

Evaluation of Safety Issues for Workers by Applying Safety Management System and Risk Assessment at Metro Rail Construction Work Project

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Abstract: Construction industry is one of the top dangerous industries in India because there is a high risk of accident occurrence where the construction workers are exposed to accidents such as fall from height. The awareness of safety at workplace in India has emerged since 1967 with the introduction of the Factories Act 1948 (FA), followed by The Act is administered by the Ministry of Labour and Employment. Rapid transportation system becomes a significant factor for the developing country. Apart from that it is very essential to control the traffic in the high dense and populated country like India. So this where the need of metro rail is generated. A metro project is carried out in Pune under Pune Metro Rail Project. This thesis work is carried out for a part of Pune metro project. In the present scenario, in India maximum accident occurs in construction industry as the Indian construction company is lacking a huge with updated safety instrument and lack of knowledge about safety. This studies is deals with the safety policies, there work environment, responsibilities of a safety personnel in company. The company has a very strict and well defined safety rules which follows BIS standard, OSAH standard and BOCW. The duty of safety engineer is to look after whether any activity, in the site or out of the site, related to the project is going safely or not. It has to be checked by safety personnel as well as the engineer whether any work is following the safety integral management system of the company.

At the design stage different activities must kept in mind and a safe design must be given so that to reduce the accidents. All activities must have the instructions separately to check the accidents like earthwork in it's as a unique activity so it requires the separate instructions. Some work could be done on the selection process of labour and supervisors and a good communication and better behavior could again check the follow up of different tools and equipment and precautions while working on the site. Training classes must be done on the site with proper process so that the importance of the safety gets clear to the labour with the benefits of that.

Keywords: Metro rail project, HIRA, safety, Health, Construction, Incidents, OSAH, BOCW