

Labour Welfare Measures in Indian Chemical Industry

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ABSTRACT - This paper is an effort to present the various factors governing the safety and Health measures in chemical industry which applies in the general aspect of Indian context. Particularly the employees have got several stringent in the safety and health, affect through the enormous dust and chemicalised air breathing in the factory zone and in the work spot. The researcher had reviewed many of the articles and representing the importance of labour welfare and what extent it had been protecting and providing the welfare to employees working in chemical industries in the present scenario.

Keywords : Labour, Welfare, Health Measures, Chemical Industry, Secenario

1. INTRODUCTION

Labour welfare is the voluntary efforts of employer to establish within the existing industrial system's working and sometimes living and cultural conditions of the employee beyond what is required by law. Comparing to other countries, India has much greater need and importance of labor welfare to the workers. Such a condition is caused by certain deficiencies in Indian labor force that are not found in its counterpart in other countries. The fit falls and deficiencies that increase the importance of labor welfare activity in the country. Briefly, the following are the reasons why labour welfare work in India assumes greater importance than in other countries. That are:

- i) Lack of strong labour union movement, in our country, today the workers are no united into a class. Keeping in view the numbers, labor Union movement is still in its infancy. Even in the labor union that does exist, there is a lack of enlightened leadership, and there is not unity between these unions themselves.
- ii) Inadequate knowledge potential.
- iii) Insecurity and work migration.
- iv) Illiteracy is taken as compared with other countries, the percentage of educated workers is very low, most of them being illiterate.
- v) Problem of absenteeism and migration of employees compared to workers of other countries, the Indian labours is more restless and does tendentious towards frequent migration because of insecurity in their job and they think it does not provide for their needs, and the atmosphere in general does not suit them.
- vi) Health care and to their dependents

Poverty makes the labours towards their low level of health and nutrition compared with their counterpart especially in most European countries is unhealthy and ill fed. This article focused the reasons behind the environment in Indian

industry because of the following circumstances. Extreme poverty, lack of training, lack of healthy recreation, industrial backwardness of India, and many researches has been done in the following themes, such as 1. Manpower: trends and magnitude. 2. Employment policies and programmes. 3. Labour welfare: legal framework and initiatives. 4. Women workers: legislations and empowerment. 5. Industrial relations and labour laws. 6. Restructuring of labour laws: the great debate. 7. Labour laws and welfare: India and ILO. 8. Labour reforms: India and WTO. II. India's Five Year Plans at a glance. III. Edited extracts from India's Five Year Plans on employment and labour related matters (I plan to X plan including mid-term appraisal of the X Plan). Therefore, the significance of Safety & Health in chemical industries has been a vital issue in achieving productivity and an edge in the competitive world. This paper is an effort to present the various factors governing the safety and Health of chemical industries in general aspect in Indian context.

2. WELFARE MEASURES TO BE TAKEN IN CHEMICAL INDUSTRY

The risks of accidents and / or harmful exposures are as concern the following cause will affect the employees, such as:

1. Dangerous Materials is concern the situation may cause from i) Explosives ii) Gases iii) Inflammable Liquids iv) Inflammable Solids v) Oxidizing substances vi) Toxic and Infectious substances vii) Radio Active Substances viii) Corrosive Substances ix) Miscellaneous Dangerous Substances.
2. Hazards of pressure vessels can give the following hazards i. leakage or bursting of pressure vessels ii. design defects iii. failure of relief systems iv. lack of hydraulic testing. v. lack of proper instrumentation or instrumentation failure vi. lack of non-disjunction tests vii. corrosion of vessels. viii. lack of routine inspections ix. attempt of pneumatic testing.
3. The hazardous chemical reactions are that to the 'cautionary action' to be taken and understanding about the behaviours of reactions and adopting precautionary and emergency measures.
4. The Hazardous of Unit Operations are to understanding the hazards inherent in each unit operation and adopting precautionary and emergency measures.
5. The Flammable Gases, Vapours and Dust Hazards will induce and enhance the problem. Due to decrease in this situation the following measures to be taken, such as Identification of potential areas, where possibility of flammable mixture are possible, Efforts to avoid hazardous mixtures, by inert gas purging and other

methods, Declaring hazard zones and providing flame proof electrical fittings and equipments, Providing Explosion Vents in spaces with possibility of air-vapour mixtures. Explosive meter testing, providing adequate fire control devices and arrangements to avoid static sparks.

6. Health Hazards is concern the vital need of employees to be taken care on the following aspects of chemical industries such as identification of potential health hazards, assessment of levels of physical and chemical health hazards, Control of hazards by various techniques, Adequate awareness among the workers, Periodic medical examination of the workers, Personal protection for occasional exposures, Proper hygiene and decontamination facilities to be done the hazards due to corrosion to be controlled through the following measures weakening and falling of structures and sheds, falling off workers from height due to breaking of raised platforms, hand rails, toe boards, stairs and ladders, Spills and toxic releases from pipelines, leakages and bursting of vessels due to corrosion, Corrosion monitoring and control, Testing and inspection of vessels and structures to ensure safety.
7. The entries into confined spaces to be controlled by these measures are Oxygen Deficiency, Toxic Contamination, Flammable Environment, Possibility of Electrocutions through electric equipments, Possibility of Toxic gas generation during the work, Lack of Ventilation, Difficulty in welfare monitoring, Failure to escape on emergency, and handling of Combustible Substances.
8. Working with pipelines thorough cleaning and purging before hot work, safety belt with one end outside, life line to monitor welfare, ongoing ventilation, low voltage electric appliances, self contained breathing apparatus, environmental monitoring for oxygen, toxic gases and flammable gases before entry, pipeline isolation before entry, electric isolation before entry, proper ladder for entry, and the hazards due to inadequate identification of pipelines, leakages and bursting of pipelines, collision of vehicles with pipelines, improper materials of construction of pipelines, breaking of pipelines, tapping of pipelines, thermal expansion of liquids in the pipelines, bursting of pipelines due to freezing conditions, and the accumulation of condensates in the pipelines.
9. Plant alteration and modification is concerned with the safety may done as alteration in plant, equipment, component, process, operating procedure, etc. due to some difficulties followed by failure in some unforeseen aspect of the system such as: if any alteration is inevitable, design intention of each and every component of the system should be well understood by every person concerned, refer the matter to the designers, carry out Hazard and Operability Study (HAZOP) by expert team, pass it through plant modification approval committee.
10. The sampling and gauging is concerned with the exposures of gases, vapours and dust while collecting

samples, approaching odd locations, splashes and spillages while collecting samples, exposures due to breaking of sight glasses and glass level indicators, dip gauging of flammable liquids, dip gauging of corrosive liquids.

11. Hazards due to Instrument Failures is also a cause for the absence of fail safety instruments, Lack of interlocks and trip systems, Human failures in manual and semi automatic operations, need for safety analysis of the instrumentation systems.

3. SAFETY SYSTEMS

Safety Management System is well organized and registered by Indian factories followed by the "Safety, Health & Environment Policy ". Besides, Quality policy (ISO-9001), Environmental policy (ISO-14001) & Occupational Health and Safety policy (ISO-18001) is also practiced by different organisations. The above three systems of safety, health and environment policies are certified and recognized by external agencies of international repute.

The activities of safety management system is as follows such as: safety committees, central safety committee, plant level safety committees, safety audit by external agency, internal safety audit, motivation for safety, housekeeping committee, safety poster, safety contests, safety week, safety articles, safety calendars, celebration of national safety day, work permit system, safety inspection and audit programme, incident/ accident investigation and reporting and disaster prevention action plan.

4. CONCLUSION

Due to absence of properly organized labor union and the workers can neither, place their demands effectively before the employer, nor can they think clearly and systematically of their own interests. As this is force lacking in India, it is essential that the welfare of laborers in the country be efficiently looked after by the employers and the Government. Consequently, they are not in a position to receive advanced industrial training, understand the problems in industries their own interests and those of nation as a whole. This can prove a source of harm not only to the workers but also to the country. Hence efficient, and become responsible citizens of the country. Also due to inadequate level of wages the laborer cannot feel comfortable settle down in one place. This may in turn also give rise to absenteeism to the worker side. This workers migratory tendency can be curbed by providing them with adequate facilities and conditions, and this also shows a positive effect to overcome the absenteeism in the factory. This shows a definite effect to the production potential to organisation. Hence, workers are in very need of inexpensive nutritive food and good facility in case of hospitalization. With all above mentioned efforts and achievements are to be implemented in India. Maintaining best safety practices, accident free and cordial working atmosphere are also the essential to the employees. In our country, labour union plays a vital role to the workers as well as to the management. They have been struggling to get the lien of none provided welfare from the organisations.

“Safe the country-safe the workforce”

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