

# Safety Management for Demolition Of Building

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**Abstract-** This study contains safety management in Demolition of any structure. Demolition means destroying or falling down of a structure or building with the help of equipments, machineries, and explosives or with manual techniques without affecting the surrounding environment or structures. By selecting the appropriate techniques for demolition depending upon the situation, accidents are reduced with less environment impacts. The safety management is to provide safety during building demolition, to reduce the risk of injuries to people and properties, for the health and safety of the workers on site, to reduce the impact on the neighborhood environment and for safe removal of debris. Demolition poses a risk to not only the employers but also to adjacent structures, their occupants and other people nearby. For small buildings it is a simple process with light equipments but in case of larger buildings it may require the use of a wrecking ball, cranes, other mechanical equipment etc. Explosive demolition is the preferred method for safely and efficiently demolishing larger buildings and skyscrapers.

## I. INTRODUCTION

Safety management is sophisticated process in demolition. The demolition technique adopted depends upon factors such type of structure, as site condition, age of building, height of building and cost allotted for demolition. For demolition Following two main factors are important first surrounding environment and second the structural stability. Aspects related to environmental, occupational safety and health comes under safety management for demolition of building.

## II. OBJECTIVES

1. To understand concept of safety for demolition of building.
2. To study Steps for safety management in demolition.
3. Discussions and conclusion for effective safety management of demolition of building.

## III. SCOPE

Scope of work is for minimizing the risks of

(A) Causing damage to properties of the public and peoples.

- (B) Endangering the safety of site workers and their health.  
(C) Damages to the nearby environment.

## IV. LITERATURE REVIEW

Code of Practice for Demolition of Buildings (2004) Hong Kong This Code of Practice outlines good practices for the planning and implementation of demolition works for different types of buildings in Hong Kong.

The Code is intended to give guidelines for safe procedures and engineering practice for various demolition methods and to provide guidance on the compliance with relevant requirements of the Buildings Ordinance and its subsidiary regulations. Aspects related to occupational safety, health safety and environmental safety should be referenced to other relevant ordinances and regulations.

Demolition Of Buildings – Code Of Safety Is 4130-1991 (Reaffirmed 2002) this code gives guideline to lays down the safety requirements for carrying out safely the demolition/dismantling of all types of buildings, for example, residential building ( load-bearing structure, multistoried framed structures ), public buildings and factories.

Demolition Work Code of Practice (2016) Australia This Code provides practical guidance to persons conducting a business or undertaking on how to handle the health and safety risks associated with the demolition work. This Code applies to all types of demolition work.

The guidance in this Code is relevant to demolition persons as well as contractors conducting a business or undertaking who have management or control of workplaces where demolition work is carried out.

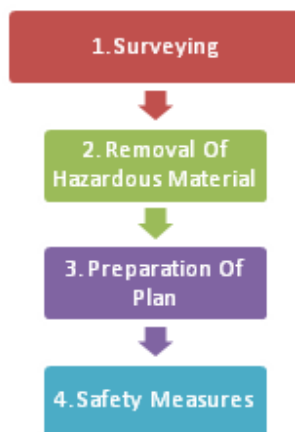
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(2013) shows that this paper is concerned with Demolition of any structure is a ground to earth technique which means falling down or destroying down of a building with the help of explosives, machineries and equipments or with manual techniques without affecting the surrounding. Demolition is a simple process for small structures or houses. The building is brought down either mechanically or manually using large

hydraulic equipment or large mechanical equipment for elevated work platforms like excavators, bulldozers or cranes. Demolition work is to be performed carefully and with number of different steps involved pre and post phase of the execution of a demolition process. The various steps involved before the demolition process includes surveying the site of demolition, removal of hazardous materials, and preparation of demolition plan with the precautionary safety measures and stability report to be taken for the surroundings and the workers.

## V. STEPS FOR SAFETY MANAGEMENT



### 1. Surveying

Study of different parameters with different views of its surroundings and the structure with structural point of view is carried in surveying. Two types of surveying which are mainly conducted. They are

1. Building surveying
2. Structural surveying

### 2. Removal of Hazardous Material

In the case when hazardous materials e.g., petroleum, or asbestos containing materials, are present, they shall be removed and cleaned/disposed of according to the statutory requirements administered by the Fire Services Department, Labor Department, Environmental Protection Department and any other Government Departments.

### 3. Preparation of Plan

A Demolition Plan and strategy shall include the following:

1. A detail layout plan of all floors of the building to be demolished.

2. Detail plan showing building location, Topography of the site and the distances from the building to be demolished to its adjacent buildings, streets, structures and significant street furniture.
3. A Detail plan showing the steps for the demolition.
4. Safety Measures include
  - Training to workers
  - Electrical appliances Safety
  - Maintenance of equipment from time to time
  - Occupational Health a priority
  - Fire and fire extinguishers
  - Emergency Exit in Demolition Sites for safety

## VI. DISCUSSION & CONCLUSIONS

Any type of building to be demolished, its method depends upon various factors such as type of structures, site condition, age of building, economy, height of building and most important its location with presence of its surrounding with its structural stability. Safety management for demolition of building is important to ensure safety of both the surroundings and the workers so as to cause least amount of injuries and accidents.

## REFERENCES

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