

WHY INDUSTRIAL SAFETY

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Safety, like good health, is something intangible which we are accustomed to take for granted. Only when met with an accident does one look back to see whether one has endeavoured to maintain stringent Industrial Safety Codes of Practice. It is this ignorance and apathy on the part of both Employer and Employee which costs dearly the loss of many a life and limb.

In Sri Lanka each year, over 200 people are fatally injured and at least another 5000 disabled in Industrial Accidents. Assuming an average family with three children at present, these accidents will affect at least 20,000 lives. The Factories Act is designed to curb this carnage and prevent the misery. Considering the fact that there are over 9000 industrial sites which come under the purview of the Factories Ordinance, the personnel at the Factories Division of the Labour Department are faced with a Herculean task of implementing the Regulations.

I repeat once again that in Industrial accidents alone in Sri Lanka, 200 are fatally injured and 5000 maimed. No apology is offered for stating this fact once again, because it will open the eyes of all who are responsible for the safety of operators in Industry. Moreover I drive home the fact that inquiring as to the root cause of these accidents and writing reports alone would have cost some 40,000 man-hours at a conservative estimate. The annual loss in terms of production in Industry in this country due to these accidents is estimated at Rs. 30 million. In addition to this, is the time and money incurred on ensuing legal actions and compensations paid. Do this stupefying, petrifying data induce you to look back in shame at the meagre safety measures existing in your own establishment? What follows definitely will.

People in Industry want to avoid accidents at all costs. An accident is an inconvenience. A strange fact about most accidents is that although the psychological make-up of man resents any form of injury to himself, nevertheless, the average Industrial Worker does not seem to take any positive step towards accident prevention. The motivation towards this goal could be achieved if prosecution and ultimate lodging in gaol lies in store for those Managers who neglect their duty in providing safe working conditions for their workers. Caring for the worker and his working conditions boosts up productivity and morale and is a useful tool in Industrial Management. The above fact was inferred from a classical experiment conducted some years ago at the Western Elec. Company in U.S.A. by Elton Mayo.

The positive value of safety in industry emerges from the fact that accidents are unpleasant. To cheer you up let me state at this juncture that 98% of the causes for accidents could be inhibited or altogether eliminated. (The cause of an accident is the most easily preventable

circumstance in the absence of which the accident could not have occurred). An accident is the combined effect of personal factor, material factor, unsafe additional factor, and "proximate" causal factor. These factors are complementary, and only a comprehensive approach for accident prevention will do any good for a large establishment.

One cannot discuss Industrial Safety and its implications without going into the realms of Accident Prevention.

Accident prevention is a sound financial investment for any employee. Accidents in industry always bring about a lot of complications in their wake: workers' compensation laws, properly framed and practised, will in themselves motivate safety measures implementation by employers. Even annual Insurance premiums and payments could be geared to the "Degree of Safety" of a factory. Here the Factory Inspecting Engineer can play an active role by recommending lower rates for intrinsically "safe" factories.

Industrial accidents always cost, men, machines, materials, money, and morale. Indirect costs which affect an otherwise parsimonious outfit are, loss in production time, breakage and associated repair, hiring, recruiting and training new hands or promoting employees to do the work of the injured (or killed); time lost during the workers' initial state of panic and subsequent stoppage of work to investigate the accident and the victim. Also are the welfare costs, management's time lost in inquiring and report-writing, demoralization among the workers, etc. Direct costs incurred are the medical bill, medical leave, medical leave wages, insurance and/or compensation, etc.

It must be emphasized that accident rates and morale are akin to the two sides of a see-saw. As morale is depressed the accident rate soars up and vice versa. However as accidents become less frequent, workers become less aware of the virtues of safety and tend to become overconfident and careless. Hence constant propaganda for positive motivation is a must. The operator must always be instructed of the safety devices, he is provided with. This may take the form of safety by design, position, fixed and automatic guards, interlocks etc. According to an H.M. Inspector of Factories: "However well machinery is guarded, we cannot look for more than 10% reduction in accident rate". Hereby I leave it to the readers to think independently of this statement.

Men must be made to respect and remember safety in all their actions. As a person is made aware of the degree of danger in and around a piece of equipment he tends to adjust himself suitably. Hence in normal situations if the

Manager makes it a habit to enforce the worker to use safety devices and safety apparel, it will go a long way to reduce accident rates.

Each man is interested in what he does and wants to achieve. In this context the poser "Why Industrial Safety" can be answered in a nutshell. Industrial Safety is collateral with the interests of each of us in factories, individually and collectively in our attempts to achieve our goals.

Almost all industrial accidents are due to human failure as long as a human being is behind each industrial innovation at any time. Humans may err in the design, construction, workmanship, installation, supervision etc.

Effective employment of men, machines and materials, optimum work intensity, and attempts to improve aesthetics of labour will result in a tremendous improvement in an "unsafe" factory, in addition to what is said above. Also laziness, abnormal psycho-physiological states and lassitude due to lack of keen interest on the job at hand are some others which deprive us of smooth work output.

Fatigue in shift work is a major concomitant of accidents. Factory management recognises this and limits the number of working hours per day per man in certain trades. Habits are unseen forces which make us do silly things, but it can also be made to enforce safety. To quote an experience, there was a wood panelled door at a factory entrance. This door was closed by a spring type door-closer linked at the top. Eventually after the wood panelling was replaced by a glass during renovation, people still used to open the door by pushing against the glass. (This was due to habit). An accident resulted where the victim's hand broke through the glass and he severely cut himself. When wooden battens were fitted in front of the glass at the place where people push at, no more accidents occurred.

Fatigue blunts the instincts of persons. In other words accidents could be caused by human errors. It is difficult to make a foolproof safety device an idiotproof one as long as humans try to circumvent the incorporated safety devices. Often, when production targets cannot be achieved due to the breakdown of the safety path of an equipment, the equipment is operated with the safety paths bypassed. This is criminal and must be avoided at all times.

Lack of Industrial Safety is now fast becoming a national problem. The irony of this problem of safety is that only those accidents which occur in reputed establishments (private and public) are brought to light and not those that take place in the numerous lesser ones. This apathy is an offshoot of the "not to care" way of attitude of workers and supervisors which is contemporary today even in some other countries (to make a confession even the writer had this attitude at the beginning). This apathy is less active in some factories, where the injuries had been reduced by affording to maintain safety staffs in their cadres. Those who are less fortunate in this connection, however small their enterprise may be, can always seek the advice of the Factories Division.

Correct level of mental attitude towards safety sadly lacks in the industrial set-up of ours today. Hence training of personnel at all levels of the hierarchy is required urgently. Culmination of safety is achieved through teamwork of all men in industry.

A course of training and education in safety should cater to various levels of operatives according to their duties. A worker needs to be given more practical instructions than those given for the senior management. Factory staffs must be made to view Safety Centres and "safe" factories, so that they may be able to copy likewise in their own works.

Often when we come out after a public lecture many of us do not seem to be convinced of the things the speaker has said. Same could be stated of some of the safety talks we had some years ago. But now the scene is changing. The point I wish to stress here without malice is that there is a dearth of good lecturers of the right calibre to do safety induction and instruction programmes. Safety, like surgery and politics, cannot be tackled by an impractical academician. The ideal person should have about four to five years of floor level experience backed up by theoretical knowledge of basic engineering principles, preferably with specialised knowledge in Safety Engineering. As a badly organised course can confuse and/or mislead an audience, it is in the interests of the general public and economy that safety officers must be recruited with care.

Middle managers such as foremen and supervisors have been aptly termed the "cutting tool of the management" and it is to these men we should turn to induce safety measures into the factory atmosphere. Foremost then, it is these gentry who must be thoroughly instructed. With the right kind of accident preventive incentives mooted in Industry, via the Labour Department, safety could be made integral with industry.

When we consider the critical and actually exacerbating rate of industrial accidents affecting the galloping scale of the nations' industrial tempo, as the industrial plants grow obsolescent and the unskilled quality of cadres increase, we can only gape at the alarming number of accidents.

With proper motivations and instructions this stupendous attack at life and limb can be stopped. The grief and sufferings of the number of mutilated wrecks and their penurious dependants can be eliminated.

Therefore drastic measures should be taken to safeguard the nation's workers too frequently from their own derelictions. Then only our industrial prosperity will be ensured without the victimization and holocaust of our people.

The productivity and progress of our industry can be accelerated by assurance of safety to personnel. Towards this end, Worker Education by Safety Programmes held throughout the year should spearhead all other activities.

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