

Study of Health and Safety of Employees in Construction Sector

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Abstract:- The construction sector research paper is to understand how to Manage health and safety of employees in organizations. In order to achieve safe construction targets and goals within time frame. Safety management system play the major roll in any kind of construction work and also it is a legal requirement by the client. The main goal of any contractor is achieving our target with security and safety of our working staff. The contractor and client both are accountable for workers health and safety issues. As a contractor side we have also responsible for create healthy working environment at project site. So, the all goals every company make his own health and safety policy for develop good healthy and eco-friendly safety culture in organizations. The health and safety policy help to effectively execute of safety management system in any organizations. Our goal of this publication is how to promote and developed safety culture in organization and why it is required necessarily.

Keywords:- Safety Plan, Health & Safety Management System, Working condition, health monitoring, safety Audit.

I. INTRODUCTION

In this project we have taken bhopalMetro structures work for analysis for safety and health Bhopal as work starts in 3 years ago. The Metro in Bhopal is a heavy system so the chances of hazards and incident are not negligible. Construction of metro onsite involve of many labor and equipment. By which the work execute different types of task related to each other. The safety of workplace is an essential component of competence and productivity. Safety is the process of being protected against physical, social, spiritual, economical, political, emotional, occupational, psychological, consequences of failure, injuries, accident, damage or any other event which could be considered non-desirable. It becomes necessary to consider certain safety measures and program to prevent accidents and injuries at site and helps to shaping employees beliefs and attitudes that lead to safe behavior and ultimately to a strong safety culture.

➤ **Dynamic response parameters** - Dynamic analysis is to be carried out if the fundamental frequency of the bridge is less than 3.0 Hz, but no detailed vibration requirements are given by AASHTO. These can be considered as per Ontario code recommending for highway bridge and for pedestrian bridge. Similarly, Cpl 7, Part2 (UK) provides limits on bridge deck vibrations.

- **Elements of Health & Safety Objectives** - The first object and targets of any company to protect and safe our work force. In the construction industry it is seen so many incidents and accident happened in the previous years. I have experienced so many kinds of major accidents and fatalities cases. Its us main goals to reduce the number of incidents and accidents, zero fatalities, avoid permanent disability cases and accident frequency rate (AFR). Compliance to all relevant regulatory and legislative requirements as per client /Gc requirement of project norms. India is a developing country and various construction projects are running. Similarly, safety culture also developed in our country.
- **Finding hazards condition** - Each and every project HSE department is the responsible to Occupational Health and safety of the work force and company properties. Safety department submit safety plan to his client and execute this plan to achieve our H&S targets. Emergency response team (ERT). Emergency response Plan, HIRA, JSA, TRA, TBT. Training's Method statement of each activate, risk assessments, PTW, Audit its major key factor of any kind of H&S plan. The main motive of all this to H&S awareness for all our project members and work force.
- **On site safety** - Health and safety Management system is an important part of the company Organisation management system which was covered company policy's, planning of project, rolls and responsibilities, developing -implementing and reviewing health and safety policy. Contractor of metro projects has implemented HSE management system for metro projects and submit HSE plan which was approved by client hand. Client always ensures the project was move according to HSE plan. Main content of HSE management system given bellow.

II. LITERATURE REVIEW

S.S. Raj & P.v.Chalapath (2016) - This study revealed that, management commitment has the highest driving power and the most dominant factor is safety International Journal of Modern Trends in Engineering and Research Volume 03, Issue 03, [March – 2016] ISSN (Online):2249-9045; ISSN (Print):2093-8061.

Mouleeswaran.K (2014)-This research shows that the major causes of accidents are related to the unique nature of the industry, human behavior, complicated work site conditions, and poor safety management, which result in unsafe work methods, equipment and procedures. Emphasis in both budding and urbanized countries needs to be placed on training and the utilization of comprehensive safety programs.

Subramani.T and Lordsonmillar.R (2014) - The study will collect data from general contractors includes, organizational safety policy, safety training, safety meetings, safety equipment, safety inspections, safety incentives and penalties, employees attitude towards safety, labor turnover rates and compliance with safety legislation and providing a set of recommendations and strategies to contractors for improving their safety performance.

Zhipeng Zhou, Yang MiangGoh, Qiming Li (2014)- In this research they focusing on topics such as i)safety assessment and safety program, ii)worker behavior, perception, and safety climate, iii)accident/incident data to improve safety performance design for safety, and safety

culture.This review can serve as guidance for future construction safety research.

Zubaidah Ismail, SamadDoostdar and ZakariaHarun (2012)-The perceptions of this paper is to,number of incidences among construction people and the level of awareness on matters regarding safety were also determined and provide suggestions on equipment design and improved work practices and actions to improve the efficiency and productivity.

SathishKumar.P.S, LogeshKumar.M (2012)-This paper analyzed the main cause of the low safety standards and working conditions at the construction sites. The criterions considered in this paper are (i) safety programs and policy, (ii) safety program execution, (iii) use of personal protective equipment, (iv)hazard and their guard, (v) housekeeping and (vi) emergency compliance.

III. METHODOLOGY

The method adopted in the present research is describe in the following chart in start of work to result and discussion



Fig 1:- Flow of Work

IV. RESULT AND ANALYSIS

The 200 worker are taken into accounts from the companies based on their s duty and working state. Around 160 responses record. The response rate is 75% which is considered a good response in this type of survey. Ask about general information about the site, the details of the safety policy and program, facilities availability in the site, record keeping, safety committee, hazard analysis, PPE usage at the site. Interviews of project managers, site engineer and laborers were taken for the purpose of the survey. Even email reply was accepted since it was difficult to get the direct one to meeting with the owners and project managers.

➤ *Statically Analysis*

SPSS Statistics is a software package used for statistical analysis. The current versions (2015) are officially named "IBM SPSS Statistics". The software name begin with Statistical Package for the Social Sciences (SPSS) was released in its first version in 1968 later than developed by Norman H. Nie, Dale H. Bent, and C. Hadlai Hull. SPSS is among the most broadly used software for statistical analysis

in social science. It is used by market researchers, health researchers, survey companies, government, tutoring researchers and others.

V. CONCLUSION AND SAFETY AUDIT

Leads the user through a structured process to identify and record essential information about each risk management critical task, such as which posts are responsible for executing and supervising these tasks, and how the task is documented and verified. This allows the practical implementation of the risk management process and provides full visibility of risk controls.

This work provides for-

- Structured method of activity and task analysis.
- The method for qualitative analysis of safety for recording results which effects analysis.
- Clear references to company standards and procedures.
- clear cross referencing between hazards and the activities and tasks providing control

- The ability to set objectives and targets for hazard management
- Facilities to check on completeness of data and to highlight conflicts or gaps
- An easily comprehensible graphical presentation of HSE information
- Customized hard copy reports.

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