

Original Research Article

Environment laws and legislation regulating chemical toxicity sub-topic- an overview on labour laws made to reduce toxicity in chemical areas

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Abstract

This paper tried to explore the laws and legislation made for securing the health issues of labour working in chemical industries and also about the environmental laws and legislation made to control the toxicity including process made by government to implement these laws and legislation in system. The environmental laws and legislation just not made to cover legal structure and fulfilling the norms but also attract to industries for paying social responsibility and make their contribution in creating healthy social environment. Findings and results are based on secondary data and literature available.

Key Words: Labour laws, legislation, health issues, toxicity, social environment, result and findings.

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INTRODUCTION

Good food, good health and good life are the basis and right of a human. To maintain these right in equality laws have been made. There are small variation in these law country to country. Labour laws have been made to provide social justice and equality to all the employees, these laws not only providing social justice and equality but also deal with health and safety issues, specially labour who are working in chemical industry.

AIMS AND OBJECTIVE

To study the labour law made to reduce toxicity in chemical areas and working of these law regarding reduction of toxicity in favour to secure labour health.

MATERIAL AND METHODS

Present study is conceptual and doctrinal in nature because it involved study of various labour laws made under Indian constitution for securing health and wealth

of employees. The purpose of this paper is to study the various labour laws made to control and reduce toxicity in chemical industries.

Labour laws for chemical industries in India: Labour laws related with the legislation for individual as worker and general legislation as citizen. The objective of these laws is to create social justice and equality. Labour law deals with the problems related to work or working environment like wages, working environment, duration of work, dispute, trade union, health, and safety issues etc. Labour Laws made for securing health issues of labour working in chemical areas:-

Obligation regarding Hazardous Processes or Substances - Information about hazardous substances processes should be given. Workers and general public should be informed about dangers and health hazards. Safety measures and emergency plan should be ready. Safety Committee should be appointed.

List Commonly occurring hazardous chemicals are:-

Acetone
Ammonia
Arsine
Benzene
Benzoyl peroxide
Beryllium
Chlorine
Chloroform
Chromium
Cyclohexene
Diethylene glycol
Dimethyl sulphate

Ethanol
 Ethyl chloride
 Fluorine Selenium
 Formic acid Silica dust
 Glycerol mist Sodium
 fluoroacetate Glutaraldehyde
 Heptachor
 Hexylene glycol
 Hydrogen chloride
 Iodine
 Iron oxide
 Manganese tetroxide
 Methanol
 Methylal
 Nicotine
 Nitric acid
 Nitromethane
 Oxalonitrile
 Ozone
 Phenol
 Phenylethylene
 Picric acid
 Piperidine
 Quinone
 Resorcinol
 Strychnine
 Sulphur monochloride
 Tetrabromomethane
 Tolene Isophorone
 Tetramethyl pyrophosphate
 Tetryl
 Vunyl acetate
 Ketene
 Xylene
 Liquified petroleum gas
 Yttrium
 Lithium Hydroxide
 Zirconium compounds

The Third Schedule of Labour Act Included List Of Notifiable Diseases Are

1. Lead poisoning, including poisoning by any preparation or compound of lead or their sequelae.
2. Lead tetra-ethyl poisoning
3. Phosphorus poisoning or its sequelae.
4. Mercury poisoning or its sequelae.
5. Manganese poisoning or its sequelae.
6. Arsenic poisoning or its sequelae.
7. Poisoning by nitrous fumes.
8. Carbon disulphide poisoning.
9. Benzene poisoning, including poisoning by any of its homologues, their nitro or amido derivatives or its sequelae.

10. Chrome ulceration or its sequelae.
11. Anthrax.
12. Silicosis.
13. Poisoning by halogens or halogen derivatives of the hydrocarbons of the aliphatic series.
14. Pathological manifestations due to
15. radium or other radio-active substances.
16. X-rays.
17. Primary epitheliomatous cancer of skin.
18. Toxic anaemia.
19. Toxic jaundice due to poisonous substances.
20. Oil acne or dermatitis due to mineral oils and compounds containing mineral oil base.
21. Byssionosis.
22. Asbestosis.
23. Occupational or contract dermatitis caused by direct contract with chemicals and paints. These are of two types, that is primary irritants and allergic sensitizers.
24. Noise induced hearing loss (exposure to high noise levels).
25. Beryllium poisoning.
26. Carbon monoxide
27. Coal miners' pnoumoconiosis.
28. Phosgene poisoning.
29. Occupational cancer.
30. Isocyanates poisoning.
31. Toxic nephirits.

Industrial laws regarding toxicity and role of industries for paying social responsibility by reducing toxicity:-

This can be divided into three categories

- 1: Employers responsibility.
- 2: Eorkers duties.
- 3: Suppliers responsibility.
- 4: Employers responsibility
 - All the chemical should be marked or labelled.
 - Employers should have data sheet of hazardous chemicals used at workplace. These data sheet should be accessible to all the worker who are using those chemicals.
 - Appropriate measures should be taken to avoid risk.
 - The worker should be given appropriate clothing and protective equipment from the employer side.
 - Employers should follow all the guidelines, standards and code regarding safety in the use of chemical.
 - Employers should proper supervision of work, process and use of the control measures given.
 - Employers should make adequate arrangement to deal with the accidents involving chemicals like exposure, explosion, fire etc.

- Proper necessary and appropriate training and instruction should be given to workers by employer side as safety and precaution.

Workers duties

- Every worker should follow all reasonable steps to avoid or minimise risk from the use of chemicals.
- Workers should take care of all health and safety issues for himself and others.
- Workers should use all safety like apron, helmet, gloves, specs etc.
- Suppliers responsibility-
- Proper labelling of hazardous chemicals.
- Datasheet regarding hazardous chemicals should be provided.

These information should be available at the workplace about chemicals

1. Company identification.
2. Product identification.
3. Information about the content.
4. Hazard identification.
5. First aid measure.
6. Storage and handling.
7. Protection details.
8. Sensitivity and reactivity.
9. Information about toxicity.
10. Disposable details.
11. Transport information and accidental details.
12. Complete information about regulation.

Expected accidents which may create toxicity are

1. Explosion Accidents may occur due to explosion of flammable substances which may create toxicity around the surrounding's.
2. Chokes and baffles may also affect fire or explosion within areas of plant.
3. Direct contact of chemical in any part of body it may react sometime only allergic, sometimes very dangerous.
4. Leakage of chemical or gases in surrounding can cause immediate or after sometime damage the surrounding and people.

Suggestion to reduce toxicity in chemical areas

- Individual or group counselling about hazardous product and safety measure regarding those substances which are explosive in nature.
- Literature or poster should be available from the organisation concerned with accident prevention. These study material should be distributed to needful with making assure the message should not be misunderstood. These material can be

distributed by placing them in shop, health clinic, library etc.

- Internet, information related to toxicity can also be available in internet but it is having limitation that it is useful for those people only who access to computer.
- Training regarding to storage of chemical should be given to worker and people related to them.
- Motivating and encouraging people for some emergencies at home like first aid, educational material and videos related to chemical substances, flammables etc.
- Determining risk which includes all risk involved by using all chemicals.
- By making exposure control toxicity can be reduce or controlled.
- Proper labelling which includes common chemical name, symbol or logo, warning etc.
- General training should be given to all regarding toxic substances about emergency, respiratory protection and use.
- Workers awareness and motivating with supervision should be there from employees regarding any critical condition in chemical areas.

CONCLUSION

Environmental laws and regulation had been made to provide healthy and clean environment for labour and general people. These law consist of limit of dos and don'ts for people who working in chemical areas and generally dealing with toxicity and also include method and procedures and precaution should be taken especially dealing with highly sophisticated chemical and toxicity substances. These law also gives employers and suppliers duties towards society especially people who are working for and with them. The objective of these chemical toxicity reduction or control laws and legislation will be completed only when everyone including employer's, labours, suppliers and society will take all these issues ethical but not only as a legislative obligation.

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