheless, neglect associated with occupations may be a contributing factor to illness not directly associated with the occupations. The statistical report of the New York State Workmen's Compensation Board 1959, for the year 1956, shows that dermatitis was the highest single,disease being approximately 42 percent of the total. It is highly probable that certain persons are more susceptible to dermatitis than

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3, 4. Scott, Clothier and Spriegel,'Personnel Management', 6th Ed.,Mc Graw-Hill Co., New Delhi,p.438.

others. Persons who suffer from allergies tend to react more unfavourably to conditions leading to dermatitis. Occupational hernia is the next most prevalent occupational disability being nearly 13 percent of the total. This in reality is not a disease but an injury in most cases. Tuberculosis represented nearly 5 percent of the total occupational diseases. There are many other diseases that represent 1 to 2 percent of the total such as dusk diseases, compressed-air illnesses, and lead poisoning.

Medical service is more productive in rendering preventive aid than in curing the patient once he is afflicted. First-aid stations treat minor diseases arising from work such as skin ailments and allergies. The physical examination for employment is designed to aid in placement. In companies having work that is likely to present a health hazard such as handling lead compounds it is common practice to require periodic physical examinations to catch incipient cases of poisoning. With proper records, these examinations also point out the dangerous spots in the industry and lead directly to suggestions for the safety engineer. In carrying out a health program, every effort to secure the cooperation of the foremen and the rank and file workers has to be made. They must understand and sympathize with the program so that they will desire to protect their own health and that of others. It is also necessary to cooperate with the community and health agencies, for the relation between industrial health and the local water or milk supply or

sewage systems. Management strives to achieve the following results by the giving of physical examination :

1. The proper placement of those unfitted for one type of work but entirely fitted for another.

2. The maintenance of the health of those who are healthy when employed.

3. The detection and prescription for remediable defects.

4. The elimination of those who are unfitted for the job and the elimination of those with communicable diseases.

Preventive medicine is as important as treating the injured and sick. The medical department can only give instructions and advice about proper dick and food values, but the company can actually provide proper and healthful food for the employees. The development of factory lunchrooms or cafeterias was an outgrowth of the realization on the part of management that properly cooked, healthful and nourishing food supplied to employees makes for a healthy and hence a more efficient working force. The visiting nurse is interested in preventive aspects of health maintenance as well as in assisting the sick and injured. It is difficult to establish a proper attitude on the part of the employees in regard to the visiting nurse.If she finds illness and distress, she can render the most

valuable assistance. However, if she finds no sickness and discovers that an employee is out for other reasons and so reports, she is immediately looked upon as a truant officer. It is because of the difficulties encountered by visiting nurses that they are not used extensively by industry.

3) Health Programme:

The maintenance of employee health and the reduction or elimination of accidents is the primary objective of safety and health programs in business. So medical facilities provided to workers in a business unit holds a vital position in maintenance of employee health. Health of employees in any industrial concern depends on two important phases of health program. First phase include the medical facilities available at the work place and second phase is the health services provided by the employer. Medical function of any industrial unit includes --

a) Health standards,
b) Sanitation control as related to health,
c) Physical Examinations,
d) Personal Hygiene,
e) Professional Medical services,
f) First-aid Rooms, Hospitals and Dispensaries,
g) Case histories and other records and reports,
h) Health education.

The health of employees may be influenced by a number of factors. Off-plant living conditions and habits,

medical services, environmental conditions, and past personal history are of vital significance. Health is also significantly influenced by working conditions and safety practices and these two phases of health program are explained in the other chapters of this dissertation.

The very important aspect of the health program is themmedical facilities provided. Therefore the main subject matter of this chapter includes two commonly encountered health programs :

A) Medical Examination

and

B) Various health services :

These are the two important aspect which promotes health of the workers. It is nothing but the matter of organizing medical services.

MEDICAL EXAMINATIONS :

Most companies give due recognition to provision for and performance of adequate medical examinations. These may be seen by reviewing ;

1. Coverage of examinations,
2. facilities for examinations,
3. medical and health records,

1. Coverage of Examinations :

In this subject a survey may be made by nothing who may be examined, when and how. A list of those who may be examined would include the following :-

ii) Employees who return from extended leaves of absence.

iii) Employees who are returning from sick leave.

iv) Employees who have been absent, excused or not excused, for a specified number of days, usually 6 to 12 days.

v) Employees engaged in occupations with exposure to disease or illness.

vi) Employees whose work might endanger the life or health of customers of fellow workers.

vii) All employees, periodically or as new developments in medicine warrant.

The periodicity and frequency of examinations may also vary . A list of variations follows :-

i) An examination of employees only when they enter the employment of the company.

ii) Non-periodic examinations for those returning from sick leave, etc.

iii) Periodic examinations - for -

a) Voluntarily assumed by the company for all employees or those engaged in hazardous or health-affecting occupations.

b) Required by law for those engaged in occupations affecting the health or security of customers or patrons.

A list of types of examinations which may be given - follows :--

1) Medical examinations of general physical conditions.
2) Examinations of communicable disease e.g. venereal or tuberculosis.
3) Visual and dental examinations.
4) Psychiatric examinations,
5) Visits to the homes of employees.

2) Facilities for Examinations :-

Most companies provide excellent facilities for physical examinations relative to their size and needs. Unually, facilities are provided adjacent to the personnel department office, since most examinations are given in connection with various personnel procedures - e.g. new employees, transfers, employees returning from sick leave, or those absent without permission who are returning to their jobs. This location is also desirable because it gives applications an opportunity to get a favourable impression of the company. Moreover, it is sufficiently removed from busy traffic to make its location favourable for medical work.

Next to the medical and professional staff, equipment is invariably the most important part of the medical department. What it should certain depends upon the examinations to be given, the hazards that exists in the company, the policy of the company and the number of workers to be served. Usually, facilities are provided for minor injury cases, chest X-ray pictures, venereal disease tests, and urinanalysis, as well as cursory eye,ear,nose and dental examinations. Some of the larger companies also have completely equipped operating rooms and hospital units. A few large companies have also eye and dental dispensaries.

3) Medical and Health Records:

All medical, health and accident procedures should be properly implemented with adequate records and reports. Since vital decisions are based on them, it is doubly essential to gather and report information so that those who use them will be able to interpret them properly. The records which may be kept are so varied that no more can be done here than to list the major categories :

i) Medical examinations,

ii) Dispensary cases handled,

iii) Reports of accident occurrence,

iv) Investigations and surveys of working conditions.

v) Trends of accidents,occupational illness, and first-aid cases.

vi) Sanitation as related to health.

B) OTHER HEALTH SERVICES:

In addition to examining candidates and employees, health services may be expanded to include :

1. Surveys of Plant conditions

and

2. Off-plant medical care.

1. Plant Surveys : Plant surveys are essential in order to maintain healthful working conditions. They serve to reveal sources of occupational disease, unsafe working conditions and conditions conducive to the development of fatigue.[5] The surveys should be made periodically or upon special occasions. They should be conducted by skilled technicians operating out of the medical department of the personnel division. In addition, the skills of properly trained technicians and professional talent will be brought into play in this important work.

An important phase of such surveys is that of checking operations that tend towards occupational disease or illness. As important, but less obvious to the observer, are factors leading to the development of excessive fatigue.Surveys of noise, vibration and material movements may be related to output,scrap,absenterism, illness and accidents.Such studies may serve to determine

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5. Michael J.Jucius,'Personnel Management' D.B.Taraporevala and Sons Co.Ltd.,Bombay

if these factors are present to an undesirable degree.

2) Extension of Health Services :

These are the health and medical services, orginally provided only to serve the internal needs of the company, are now being extended to the families of employees. But such extensions are not to be confused with health and medical service insurance. Medical facilities have been made available to employees and their families usually in cases where community facilities are inadequate or where company officials take the view that employees must be given such opportunities.

The expansion of health services usually takes place by providing visting-nurse service to employees away from work because of illness. After this, provisions are made for giving free physical examinations to all who desire them. Also, the services of company doctors or hospital facilities are made available in the case of emergency operations due to causes outside the employment contract. Besides all these,extensions to provide free examinations and at-cost,or even free, service in connection with the prevention or cure of visual,aural, and dental problems as well as general physical ailments.

Health services of an educational nature should be provided - like (a) first-aid courses for workers should be conducted.(b) Home-nursing courses are another example of training along these lines,sponsored by some companies.

ORGANIZATION FOR MEDICAL CARE:

There may be no medical department in the business. Certain smaller enterprises use outside medical services for the people requiring a doctor's care. On the other hand many companies have a part time medical officer even though they do not have enough work for a full time medical man.

The medical department may play an important role in reducing accidents by proper examinations of all new employees. Impaired workers properly placed have as good a safety record as normal workers. The important thing is to detect the defects and place the workers on appropriate jobs.[6] Certain accident-prone workers should be sorted in the personnel department and placed on jobs that are suited to their peculiar mental and physical characteristics. Through the organization of a first-aid staff in a company, workmen, including the supervisors, can be given instruction and practice as to how to render first-aid treatment to fellow workers. Where the occupations are usually hazards, regular classes of workers from each department, meeting periodically for first-aid instruction, are desirable. In less hazardous industries, pamphlets, bulletin-board, material and talks or illustrated lectures may be used to give such information and to impress

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6 National Safety Council, 'Accidents Facts', 1947.

the workers with the importance of first-aid treatment.

A large part of the industrial physician's service is in preventive medicine and consultation with employees. Workers frequently reveal things to the physician that are of general concern to the management. The presence of a first-aid station near the work-place has a tendency to facilitate the employee's having minor injuries and thus reduce infections. Most large companies provide suitable first-aid stations or dressing rooms, equipped to take care of major as well as minor injuries. In some companies, there is a central station or hospital, as well as first-aid equipment distributed at various points throughout the plant for this purpose.

B) WORKING CONDITIONS:

' Need for Safety, Healthy and Efficiency of the Worker '

Working conditions include cleanliness, light, heat, ventilation, physical energy required, length of the work day, irregularity of the work hours such as night shifts or the rotation of shifts, physical hazards, exposure to possible industrial diseases and similar conditions, also these social group and managerial conditions that directly or indirectly influence the worker's happiness , satisfactions, or dissatisfactions at work.

Human being happens to be the most outstanding and conspicuous element in any industrial enterprise which has been viewed from three different angles:

(i) Mechanical - as a machine (ii) Organic or physiological - as an organism and (iii) Psychological. Working conditions or work environments do affect workers in all these respects. Good working conditions are conducive to safety, healthy and efficiency of the worker and bad conditions adversely affect the efficiency and accident possibility of the average worker.

Bad environment or working conditions may ultimately lead to :- (1) Physiological fatigue,(ii) Mental fatigue or a feeling of boredom (iii) Decreased output and (iv) Lower level of efficiency (v) Increased incidents of accidents and illness. Thus while judging the effects of work environment on the workers, it is essential to look for all or any of these signs and then decide whether the working conditions are good or bad. Bad working conditions adversely affect the body and the mind of the worker and further they also lead to sickness, accidents and absence without leave. It is, therefore, in the interest of both the management and the worker that proper working conditions should be established.

1) <u>The Need and Importance</u>:

It is obvious that adverse effects on industrial health can arise from the nature of the industrial

environments, such as, presence of dust and poision, excessive temperature and humidity, defective lighting, noise and general plant insanitation.' The working environments can give rise to diseases, has been known from the time of Hippocrates in the fourth century B.C.[1] Another study of thermal environments in industry and determination of comfort renges in relation to work has also been undertaken by central labour institute, with the help of an expert from the USA to find out the heat tolerance of workers and effects of excessive heat and humidity in the air, on their health and efficiency. Such a study has been undertaken in nine textile mills at Ahmedabad. All such investigations shows that good and healthy atmospheric conditions are very essential to maintain industrial safety.

The actual design and maintenance of working - conditions is largely the work of the engineering and plant maintenance departments. But there are personnel aspects to such work. Personnel has a stake in such matters because of their effect upon the loyalty and attitude of employees. This department should therefore have an advisory relation to the departments that may plan for and maintain physical conditions. Hence the personnel department should be

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1. V.V.Giri,' Labour Problems in Indian Industry ' p.298 Asia Publishing House, Bombay.

attentive to such matters, so that disputes or frictions do not arise. And thirdly, the personnel department should keep abreast if new developments in order to be able to advise management on steps that might be taken so that desirable improvements will not be overlooked. For such achievements, this is not to imply that the personnel department must have technicians on its staff.

2) Phases of Working Conditions :

Working conditions and physical environment are interlinked and contributory causes for accidents. Man is a totality of integrated physiological and psychological functions and the environment has a great effect on his body and mind. Too high or too low temperature of the atmosphere, defective ventilation, improper lighting irritating noises and virations and unduly long hours of work create conditions of discomfort and disability. They cause fatigue of body and lethargy of mind. They bring down morale, reduce quickness in perception of danager, making a worker easily vulnerable to accidents. In the following, attention is therefore directed to some specific phases of working conditions.

1) Material Handling:

Meterial handling is the source of the greatest number of injuries in industry. Hence the flow of materials in all of its phases should be carefully planned. First, handling of materials and parts of machines and benches

should be studied, to the end that physical handling is reduced to a minimum and adequate protective devices are provided. Secondly, the flow of work between machines and departments should be facilitated by proper equipment and should be provided with well-designed and well marked storage spaces and aisles and roadways.

2) Machine Guarding:

Protection of the worker by the strategic placement of mechanical guards and electronic controls is another essential of good working conditions. Various devices can be provided to protect workers.(a) from the many parts of all equipment that transmit power and (b) from the hazards at the point of work. The dangers arising from the mechanical devices that surround the worker as well as the hazards arising from adjusting, inserting and manipulating materials and tools should be considered here.

3) Disaster Controls :

Hazards and disaster controls are also essentials of good working conditions. A well designed system for detecting, inhibiting and fighting fires is absolutely essential. In cases where explosions are possible, a program of control should include periodic inspections, isolation from other operations and devices for reducing igniting factors.

4) Radiation:

The nuclear age has brought to industry a new challenge to safety. The consequences of radioactivity are so severe that extreme measures must be adopted to protect employees from exposure. This involves such practices as appropriate buildings, warning devices, protective clothing, handling devices and safety education. As the trend of nuclear energy accelerates the needs in this area will become increasingly imperative.

5) Mental Environment:

The mind of every man carries desires, fears, anxieties, ambitions, hopes, friendship and enmities and these react upon his happiness and his efficiency. His personal feelings also reflect the more general feelings which pervade the group in which he is working. All these can be expressed by the term ' atmosphere ' or ' morale '.

Modern industries are complex and success of any particular industry depends upon the co-ordination of workers and the coordination of different departments. But this co-ordination can be achieved if workers are willing to co-operate but this co-operation, in its turn, depends on a good mental environment. It is, therefore, necessary that the causes of bad atmosphere should be discovered and removed.

The root-causes of the bad factory morale are not always economic. It is true that wages and security are

obviously the strong motives to a worker with the responsibility of dependends. But even physical factors have an important influence in the shaping of the mental background of the work. It is the responsibility of the management to maintain good working conditions and in this regard they should be willing to take the complaints of the workers sportively.

Good working conditions not only result in greater efficiency and safety but produce a good effect on the worker's attitude and psychology. He takes pride in working in the midst of such good conditions.

6) Internal Environmental Conditions:

Environmental factors are important in good working conditions. Attention needs to be devoted to light, temperature and atmospheric conditions, i.e. ventiation, humidity etc. Therefore,provision should be made for good illumination, confortable temperatures and control of dusts, fumes and gases. Employees should be provided with protective devices, clothing,goggles and shields in case of unusual conditions.

FACTORS OF WORK ENVIRONMENT:

i) Atmospheric Conditions :

A worker working in a badly ventilated room usually experiences lassitude, discomfort and fatigue. It is now an established fact that the important cause

of fatigue and inefficiency is 'air-stagnation'. Humidity and temperature also affect the worker. ' An atmosphere which makes it possible for the worker to dispose of surplus bodily heat and thus gives him comfort, can be called as 'good atmosphere [2] On the other hand any thing that - obstructs the worker from doing this, can be termed as 'bad atmosphere'.

The function of ventilation is to remove surplus heat from the body. The stagnant air produces chemical changes and also has a lower cooling power. In the factory the main problem is the adjustment of cooling power to the nature of the work done. The cooling power of air declines with rising temperature, with rising humidity and with falling velocity of air circulation.

There is abundant evidence of the connection between efficiency and ventilation. This will be evident from many facts regarding output, sickness and accident rates. Temperature has an effect upon the worker which can increase his accident liability. One study on factory workers has shown that ' fewest accidents occur when the temperature is the vicinity of 70°. and the rate is considerably higher when the temperature is below 65° or above 70°.' It has also

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2. P.T.Ghan, 'Introduction to Industrial Organisation' pp. 257-258, Poona Vidyarthi Griha, Poona.

proved that high, temperature, over 70 degrees, is much more serious cause of accidents in older workers.[3]

ii) Illumination and Artificial lighting:

Uncomfortable conditions from this point of view mean - poor visibility, frequency of blinking, glare and muscular strain. Bad lighting has a more immediate influence and it lowers output directly, increases accident rates and leads to overstrain. Illumination layouts in factories should therefore be controlled and lighting arrangements should be verified. 'Sight ' is the most important sense in the factory work and lighting arrangements should be given due importance. Comfortable illumination means illumination or light of the proper type, from the right direction and to the extent desired.

Insufficient light is also one of the causes of industrial accidents. Lack of light is responsible for three types of Accidents :-

i) Contact with machinery 27 %
ii) Object dropping on a person 15 %
iii) Persons falling 12 %

Accidents most affected by artificial light are accidents due to falls and eye injury. In artificial light glare is the most common defect. Glare

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3. Thomas W. Harrell, ' Industrial Psychology' Oxford Publishing Co., New Delhi.

pupils of the eye in a bad way and it may lead to strain, fatigue,headache & accident. One Insurance Company estimated from survey results ' the 25 % of all industrial accidents were due to poor lighting.Another survey carried out in Great Britain ' it was found that artificial lighting caused an overall increase in accidents of about 25 %.[4]

iii) Noise and Vibration:

Noise control is also of significance in rpomoting employee comfort and efficiency. It is the intensity and the frequency of sound that matter.Intensity is referred to as noise and frequency as vibrations. Irregular and interrupted noises are discomforting not only to workers but to the people in the vicinity also.

In the midst of irregular and interrupted noises, a worker finds it difficult to concentrate on his work and this adversely affects output.Secondly, such noises affect his hearing.A very high noise level in the long run causes loss of hearing power. Therefore,the intensity and requency of noise should be controlled to the extent desired and possible.Noise can be controlled by reduction at the source,enclosing the noise,use of baffles,use of sound proofing material in construction & use of ear plugs. Noise of the machine can be controlled by proper maintenance and lubrication of the machine & by mounting it on rubber.

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4. B.Von Haller Gilmer,'Industrial and Organisational Psychology', p.530, Mc Graw-Hill,Kogakusha Ltd.,

iv) Hours of Work and Rest Pauses:

It is now realised that if the number of working hours is more, the worker do not reach their greatest efficiency. The reasons are : a greater number of working hours creates feelings of fatigue and boredom in the workers and secondly the workers might deliberately work slowly in order to conserve their energy for such a long working day.

'Experiments have shown that the reduction in hours of work does result in greater efficiency and consequently a bigger output. It has also been established that the more the number of working hours, the higher is the incidence of sickness, injury and absence without permission.'[5] So to eliminate this, the worker should get weekly holidays. The rest and the carefree life that he enjoys during these holidays removes from his mind the feelings of fatigue and boredom and he returns to his work with greater vigour and enthusiasm.

Rest pauses during the day also have a similar effect on the workers. Rest periods are needed at those times when the workers are experiencing the greatest fatigue.

V) Plant Layout and Shop Layout:

Plant Layout and shop Layout should also be

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5. P.T.Ghan, 'Introduction to Industrial Organisation', p.259, Poona Vidyarthi Griha, Poona.

designed in such a way that there will be no crowding and confusion and the work will proceed from one section to another, from one machine to another, smoothly. All these layouts should be so planned that there would be proper lighting, ventilation and enough space for movement. Defective plant and shop layout adversely affect the body and mind of the worker and also lead to accidents, absence without leave.

vi) Color: Proper use of color may also have constructive influence on safety and efficiency. Improvements are noticeable after equipment is painted to conform with safety recommendations instead of a uniform gray. Suggested colors are as follows:-

a) Yellow or orange for dangerous materials or parts of equipment ;
b) Green, white, gray or black for safe materials or machinery parts,
c) blue for protective materials,
d) red for fire protection materials and equipment.

7) Personal Needs:

Good working conditions also call for adequate provision of conveniences of a personal nature. Good drinking water, properly cooled and available through well located dispensers should be supplied. Adequate toilet facilities

THAT Are well located, lighted and ventiliated and carefully cleaned and disinfected, should be provided. Facilities such as shower rooms are also indispensable, when working conditions may lead to skin diseases or contamination.

8) External conditions:

The outside of the factory should also be given attention in the matter of employee comfort and attitudes. First, the general appearance and landscaping cast an impression upon employees for good or for bad, Second, strategic arrangement and pleasing appearance of approaches, streets, sidewalks, gates and entrances can be a part of good working conditions. And third, arrangements for parking of cycles and automobiles and areas for sitting before the shift is started, can put employees in to the right (or wrong) attitude towards their working day.

Although not directly an internal employee matter, growing too is industry's responsibility for external pollution. Air pollution, contamination of water resources and waste disposal are by voluntary as well as mandatory means receiving attention. Directly the community is there by affected and indirectly the employee who then has a more favourable attitude towards employers accepting their community responsibilities.