A report on health and safety in architecture

In simple terms, health and safety is about identifying risks and eliminating or controlling them to stop accidents and occupational ill-health. Today there is a high focus on safety in the industry. Many companies have documented that the safety and well being of their workers and fellow human beings deserve the highest priority. In history, this is a major leap. If one looks at the approach and many deaths during projects such as the great Chinese wall, which is still measured to be the largest construction project to date, the dive is visible.

One ancient Chinese myth states that each stone in the great Chinese wall stands for a life gone during the wall’s construction. Although no files are obtainable this myth may be nearer to fact than we would like to think. Archaeologists have revealed thousands of bodies covert in the foundation of the wall. Bodies were also used to make up the wall’s thickness. It has been estimated that millions of workers lost their lives due to accidents, strong physical labour, hunger, and disease. This is in the order of size of a life per metre of wall length!

Statistics from the UK Health and Safety Executive show that normally one or two people are killed every week as a effect of construction work. Occupational ill-health, which can build up over time, accounts for further loss of life. This fact sheet provides an foreword to health and safety best practice for construction companies and construction industry professionals, clients and their advisors. 2. 2 million people work in Britain’s construction industry, making it the country’s biggest industry. It is also one of the most risky. In the last 25 years, over 2, 800 people have died from injuries they

received as a result of construction work. Many more have been injured or made ill.

One in five construction sites failed health and safety checks during the latest national inspection proposal carried out by the Health and Safety Executive (HSE), Inspectors from Britain’s workplace regulator visited 1759 refurbishment sites during March and checked on how 2145 contractors were complying with health and safety regulations. On 348 sites sufficiently grave risks were discovered to warrant enforcement action being taken – either stopping work straight away or ordering improvements to be made (Phil Hughes, 2005).

PROVISIONAL TITLE

“ HOW CAN WE IMPROVE THE SAFETY PERFORMANCES AT CONSTRUCTION SITES. STUDY THE DIFFERENT SAFETY MEASURES FOLLOWED IN GREAT BRITAIN.”

This paper investigates the existing safety measures at construction sites in Britain. The review of literature touches on the importance of safety in the construction industry, the types of construction hazards, British Labour Law on the protection against occupational risks and industrial accidents, construction site security, etc. The background of Britain is described; a study of safety levels at construction sites is conducted through questionnaires. Conclusions are made about the legal approaches to the regulation of occupational safety and health.

AIMS AND OBJECTIVES

Aim:

To investigates the existing safety measures at construction sites. Study the importance of safety in the construction industry, the types of construction hazards, industrial accidents, construction site security, etc. Analysis the health and safety in British constructions.

Objectives or Purpose of the study:

To achieve the goal of this study, it is needed to:

1. Make a brief overview of all health and safety in the present construction industries.
2. Analyse the ways in which these safety measures are using in various construction industries.
3. Study on British construction industries and their way of using safety measures.
4. Identify recent accidents occur at construction industries in Britain.
5. Attempt a brief comparison between the difference in safety measures using in Britain and other developing countries.
6. Suggest various ways to reduce accidents at construction sites by using safety measures effectively.

LITERATURE REVIEW

Due to the current condition of the U. S. economy, the construction industry is throbbing. The amount of financial support from both government and independent contracts has been adequately decreased; contractors are going to have a hard time funding and implementing their projects. Construction deals are being broken down and shut down due to a lack of

capital while others are rolling without the correct needs, safety standards, and training programs. When the latter occurs there is a far greater risk for a construction accident to happen.

Structures used to facilitate construction, such as framework and scaffolding, are often not given the importance they deserve, because of their momentary nature and because their cost is not recoverable from a single construction as a line item. Consequently, in many countries, the accident and failure rate for temporary structures are higher than those in eternal structures. Every industrial accident leads to tragedies such as injury or death to persons, and damage to property and the environment, with all the linked direct and indirect costs and effort. Economically and professionally more important is the fact that accidents also lead to delays in the construction process. All these add up to unwanted repercussions, not only on the workers and the organizations concerned, but also on the entire construction industry, the community, and, if the accidents and failures are sufficiently great or frequent, on the government itself. Most of the accidents and failures in momentary structures may be traced mainly to minor mistakes in fabrication, to moderately inexpensive items of materials or equipment, and to oversight or negligence in the functioning of applicable codes and regulations (Alan Griffith, 2001).

Statistic has shown that the number of casualty and permanent disablement cases due to accident at the Malaysia construction sites is one of the uppermost as compared to the other sector. Even though the number of engineering accidents decreasing but the benefits paid to the accidents victims are ever increasing. Hence, there is an burning need to mitigate this

problem. There are three basic steps that should be taken namely identifying the hazard, assessing the risk and domineering the risk to ensure a safe and conducive working condition. Implementation of effective hazards control methods may require different approaches due to changing of working environment at the construction sites. Latest technology employed at site had wiped out traditional method of construction and consequently bring in new types of hazard to the industry.

There is an state compulsion for workers to ensure their own safety and health and, in agreement with specific instructions and the preparation they have received, to make correct use of safety devices and observe all safety rules, both collective and individual, and any other means of protection, warning or control. This obligation also extends to the use of machinery, equipment, tools, substances and risky products to ensure that inappropriate use does not jeopardise the health and safety of other employees and persons who may be there in the place of work.

The basis of British health and safety law is the Health and Safety at Work etc Act 1974. The Act sets out the general duties which employers have towards employees and members of the public, and employees have to themselves and to each other. These duties are capable in the Act by the code of ‘ so far as is reasonably practicable’. In other words, an employer does not have to take method to avoid or reduce the risk if they are technically impossible or if the time, trouble or cost of the measures would be grossly disproportionate to the risk. What the law requires here is what superior management and general sense would lead employers to do anyway: that is, to look at what the risks are and take reasonable measures

to tackle them. The Management of Health and Safety at Work Regulations 1999 (the Management Regulations) generally make more clear what employers are required to do to manage health and safety under the Health and Safety at Work Act. Like the Act, they apply to every work activity (Vivian Ramsey, 2007).

The injure and death rate on building’s sites in London makes construction work the most risky job in the capital. People are injured every day and on average someone dies every month. What makes this even more appalling is that these are the least accident rates yet recorded. Our report is concerned with improving the health and well-being of London’s construction workers at a time when construction work is booming. Nearly £5 billion is being spent each year, just on new building projects. It is clear that we are not yet doing all we can to stop accidents. The industry has set itself targets to reduce accidents, but is not yet on track to reduce these targets. Everyone involved in commissioning, delivering and working in construction still must do more to make this industry as safe as any other. We should not accept as a fact of life that construction work is dangerous and nothing can be done. The 2012 Olympics is the perfect cabinet for how construction projects can be Commissioned and delivered to the highest standard. We do not want a repeat of the Situation in Athens where 14 workers died on the projects unswervingly associated with the Olympics and as many as 26 in the building of following transport infrastructure (Richard Fellows, 2001).

Complete safety does not exist. Safety is often defined as taking acceptable risks. This recognises that in fact every activity, whether it is driving a car, cooking in the kitchen or working on a drilling rig has linked risks. By

accepting that there will always be a certain risk concerned it is possible to reduce risks, by dropping the chance of an unsafe event and mitigating its result. Lack of training has been recognized as one of the major contributory factors in accidents and ill health in construction. Many activities are made safe simply by ensuring that those doing the work have knowledge of and understand the importance of safe practices. The incidence of inspections depends on the nature and place of work. For example, following the first inspection, work at places over two metres in height require weekly inspections. In contrast, for work in excavations (including shafts and tunnels), inspections are necessary at the start of every shift. Inspections help to ensure that safety is monitored during changing site circumstances. Reports detailing inspections are generally required every time an inspection is carried out, but there are exceptions. Executive

Research Methodology

In order to understand the various health and safety measures in the present construction industries in Britain different methodologies have to be adopted.

Primary Sources

Interview

Direct Interview is one of the main sources of primary data today. This method would be used for the internal research. The internal research will focus on a few semi-structured interviews with a few senior and top managers. The intention is to formulate a true picture of the health and safety measures used in Great Britain These interviews will help to find out the reasons for the accidents occurring in construction industries.

Questionnaires

Another methodology that I hope to adopt for my research is the questionnaires. Questionnaires are more economical, and easier to arrange; the answers too will be in a standardized format. In situations of difficulty to get appointments with the top-level managers this method would be used. Postal questionnaires will be sent to top managers of the Companies and the responses can be analyzed.

Secondary Sources

Book Reviews

The external research will be carried out through the reading and understanding of published material. This includes books and articles written on the importance of safety in the construction industry, the types of construction hazards, British Labour Law on the protection against occupational risks and industrial accidents, construction site security. Etc.

Internet Research

Internet research is another source of secondary data. This will be used to gather historical and current information on health and safety in the world especially in Britain. This will also help us to get information on Company infrastucture as a whole.

Documents

Documents can be treated as a source of data in their own right. In effect it can be an alternative to questionnaires, interviews or observation. This includes published materials of company details

Data analysis

In order to analyze the data both quantitative and qualitative research has to be performed.

Qualitative research

In qualitative research words are the units of analysis. Qualitative research tends to be associated with description. The data needed for qualitative analysis has to be gathered from interviews and questionnaires. Methods like ethnography will be used for the process of qualitative analysis and ethnographic data storage software will be used to store information. There are many advantages of using such software which will help store the data safely, the data can be coded easily, and retrieval of data will be more reliable. Computerization removes barriers and scales to the scale and complexity of analysis. There are virtually no clerical limits to how much stuff you get now, and few to how complex it is. (Richards and Richards 1993: 40)

Quantitative research

Quantitative research tends to be associated with numbers, as the unit of analysis and it tends to be associated with statistical data. Charts and graphs have to be constructed from the figures and information gathered from the questionnaires and researches. Word processing and spreadsheet packages can be used for this purpose. Information in the form of numbers will be gathered from Company Mangers by using different data collection tools like questionnaires, review of previous documents etc. and the data will be used to construct meaningful figures and charts using software.

Form of Presentation

The dissertation will be presented in a written form supplemented with charts showing current and historical data.

Projected Findings

The importance of health and safety measures in the construction industries and the methods used in Britain.

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