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# Applicable Legal Requirements in a Construction Site

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**Abstract**— Most of the Indian construction firm has not utilized the legal requirements in the construction site. The aim of this study is to create the legal register module for the construction companies and comply with the requirements. It identifies and analyzes the different types of legal risks involved in the construction site. It also outlines the risk that the professionals may face in their legal implementations. The primary objective was to examine compliance with safety requirements in the construction industry. The level of safety compliance across the sites was quite variable. Hence this report evaluates compliance with health and safety legislation at the construction site. The industry needs to implement application frameworks and legal restructuring of the existing related laws and regulations. Accidents that took place in the site are taken for case study purpose and the failure in the legal requirements in the construction site is examined and reviewed.

**Keywords**—legal requirements, evaluation compliance, legislations, laws and regulations

## I. INTRODUCTION

This Construction Health and Safety is of significant importance to the improvement and sustainability of the construction process. This is why at various levels of the construction process, clients, project managers, architects, engineers, contractors, subcontractors, suppliers, and manufacturers have endeavoured to improve Health and Safety management practices in construction. However, the implementation of Health and Safety in construction has not resulted in a commensurate improvement in the industry. The thrust of the issue is the assessment of the level of knowledge of legislation through the devolution of responsibilities to stakeholders; and perceptions relative to H&S.

The H&S at Work Act for different countries realizes responsibilities for employers, designers, principal contractors, and other construction project participants. Statutory responsibility for enforcing these regulations rests with governmental departments tasked with H&S monitoring and inspection. However, inadequacies related to H&S legislation, and increased litigation in construction amplifies the need for collective effort and commitment in order to advance the level of H&S in construction<sup>[1]</sup>.

Safety and health occupy a significant place in India's Constitution, which prohibits employment of children under the age of 14 in factories, mines and hazardous occupations.

This policy aims to protect the health and strength of all workers by discouraging employment in occupations unsuitable to the worker's age and strength. It is the policy of the State to make provisions to secure just and humane conditions at work. The Constitution provides a broad framework under which policies and programmes for occupational health and safety can be established.

## II SCOPE AND OBJECTIVES

The primary objective of this study was to create the health and safety legal register module for all construction firms and comply with the requirements. This goal was realised through the following objectives:

(i)To examine and review the various applicable acts complying with health and safety requirements in the construction industry.



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(ii) To create the legal register module for the construction companies and comply with the requirements.

(iii) To establish what factors are significantly associated with safety compliance.

(iv) To investigate management practices & associated documentation related to safety.

(v) Case study- fatal accidents that have taken place in the construction site.

### III RESEARCH METHODOLOGY

The methodology for achieving the above objectives is as follows,

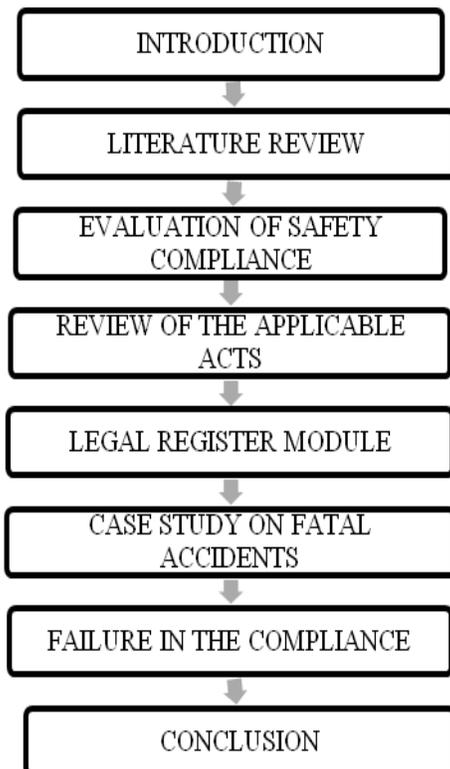


FIGURE 1 METHODOLOGY FLOWCHART

### IV LEGAL

#### A. Legal Compliance

The legal compliance includes state and national acts, regulations, and codes of practice, compliance codes and standards.

The following legal acts will be included in the research,

- Building and Other Construction Workers Act 1996 <sup>[2]</sup> & Tamilnadu building and other construction workers (regulation of employment & condition of service) Rules 2006 <sup>[4]</sup>
- The Petroleum Act 1934 <sup>[7]</sup> & The Petroleum Rules 2002
- Motor Vehicles Act, 1988
- The Water (Prevention And Control Of Pollution) Act, 1974 & Rules 1975
- Air (Prevention And Control Of Pollution) Act, 1981
- The Noise Pollution (Regulation And Control) Rules, 2000
- Battery (Management And Handling) Rules, 2000
- Explosive Act 1884 & Gas Cylinder Rules 2004
- The Indian Electricity Act 2003 & Rules 1956

The model of the legal register is shown in the table 1

#### B. Construction Industry Provisions

As for the legal provisions, The Government of India has made an enactment in 1979, in the name of "Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act 1979". The act covers only for inter-state migrant workers. It lays down regulations in terms of payment of wages and extension of amenities, registration of such workers and obtaining license for such recruitment from the contractors <sup>[3]</sup>.

The Building and Other Construction Workers (Regulation of Employment and Condition of Services) Act, 1996 came into existence for the betterment of building and construction workers both the local State workers and migrant workers. The challenge for the authorities of the Welfare Board is, to identify the building and construction workers and bring them under the Act, in order to extend benefits through Welfare Scheme <sup>[3]</sup>.



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#### C. Legal Aspects

Legal aspects are an indispensable part of a health and safety in construction industry. They reflect the policy framework for the organisation. Legal aspects ensure that every company is functioning as per the statutory framework. Every enterprise must take into account the legal set up while framing the basic aims and objectives of its company.

This is because; it is necessary for efficient and healthy functioning of the organisation and helps it to know about the rights, responsibilities as well as the challenges that it may have to face. In India, the most important law is the building and other construction workers act and it contains many provisions relating to the workers and the employees.

TABLE 1 LEGAL REGISTER

Reference Acts	Brief Description	Evaluation Frequency	Compliance Status
<b>The BOCW Act 1996</b> Chapter VI – Section 32 <sup>[5]</sup>	Drinking Water 1) A sufficient supply of drinking water shall maintain at suitable points. 2) Should be marked as “Drinking Water” in local & national language 3) No such point	Monthly	Yes

	situated within 6m of any latrine.		
<b>Motor Vehicles Act, 1988</b> (Sec: 3) Necessity for driving license <sup>[6]</sup>	No person will be allowed to drive a motor vehicle unless he holds a valid driving license issued to him authorizing him to drive the vehicle	Quarterly	yes
<b>The Petroleum Rules 2002</b> (Sec: 9) Prevention of escape of petroleum <sup>[7]</sup>	All due precautions will be taken at all times to prevent escape of petroleum into any drain, sewer, and harbor, river or watercourse or over any public road or railway line.	Quarterly	yes



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#### D. Legal Framework

The legal framework is provided by the Health and Safety at Work etc Act 1974 (HSWA), whose premise and main principle is that those who create risk from work activity are responsible for the protection of workers and the public from any consequences.

The Act places specific responsibilities on employers, self-employed people, those in control of workplaces, employees, designers, manufacturers, importers and suppliers. Associated legislation places additional duties on owners, licensees, managers and people in charge of premises.

#### E. Legal Register

The Legal Register module provides a tailored register that is focussed on health and safety compliance across all of the construction projects. It is essential for the organisation to understand what these legal requirements are, to enable effective controls to be developed / implemented, and also for effective terms and conditions to be written and communicated to their contractors/sub-contractors for projects.

This module helps to drive health and safety compliance across the entire organisation and presents all of the relevant information through one portal.

The Legal Register module offers a number of additional benefits to the firm, including:

- (i) A well structured and integrated document;
- (ii) A single point of reference where project managers / site managers or any interested party (who has authorized access), can clearly see the project's aspects assessment, applicable legal requirements, and a summary of the necessary controls to be applied;
- (iii) Links to internal documents, i.e. standard operating procedures, internal processes etc;
- (iv) A series of approved codes of practice or guidance documents issued by the Regulator

#### V CASE STUDY

##### A. Case Study Analysis

Fatal accidents that took place in the construction site are taken for case study analysis. Failure in the legal requirement is been mentioned in the study.

##### 1. Case Study: Collapse Of Trench

TABLE 2 CASE STUDY ANALYSES

Evaluation of loss -	Fatal
Type of contact -	Buried
Direct cause -	No shoring for trench work
Indirect cause -	Unsafe work area, Inadequate Safe Work Procedure, Poor emergency response
Failure in system -	no safe work procedure

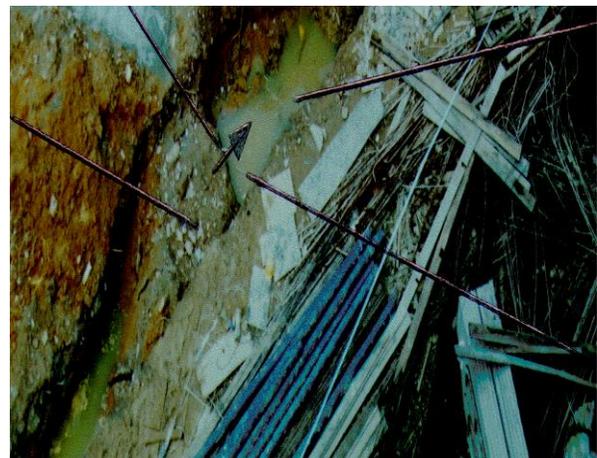


FIGURE 2 COLLAPSE OF TRENCH



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#### *Failure in Legal Requirement*

BOCW – Tamilnadu Rules - Part III – Safety & Health Chapter – VI<sup>[4]</sup>

1. Rule No: 42 Slipping, tripping, cutting, drowning and falling Hazards

- 1) All places shall be kept free from accumulations of dust or similar obstructions that cause tripping.
- 2) Wherever workers are exposed to the hazard of falling the following should be provided,
  - i) Well-equipped takeoff manned with trained personnel.
  - ii) Safety net and adequate equipment should be provided with the national standards
  - iii) do not use any elevated working surface, Open side shall be guarded by the employer except where free access is necessary by the nature of the work.

2. Rule No: 36 Emergency action plans

Every employer shall ensure that in case more than 500 workers are employed at construction site, emergency action plan to handle the emergencies like,-

- (a) fire and explosion,
- b) collapse of equipment, structures, etc.,
- c) land sliders getting worker buried, and natural calamities, is prepared and submitted for the approval of the Chief Inspector

#### VI. CONCLUSIONS

Legal requirement is the foremost one for safety in the construction site. Thus the various applicable legal requirements for health and safety are sought for implementation. Certification standards for the firm also define the necessity of assessing legal requirements for the industry. Health and safety legislation in the construction industry involves many rules and regulation. The legal register module helps to implement a management compliance system that provides an up-to-date customised register and an internal audit tool which meets ISO clauses, allowing them to benchmark site performance and identify any gaps in H&S management.

Hence this report evaluates compliance with health and safety legislation at the construction site. The fatal accidents are taken for the case study analysis and the failure in the legal compliance in the site has been mentioned.

The report is set out as follows: Name of applicable legislation, Brief explanation detailing key requirements of the legislation, Evaluation compliance statement: shows whether, and in what way, the company is compliant with the legislation. Hence the construction industry needs to implement application frameworks and legal restructuring of the existing related laws and regulations.

#### *References*

- [1] Charles Chiocha, John Smallwood & Fidelis Emuze 2011 “Health and safety in the Malawian Construction Industry” pg 68-80
- [2] Jagdish Patel “Legal Provisions for protection of health and safety at work in India”.
- [3] R.S.Nithin Prasad, K.Vittal Rao, H.N.Nagesha 2011 “Study on Building and Other Construction Workers Welfare Schemes/Amenities in Karnataka”, Sas Tech Journal Volume 10 issue 1, May 2011
- [4] Tamilnadu building and other construction workers (regulation of employment & condition of service) Rules 2006, Part III Safety & Health chapter6GeneralProvisions.[http://www.sunshineconsultants.co.in/yahoo\\_site\\_admin/assets/docs/TAMILNADU\\_RULES.311184956.PDF](http://www.sunshineconsultants.co.in/yahoo_site_admin/assets/docs/TAMILNADU_RULES.311184956.PDF).
- [5] The building and other construction workers [Regulation of employment & condition of service] act, 1996 Chapter 6, Available from World Wide Web: <http://clc.gov.in/acts/shtm/bocw.php>
- [6] The Motor Vehicles Act, 1988 Available from World Wide Web: <http://as2.ori.nic.in:8080/web/cmfvacts.jsp>
- [7] The petroleum rules, 1976: preliminary, part II General provision, Available from World Wide Web: <http://petroleum.nic.in/lrrules.htm>