

# Essay on risk management in construction site

[Literature](#), [Russian Literature](#)



This paper is going to have two parts; part A and part B. the paper is going to be about risk management in a building and construction site whose plan has been given. In part A, the discussion will include different aspects of risk management like hazard identification, risk Assessment, control Measures and implementation of the measures and the monitoring and reviewing the effectiveness of Measures used in construction sites. Part B on the other hand will be about a fault that was observed in the scaffold of the building.

## **PART A**

### 1. Hazards identification

#### a. Scaffold

This type of hazard was spotted as the most prevalent hazard in this construction site. Several items in the building site can be identified under scaffold-related hazards. These items include the inspection, signage, toe boards, guardrail, working platform, ties, state of elements, access, and competence of the person. Different items can also identified as needing attention. The first item is the extra precaution condition. Like most of the building and construction sites, this site could still lack the intermediate kind of guardrails. When these guards are lacking the cases of physical injury during construction always increase. The second item under scaffold that needs extra attention is that of warning or barrier notices. In most cases, it has been discovered that most buildings that are under construction always have these notices unavailable most often. At other times still, these notices are not enough to present the people who are using unfinished scaffold with warnings. Lastly, the other item that could be identified is that the constructors could have done insufficient periodical inspection or they never

inspected the scaffold completely.

b. Power Access Equipment

The hazards that were associated with the equipment for assessing power include faulty power supply, absence of barrier, guardrail, and equipment security, insufficient operator's skill, and little competence of person in charge of the power supply. People are however, always more conscious in avoiding being struck at the power access points of the construction sites.

c. Ladder

The hazards that could be associated with the ladder in this construction site come in different forms. Examples of the different forms through which these hazards can arise include the ladder position, condition, and foundation, sideways slipping resulting from the unsuitable ladders and the prevention of the ladders from slipping sideways.

d. Roof works

In this construction sites, roof works is expected to cause some hazards. As far as roof works are concerned, the precaution and the care that is supposed to be taken in order to move people away from the area that is found below the roof where operation is taking place is always very important. Still in roof works, additional care and precautions need to be taken in order to prevent the debris of the building material from falling onto the people found below the roof of the building being constructed. Another measure that is important to be taken as far as roof works are concerned is that of putting in place guardrails and barriers that can prevent or cover the people work or pass close to fragile and risky material.

e. Fire and emergency

Like any other construction site, fire and emergency hazard is expected in this construction site. This is one of the widely highlighted hazards in any construction site. This hazard has been identified as the most prevalent hazards that all construction sites can have. Workers in any construction site are mainly exposed to this kind of hazard. The items that are hazardous as far as fire and emergency hazard is concerned include the way flammable substances are stored within the construction sites, availability, and suitability of extinguishers, emergency procedure, awareness, alarm, exit and ignition sources. The construction sites in most cases have been found to be lacking the emergency evacuation procedure especially in an event of fire alarm. At the same time, the workers in the construction sites have also been found to have little or no awareness concerning the emergency procedures at the construction sites.

Hazardous substances on the other hand have been found to be causing no hard time to the workers at the construction site since they are in most cases, aware of the dangers of inhaling any hazardous chemical.

#### f. Noise

As the construction process continues, many high sounds and noise would be produced from the operations. Therefore, if the workers do not wear appropriate hearing protection, chances of exposing themselves to auditory damage are high.

#### g. Protective clothing

Even as it is expected that workers dress in clothing that befits a construction site, some workers will still find a reason to do otherwise. This is because of the attitude they have regarding the use of the protective

equipment or clothing. Without putting on protective clothing, the workers expose themselves to different hazards.

#### h. Manual handling hazards

Most of the materials used in this building and construction are heavy. For instance, bricks, cement, sand, gravel, and even equipment are all heavy to be handled. However, workers at construction sites will still use their hands and energy in handling the same. Research has discovered that by straining lifting these heavy materials, chest damages are prone to arise. In their later days of their lives, construction workers will realize the effects of their manual work through chest related illness like coughing out blood.

#### i. Dangerous goods

Many building materials here will contain asbestos in them. Asbestos is one of the chemical compounds that have been discovered to be unsafe for the health of our bodies if breathed in. It is contained in various building materials like cement, sprayed surfaces, coatings and insulations. They can cause lung and chest diseases. Cancer can also result from inhalation of asbestos fibers.

#### j. Trenches and excavations

With trenches and excavations at this construction site, the workers can either slip or fall into them, the walls of the excavations can collapse and bury the workers inside, or the machinery can fall into the excavations.

## 2. Risk Assessment

In this case, we are going to see the possibility of abovementioned hazards causing a harm or injury to a person who is exposed to the hazard. Two kinds of injuries or harms are going to be identified in this case as the risks. Each

of the abovementioned hazards falls into at least one of the two categories of risks. The first risk is that of physical injury. This category of risk has a connection with the equipment used or the work processes. Climatic conditions can also present the workers with this risk of physical injury. For instance, such things as excavation, machinery and plant, roof work, ladder, manual handling, equipment for accessing power and scaffolds are potential in causing the hazard of physical injury. Scaffolds, roof works, ladder can cause physical injury related to being felled upon by objects or falling down from rooftop or ladder. Depending on the size and the weight of the material being handled, manual handling can cause a physical injury. Bigger and heavy objects are responsible for physical injury as far as manual handling is concerned. Fire and power access equipment on the other hand will result in physical injury related to being scorched or bruised by heat. Depending on the depth of the trenches and excavations, workers can get physical injuries if they fall into deeper trenches and excavations.

The second category of hazard likely to arise at the building and construction sites is the health hazard. As people work in the building and construction sites, they are likely to have ill health. This kind of health hazard can be categorized under biological, physical, and chemical hazards. From the abovementioned hazards, depending on the way an injury is managed, poorly managed physical injuries can finally lead to the onset of other health conditions like infection by pathogenic microorganisms. In this case, it means that health hazards may begin from the physical injury. Otherwise, noise presents a health hazard, if its frequency is higher than that received by our auditory system since it can lead to auditory damage. Failure to use

the protective clothing will also expose the workers to harmful chemicals that may cause skin-related health hazards. Manual handling will also lead to health risks of chest damage if the load or the weight is causing excessive chest straining.

### 3. Control Measures and Implementation of the measures

#### **Scaffolds**

The risks related to scaffolding can be controlled by installation of toe boards and kick boards to prevent workers from falling and prevent objects from falling on people. The loose bricks can also be removed to prevent them from falling on people. Planks have to be covered to prevent people from falling of sides or through. The tiebacks and the stabilizers should be put in place to assure safety in the entire scaffolding.

#### **Power access equipment**

The risks related to this equipment can be controlled by controlling and monitoring the amount of power supply, installing a barrier and guardrail to control the access, improving the equipment security, and ensuring that the operator has the necessary skills and competence.

#### **Ladder**

The risks related to this can be controlled by positioning the ladder well, ensuring that the ladder is in good conditions, has been placed on a good foundation, is suitable to prevent sideways slipping.

## **Roof works**

The risks that are related to this can be controlled by removing all the people below the roof, carrying objects, which are not too heavy, avoiding working on slippery roofs and installing toe boards and kick boards to prevent workers from falling.

## **Fire and emergency**

This risk can be controlled by keeping flammable substances away from the place where fire is.

The measure for controlling the risk resulting from noise is by using protective equipment that can prevent the high frequency of noise getting into the eardrums of the workers or reducing the amount of sound if possible. On the other hand, wearing protective clothing is equivalent to preventing the risk resulting from not putting on this clothing. For manual handling, the size and weight of the materials being handled has to be small enough to be handled. Therefore, bigger or heavier objects should not be handled manually. The use of Dangerous goods like asbestos on the other hand should be minimized in the construction sites, while warning signs should be put in place to keep people away from trenches and excavations.

### **4. Monitoring and Reviewing the effectiveness of Measures**

For us to monitor the effectiveness of measures put in place to reduce potential hazards in a building and construction site, we have to set a given number of construction sites, which are to be investigated and analyzed. For each of the potential hazard, we put in place the appropriate measures needed to prevent the hazard. Then we start investigating the hazards in the



different building sites. If for instance a measure to prevent the hazard of roof work or scaffold had been put in place in twenty different sites, workers will be allowed to work, and the building sites that had the hazards from roof work are then counted. If the number is small, it means the measure was effective. If the number is big, it means the measure was less effective. The same monitoring process applies to ladder, fire and emergency, power access equipment, dangerous goods, manual handling, trenches and excavations.

## **PART B**

Risks assessment: Scaffolding

After walking around the scaffold used by the bricklayers, I noticed a removed plank of brick.

In addition, the tiebacks or the stabilizers of the bricks have also been removed. As a result, what were left were loose bricks.

**Besides, some toe boards and kick boards had been removed from the scaffold.**

According to my assessment, something has to be done urgently before the scaffold exposes the workers to potential hazards.

Control measures

If Uncontrolled access to the scaffold , Incompetent persons are allowed to work at the scaffold having Loose toe boards, tie backs, stabilizers and kick boards, the potential hazards are obvious.

These hazards include the collapse of the entire building when the workers are working below, leading to a fatal incident whereby the workers are buried.

These hazards can be controlled by installation of toe boards and kick boards to prevent workers from falling and prevent objects from falling on people.

**The loose bricks can also be removed to prevent them from falling on people.**

Planks have to be covered to prevent people from falling of sides or through.

The tiebacks and the stabilizers should be put in place to assure safety in the entire scaffolding.