

# DEPARTMENT OF BUILDING

# FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING

# UNIVERSITI TEKNOLOGI MARA

(PERAK)

# **APRIL 2013**

It is recommended that this Practical Training Report prepared

 $\mathbf{B}\mathbf{y}$ 

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### Titled

# SAFETY AND HEALTH AT CONSTRUCTION SITE

accepted to fulfill part of the stipulation for Diploma in Building.

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### STUDENT DECLARATION

It is hereby, the work of writing the Practical Training Report was produced and wrote entirely by me except as stated throughout the practical training that I went through for 5 months starting from 12<sup>nd</sup> of November 2012 until 12<sup>nd</sup> of April 2013 at YNH Construction Sdn.Bhd. It is also one of the requirements to pass the DBN307 course and accepted to fulfill part of the stipulation for Diploma in Building.

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: 12<sup>nd</sup> April 2013

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That all, thank you.

# **ABSTRACT**

This report briefly describes the safety and health at construction sites. It is the result based on the experience of five months stationed at the project site. This report is divided into sections and begin with the company background and the background of the construction project. The observations found that the construction of a building is not as easy as with what we see. It involves many parties to complete the construction project and the construction process is also complex. In this report, explained briefly about the safety and health at construction sites. There are also the causes and ways to prevent unwanted accidents on site. Then explained that there is the risk of the site and the action to be taken when not in compliance with established regulations. During observation carried out, it can be conclude, this report defined ably more detail about safety and health at construction site.

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# LIST OF SHORT FORM

DOSH Department of Occupational Safety and Health

OSHA Occupational Safety and Health Act

PMA Permit Mesin Angkut

SOC Scaffolding Operator Certificates

SOP Standard Operating Procedure

NIOSH National Institute of Occupational Safety and Health

PPE Protective Personel Equipment

FMA Factory and Machinery Act

# **CHAPTER 1**

# INTRODUCTION

# 1.1 Acknowledgement

In line with scientific progress and technology, many opportunities in terms of occupation are wide's open in various fields. Malaysian government has done with thorough planning of industrial upgrading in line with the development of our country's current modernization. Building construction industry experienced a fast transformation in line with the technology. An experts team in the field of construction are racing to innovate and technological creations and building materials to build more stylish and realize the future building.

In present years, a growing number of development projects being built, it was like mushrooms after rain, it is in high demand by the various parties who want profits. Publicity on request and new construction of buildings is more to shown if compared with building maintenance.

Construction of building is now connected with the return on investment and the value of the building itself. The greater the investment made, the greater the returns. As a result, many construction companies are competing to get the tender to get the project, no matter who having more experience in the construction industry, and emerging want familiarized herself in the industry.

# 1.2 Objectives.

There are a number of objectives to be achieved in providing these Practical Training Report. The objective are following:

- 1. Identify hazards that exist in the workplace that may present risks of injury to workers.
- Evaluate any inherent risks associated with safety and health, and assess the risk that a priority in critical hazards.
- Give priority to safety and health hazards that exist and determine preventive measures to more critical hazards.
- Consider the steps in adapting existing hazards and how to control based on a hierarchy of risk control can either be eliminated or reduced.
- Provide recommendations to revise the program to ensure the effectiveness and success in carrying out control measures.
- 6. To enhance awareness among site staff on the safety and health measures put in place at the workplace.

#### 1.3 Scope of Study

This report is about safety and health at construction site. Safety is a matter that more importance in the construction area. This is due to the many possibilities that will happen to the employee if the employee ignores the safety and health rules at site. Construction of buildings especially those involving high-rise buildings it will exposure to hazard. This method is carried out at random in any examination relating to safety and health carried out to identify any hazards that exist in the workplace. Inspections are carried out by 'Safety Representatives' appointed and authorized to monitor any unsafe conditions. Examination of the method is based on Hazard Identification, Risk Assessment and Risk Control. (HIRARC).

These hazards can make a serious accident if control measures are not practiced. Dirty surroundings will also lead to safety and health is not good for employees. Employee needs to adopt control measures to the fullest extent possible. For example, workers should create a platform for every five story high building area.

Each item in the use of the site requires approval from DOSH and its must follow all regulations under Occupational Safety And Health Act (OSHA) and Factory And Machinery Act (FMA). Tower cranes are used in the site should get a PMA (Permit Mesin Angkut) from DOSH (Department of Occupational Safety and Health). The functional of DOSH is to remove the approval and authorization for the design, installation of machinery and repair procedures boiler, unfired pressure vessels and hoisting machinery.

Similarly, the scaffolding, it should get Scaffolding Operator Certificates (SOC). Besides, material also use at site should be assessed and inspected at least three times a month.

This is to ensure the safety of the workers. Safety at site should be in accordance with Occupational Safety and Health Act 1994 (OSHA). Employers should impose actions to employees who ignore safety at construction sites such as not wearing personnel protection equipment.

### 1.5 Method of Study

There are a few method of study that been used in this report. Among of them are:

#### 1.5.1 References

Overall this reporting method in this research is guided by a reference book. References is more theoretical and it contained depends on the facts. With this method, it can facilitate the process of information search. This method great help to get information. These information are based on fact and picture on the topic discussed. Examples of reference are the filling system such as FMA, OSHA, NIOSH, DOSH, SOP and others.

#### 1.5.2 Observation

Observation is one of the methods of learning and is easy to get information. Indirectly, through observation also can get all what we want and with learn easily understood, and any information we can get is accurate. Besides that we will also be able to know the ways and method of construction work more clearly that have done at site. Exposure in actual situation very different than theoretical learning achieved when learning.

#### 1.5.3 Interview

The interview is one of the more effective and efficient for information. Interview method carried out through bilateral conversation that involves issue and question. Interview involves party that is wise on study that wants to be done. This method is done by interviewing the employees or staff who have experience working on construction sites. Interview more clearly, if it is described by people who are so knowledgeable about that things.

## 1.5.4 Electronic Media

In science era and this technology, information can be achieve everywhere only regardless of time or place such as internet or website. Use of the internet is now the easiest and fastest. By using this media as the search of the problem or would like to learn all the new things very easily. All information obtained by electronic media no limitations and it is very effective for each user.

# **CHAPTER 2**

#### COMPANY BACKGROUND

#### 2.1 Introduction

YNH Construction Sdn.Bhd was incorporated in Malaysia 27 August 1988 as a private limited company under the name of Yu & Sons Sdn Bhd. It changed to present name 2 September 2005. Its main address for certification is located at No.49 Jalan Tebing, Off Jalan Tun Sambanthan, 50470 Kuala Lumpur, Malaysia. YNH Property Bhd was incorporated in Malaysia as a private company on 18 Oct 2001 and subsequently listed on the Main Board of Bursa Malaysia Securities Berhad on 9 December 2003.

YNH Property Bhd has an established business history dating back to 1982. It controls an estimated 65-70% market share in the Manjung township - comprising the town of Sitiawan, Lumut and Sri Manjung, Perak. It has successfully sold approximately 99% of the total residential and commercial units launched for all the completed projects developed since 1987 until now. Major role in the YNH Construction Sdn Bhd in this project is the main contractor. The scope and duties are to ensure the project is on schedule and the specifications set by the 'Tetuan', Kar Sin Bhd.

# 2.2 Company Profile



Company name : YNH Construction Sdn.Bhd

JKKP Registration number : JKKP/WP/10/03/8149

Scope of certificate : ISO 9001: 2008

: ISO 14001: 2004

Date of establish : 27<sup>th</sup> August 1988

Registered address : No.49 Jalan Tebing, Off Jalan Tun Sambanthan,

50470 Kuala Lumpur, Malaysia.

Telephone Number :

Fax Number :

Company Email : www.ynh.com.my

Contract sum : RM243, 800,000

LAD : RM 50,000/day

Class : A- Pusat Khidmat Kontraktor

### 2.3 Organization Chart

# 2.3.1 Company Organizational Chart

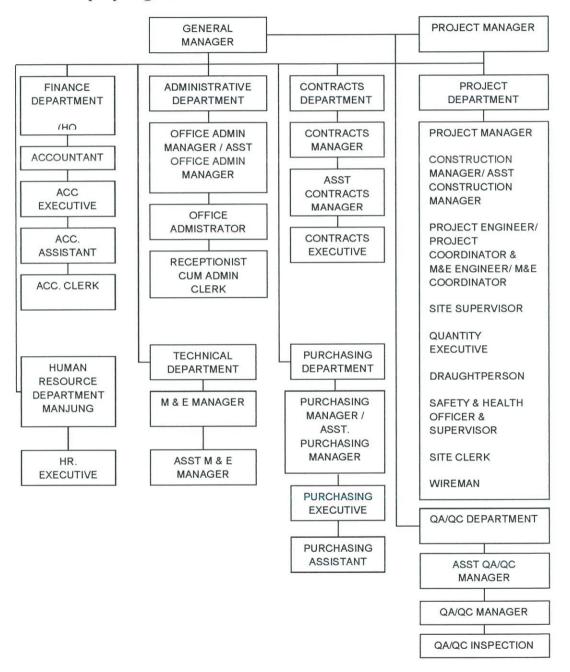


Figure 2.3.1: Company Organizational Chart.

Sources: YNH Construction Sdn. Bhd.

# 2.3.2 Organizational Chart for Project Pt. 6

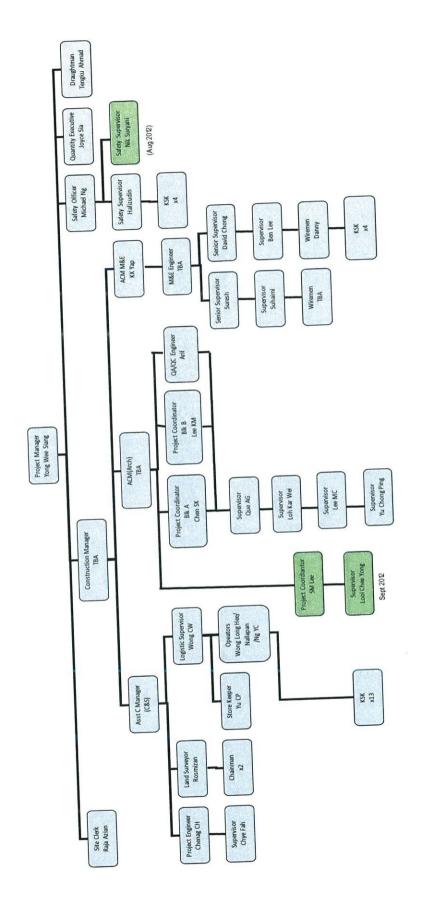


Figure 2.3.2: Company Organizational Chart (site office).

Sources: YNH Construction Sdn. Bhd.

# 2.4 List Of Project

# 2.4.1 Project have been done

Table 2.4.1: List of project have been done.

| BIL. PROJECT NAME COMPLETION DATE  1. CERIAAN KIARA, Lot 1889, Segambut Dalam, Jalan Kiara 3, Mont Kiara, Mukim Batu, Kuala Lumpur.  December 2009  Ceriaan Kiara  Photo 2.4.1: Photo of Ceriaan Kiara. |      | 1 4010 21 11  |                 |                  |
|---|------|---|-----------------|------------------|
| Lot 1889, Segambut Dalam, Jalan Kiara 3, Mont Kiara, Mukim Batu, Kuala Lumpur.  December 2009  Certaan  Kiara   | BIL. |   | COMPLETION DATE | PHOTO OF PROJECT |
|   | 1.   | Lot 1889, Segambut Dalam,<br>Jalan Kiara 3, Mont Kiara, | 2009            |                  |

|  | - 1 2000   | 1900 TO 1800 T |
|--|------------|--|
| <br>633 RESIDENCY Lot 633, Jalan Tebing, Off Jalan Sambathan, 50470 Kuala Lumpur | Early 2009 |  |
|  |            | Photo 2.4.2: Picture of 633 Residency.   |

| 3. | FRASER PLACE        |
|----|---------------------|
|    | Lot 163             |
|    | No 10, Jalan Perak, |
|    | 50450 Kuala Lumpur. |
|    |                     |
|    |                     |
|    |                     |
|    |                     |
|    |                     |

March 2013

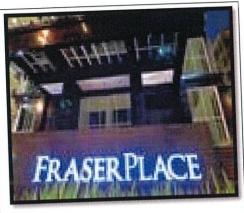




Photo 2.4.3: Picture of Fraser Place

# 2.4.2 Project on progress

To complete 2 blocks of serviced apartment tower with 446 units consist of one block for 22-story apartment and other one for 40-storey apartment block with 5 storey podium and first storey facility on Lot 188, Seksyen 44, Jalan Cendana off Jalan Sultan Ismail in Kuala Lumpur for "Tetuan" Kar Sin Berhad.



Photo 2.4.4 : Site office map.

# CHAPTER 3

# SAFETY AND HEALTH AT CONSTRUCTION SITE

# 3.1 Introduction

The safety and health regulations are a summary of the rules and regulations that the Employer requires all contractors and their sub-contractors to follow on their procedures of accident prevention.

They are not intended to be an all-inclusive set of rules, but are indicative of the level of care and attention to safety that all contractor personnel shall follow when working for YNH Construction's. The work shall not proceed until the proper precautions have been taken to protect the safety and health of all workers involved. Accidents and injuries are not a necessary part of any job and can be prevented by following the appropriate safe work practices.

YNH Construction is committee to maintaining safe and healthy working conditions for its employees, Sub-Contractors employees, suppliers and the general public and will ensure that its work practices and procedures meet all applicable legislation related to occupational safety.

All latest editions of applicable Federal and State Government acts, regulations, laws and codes shall be followed, including any required licensing of workers, inspection and certification of equipment. This includes, but is not limited to:

- a) Occupational Safety and Health Act (OSHA) 1994 and its regulations
- b) Factories and Machinery Act 1967 (Act139)
- c) The Radiation Protection (Basic Safety Standard) Regulations 1987
- d) Street, Drainage and Building Act 1974
- e) Uniform Building By Law

# 3.2 Project Background

Projects being implemented by the company is a proposal to build two tower of service apartments (446 units) containing the first block is Block A have 22 level and second block is Block B have 40 level with 5 level podium and one level facility on Lot 188, Jalan Cendana off Jalan Sultan Ismail, Kuala Lumpur. This project is the fourth project developed by YNH Construction. The project is estimated worth of RM243, 800,000. Project duration is 30 months. This project is started in 07 July 2011 until November 2013.

The department commonly found in the construction of a high- rise building is like a Civil and Structure work, Mechanical and Electrical, and architectural. The work environment for this project is located in the center of Kuala Lumpur, also known as the 'Golden Triangle'. Given that such a work environment, many factors related to the community especially should be a concern. Examples of noise exposure resulting in the construction site that will disturb the neighborhood or surrounding area. This is because it is dealing with a condominium and a luxury hotel.

In addition, in areas adjacent to the project site, there have another construction area and the behind of Islam graveyard. Such an environment would allow disclosure of any situation whether within or outside the project area itself.



Photo 3.2: Picture of on going project.

# 3.3 Safety And Health At Construction Site

In construction projects, the company must comply with the act issued by the FMA and OSHA. All of this act have been complied with as many hazards found on construction sites, particularly in the construction of high - rise buildings. Hazards can be identified in two aspects, namely:

- i) Safety aspects: associated with exposure to the safety of workers and the environment. Example:
  - a) Working in high places
  - b) Risk of items falling down
  - c) The installation of mirrors and windows (in the work of installation)
  - d) The use of the machines
- ii) Health aspects: associated with exposure to workers health.

Example:

- a) Exposure of noise from the machines.
- b) exposure to concrete (cement) to employees.

#### 3.3.1 Hazard Identification

There are five methods used in identifying hazards in the workplace. That are:

### i) Inspection Safety of Work

This method is carried out at random in any examination relating to safety and health carried out to identify any hazards that exist in the workplace. Inspections are carried out by 'Safety Representatives' appointed and authorized to monitor any unsafe conditions. Examination of the method is based on Hazard Identification, Risk Assessment and Risk Control. (HIRARC).

# ii) Safety Inspection by the Safety and Health Committee

This method is carried out on a monthly basis where it is performed by a health and safety committee appointed at the project site. Guidelines and location will be provided by the safety and health at work. All comments and feedback will be evaluated and audited in a week to settle up.

#### iii) Tool Box Talk and Employee Interview Sessions

Tool box talk held on the day of each week. During this time all the employees in the circumstances or nature of the work of each will indicate any problems or hazards that exist around their workplace. Interview session will be held after the completion of the assembly and it will be recorded in detail to this problem.



Photo 3.3.1: Toolbox talk.

# iv) Methods of Accident Reports and Disaster

It is a method of reporting any incident related accidents, occupational diseases, dangerous occurrences, and any damage to property. Question and answer method is used to find the detailed information for any conditions set forth herein. By such means, methods of prevention and investigation can be taken based on information obtained.

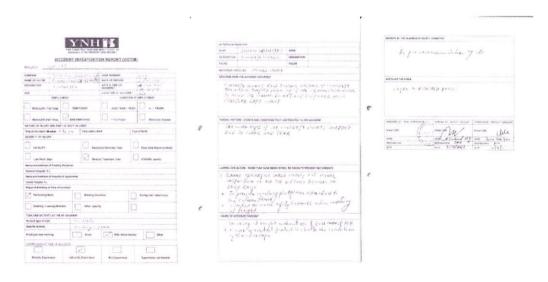


Photo 3.3.2: Example form of Accident Investigation Report.

#### v) Method statements

This method is based on the determination of the steps or procedures that must be followed when carrying out certain work. Career scope will cover the content of the materials, machines, and equipment that is used, the list of people responsible, safety, and security procedures are necessary. The risk assessment should also be provided.

# 3.3.1 (a) Classification of hazard

There are numerous hazards that may exist at the construction site identified. All hazards that have been identified need to be controlled as soon as possible based on the type of work performed, In this report, the critical hazards commonly found in the high-rise building in concrete work activities. Hazards are divided into safety hazards and health hazards, the example from each hazard are:

# i) Safety Hazards

- a) Concrete work at height.
- b) Concrete and falling objects.
- c) Concrete barrel fall.
- d) Concrete mixer truck.

### ii) Health Hazards

- a) Cement concrete exposure to workers.
- b) Exposure to noise caused by machinery concrete pumps.

#### 3.3.2 Risk Assessment

Before any work starts, a risk assessment of the hazards that may exist in the workplace needs to be done first. As a result, this risk assessment will be reviewed on the method statement or work order to determine a safe way possible. Evaluation method is also a process for evaluating risks that may exist related to health and safety due to the work done. This method should be comprehensive to routine or non-routine activities. Interpretation should be understood in performing risk assessments:

- a) Hazard : A result which could potentially cause injury to human, property damage,
   environmental contamination or combination in between.
- b) Danger: Exposure related hazards.
- c) Risk : Combination of the likelihood of danger incident.

Methods of risk assessment are usually using the measure of the quantitative, by displaying the relationship between the likelihood and severity circumstances. This method can be made more clear by reference to the two-dimensional matrix table. Here will be explained interpretation on the meaning of probability and severity.

- a) Likelihood: The frequency of the accident.
- b) Severity : Impact on the physical or financial impairment as a result of an accident.

## a) Severity

Degree of the severity of the risk assessment process can be divided into four categories in which it was given at the more specific numbers. Larger numbers it a greater impact on risk, and otherwise. Category is as follows:

Category 1 : Capable of injury (injuries that do not harm / only require treatment first

aid / miss accident).

Category 2 : Minor injury / minor (temporary injury and not a permanent injury).

Category 3 : Serious injuries. No deaths and injuries permanent / chronic infection.

Category 4 : Death and suffered damage to property.

#### b) Likelihood

Degrees to the possibility of the risk assessment process can be divided into four categories where larger values indicate greater likelihood that can occur, and otherwise for a small value. Category is as follows:

Category 1 : Very unlikely (could happen but the probability too small).

Category 2 : Highly unlikely.

Category 3 : The likely.

Category 4 : Very likely (could happen in normal conditions).

#### c) Risk

To study the effect of the risk more clearly. It can use diagrams / tables in quantitative. In the table shows the relationship between the severity and likelihood. The values in the table should be multiplied so that the required value at risk can be taken. Generally, the purpose of risk are as follows:

Risk = Severity x Likelihood

From value that can be taken from the above definitions, the risk to a state may be determined based on the magnitude of the risk. Based on the valuation of that, degree of risk exposure on a job that will be done in a place of work can be identified. Organization will decide to control the risks in accordance with the provisions provided effective.

Following are the table of the risk matrix:

Table 3.3.2: Example of Matrix Table.

|            | 1 410 14 6 16 12 |   |   |   |
|------------|------------------|---|---|---|
|            | SEVERITY         |   |   |   |
| LIKELIHOOD | 1                | 2 | 3 | 4 |
| 1          |                  |   |   |   |
| 2          |                  |   |   |   |
| 3          |                  |   |   |   |
| 4          |                  |   |   |   |

VERY HIGH
HIGH
MEDIUM
WEAK

Incident or as a result of an event which is likely to be classified as a highregarded to the most serious (high risk). While an incident with a lower value which can only lead to serious injury is not regarded as low (low risk).

Results in taking any control measures must be based on the valuation of risk have been defined. Priority should be given to the conditions recorded a high value. The table below shows the action steps according to specific stages:

Table 3.3.3: Action Plan.

| RISK LEVEL | DESCRIPTION | ACTION PLAN                            |
|------------|-------------|--|
| 1 – 3      | WEAK        | - Monitoring, advice, provide          |
|            |             | guidelines from time to time.          |
| 4-6        | MEDIUM      | - should be controlled as soon as      |
|            |             | possible after completion of the first |
|            |             | critical issue. Formal warnings apply  |
|            |             | when corrective action plan            |
|            |             | submitted was not implemented.         |
| 8 – 9      | HIGH        | - critical issues and need the most    |
|            |             | immediate action to control it.        |
|            |             | Formal warning should be continued     |
|            |             | if the corrective action plan is       |
|            |             | carried out.                           |
| 12 – 16    | VERY HIGH   | - Critical issues and that need to be  |
|            |             | enforced lockout until the risk really |
|            |             | on the situation permits.              |

Examples of risk assessment can be taken from the safety hazards are hazards when working in high places. While for health hazards is the noise exposure to workers. Tables are available showing the risk assessment, using the quantitative.

Table 3.3.4: Risk Assessment Schedule.

| No. | HAZARD  | SEVERITY<br>(A) | LIKELIHOOD<br>(B) | RISK<br>C = A x B |
|-----|---|-----------------|-------------------|-------------------|
| 1   | SAFETY - Working at high level                            | 4               | 3                 | 12                |
| 2   | HEALTH - Noise exposure to workers who handling machines. | 3               | 3                 | 9                 |

|    | Table 3.3.5 : Examples of risk assessment.                    |   |  |  |
|----|---|---|--|--|
| NO | HAZARD  | RISK ASSESSMENT   |  |  |
| 1) | SAFETY - Concreting work at high.                             | Accidents can happen in the area if the security measures are not taken and not exercised properly. Among them is if employees are not wearing personal protective equipment (PPE) such as safety harnesses should not use the equipment in accordance with the proper procedures as not binding properly and does not provide the life line for the safety of employees working in high places.  i) the employee is engaged: 4 people ii) the period of work: 8 hours iii) the value of severity: 4 (death) iv) possible values: 4 (very high) vi) risk analysis: 4 x 4 = 16 (very high) |  |  |
| 2) | HEALTH  - Noise exposure to workers who handling machineries. | Exposure to this situation usually happens to workers who operate machines available on site like concrete pump machine.  i) the employee is engaged: 2 people ii) exposure period: 8 hours iii) the value of severity: 3 (high) iv) possible values: 3 (high) vi) risk analysis: 3 x 3 = 12 (high)   |  |  |

As a result of the risk assessment based on the above table that shows the risk is at a very high level. This requires immediate action and monitoring in controlling the hazards.

# 3.3.3 Risk Control

In construction work, accidents in the workplace can be avoided by reducing and controlling hazards, hazards that exist in the area. These things need to be implemented by the employer in managing health and safety risks to workers through the methods as follows:

- i) Eliminate the hazards.
- ii) Replace the hazards.
- iii) Isolating the hazards.
- iv) Prepare / provide engineering controls.
- v) Prepare / provide administrative control.
- vi) The use of personal protective equipment.

Risk control is very important to these two types of hazards:

- i) Safety Hazard
- Examples of possible hazards is like making concrete work in high places, the possibility of concrete or an employee falls, falling objects or concrete bins, concrete paths leaking pipes or the like.
- Methods that can be taken to control these risks through three methods, which are engineering, administrative control method and the method of application of personal protective equipment.

## a) Engineering control

### 1) Installation of external scaffold.

Installation of external scaffold and safety net outside of the building is one of the engineering methods. This installation must be done in accordance with the progress of the concrete work being carried out. Average external scaffold this installation must be verified and approved by the engineer. Installation of external scaffold should exceed the level or place concrete work to be performed.



Photo 3.3.3: External Scaffold.

## 2) Assembly platform for concrete work posts.

### - Installation of a platform to work on concrete columns:

Installation platform is needed for employees who perform concrete work and should be carried out in order to prevent workers from falling involved in the course of the work. Platform is installed needs to be ensured is in a strong and powerful. Platforms that have built also need to have a preventive.



Photo 3.3.4: Safety Net and Platform.

### b) Method of administrative control.

Various methods of administrative control that can be used, such as:

- Method of employee lawsuits against employers who do not follow the rules, Major employers have the power to summon any employee found guilty / not in accordance with the rules laid down while working at height. The suit will be submitted to the employer and to the employee involved. If the same employee to repeat the same mistake three times in accordance with the rules set, the main employer is entitled to evict the workers were from further work on the project.

### i. Provide Signage

- This method aims to commemorate the workers to keep cautious about a hazard and risk inherent in a particular area. Signage should have built-up area is like, wearing safety harnesses, safety helmets, the danger symbol and so on. This is to avoid the occurrence of injuries to workers from falling items or others.



Photo 3.3.5: Safety Helmet Signage.



Photo 3.3.6: First Aid Signage.



Photo 3.3.7: Site Safety Signage.



Photo 3.3.8: Safety harness signage.



Photo 3.3.9: Warning Signage.

# ii. Monitoring work by the employer

The main employer and the employer must monitor every work done by each of their employees. Each supervisor should monitor the level or action involving worker safety before, during, and after taking a job.

## iii. Provide safety induction

Major employers must ensure and require that all employees working on the construction site safety induction. Induction is to describe the method that should be taken during the work especially when working in high places.



Photo 3.4: Safety Induction.

## iv. Conduct toolbox talk

Toolbox talk will be held on a weekly basis. In the tool box briefing session will be held on the types of hazards found on construction sites. Also related are methods of control must be taken by each employee involved.



Photo 3.4.1: Toolbox Talk.

### v. Provisions of the law in the workplace.

Employer has developed a special provision for all employees. Provision relates to the amount specified suit against employees who violate the rules at work. Normally, this allocation will be distributed at the meeting, through reports and posters. Employers also provide law that prohibited employees to work when it rains.

#### c) Wearing of personal protective equipment.

- Requirement for the use of protective equipment shall be prominently posted in the area. The application of personal equipment appropriate in the circumstances and work like wearing safety harness and safety helmet. Additional protective equipment shall be provided and used as and when necessary to meet the requirement of the specific work (example: hearing protection, and specialized eye protection.)

#### ii) Health Hazard

- health hazards are hazards in work activities likes a concrete works. Hazard happened is that noise exposure to employees follow-on from the concrete pump machine.
- There are several methods that can be taken to control these risks, which include:

#### a) The method of isolation.

The method of isolation is to isolate the machine to a different location where it is not located at the focal point of workers. This isolation is necessary, so that the noise resulting from the concrete machine does not interfere with others. This separation should be done because unnecessary noise will affect employees by the psychology such as emotional stress.

### b) Administrative methods of control

Administrative method is a method that is particularly exercised by the employer. This method requires the employer to do regular health monitoring. This monitoring can be done once every two years to the employees involved. Employers can also provide specific programs for the employees. The program should be implemented for this method is a safety induction. In this program, employers can more easily explain about the health hazard to employees. Put signage in a dangerous place also is a responsibility that must be implemented by the employer. In addition, the employer must make a special toolbox talk to employees. In the toolbox talk, workers are exposed to a variety of health-related explanation. With the availability of this program, employees will be able to practice a little bit of knowledge in the workplace.

## c) Application of Personnel Protective Equipment

These hazards are exposed to all employees who handle tasks that control there, particularly concrete works. Such workers should wear earplugs along doing concrete work.



Photo 3.4.2: Earplugs.

#### **CHAPTER 4**

#### CONCLUSION

Based on studies that have been carried out, as a whole, it can be concluded that the safety and health at construction sites is very important. It is not only important for individual employees but for all. Accidents can happen anywhere, the saying goes 'unlucky indeed not bad'. Therefore, we should avoid the accident.

To overcome this problem, all parties must play a key role in addressing this problem if an employer, employee or contractor. Arrangements are involved need to take this issue seriously in order to not happen again in the future.

As the responsible party, they should provide perosedur and understandable path for their employees. They can also take action to employees who refuse to follow the rules that have been set. If an accident involving their employees, they will be a lawsuit. Furthermore when an accident involving death, they will suffer losses because of the need to take new labor, and the need to produce a lot of capital.

Therefore, the sub-contractor shall act promptly to address this problem by ensuring that all employees follow the rules that have been prepared by the main contractor. Besides being able to avoid and prevent these accidents from occurring, it also is good for all parties. Should the parties involved must work together and are responsible to comply with the rules set so that this problem can be overcome and provide quality work.

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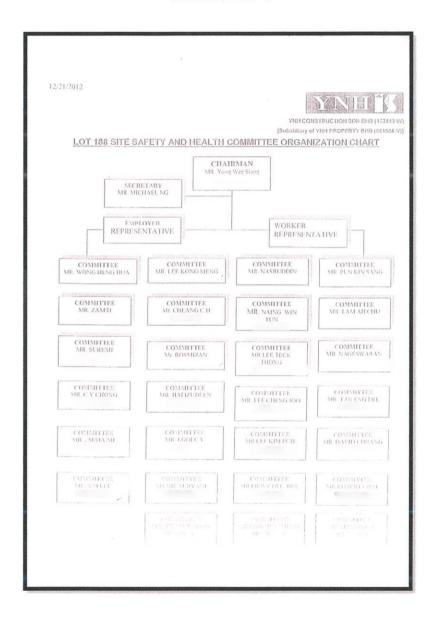
# APPENDIX A

| EM                             | Non-compliance and                        | PAL (Penalty Actio | Penalty Amount )     |                          |  |  |  |  |
|--------------------------------|---|--------------------|----------------------|--------------------------|--|--|--|--|
|                                | Violation Description                     | PAL-1              | PAL-2                | PAL-3                    |  |  |  |  |
| OCCUPATIONAL SAFETY AND HEALTH |   |                    |                      |                          |  |  |  |  |
| )                              | a) Not wearing / using appropriate        | RM 50 (Workers)    | RM 100 ( Workers)    | RM 200 (Workers)         |  |  |  |  |
|                                | P.P.E such as Safety Helmet, Safety Shoes |                    |                      | Plus dismissal from site |  |  |  |  |
|                                | and Safety Belt or Safety Hardness.       | RM 100 (Staff)     | RM 200 (Staff)       | RM 200 (Staff)           |  |  |  |  |
|                                | b) Dismantling or intercept any provided  | RM 100 (Workers)   | RM 200 (Workers)     | RM 300 (Workers)         |  |  |  |  |
|                                | safety precaution, materials. Tools,      |                    | Plus 3 days OFF SITE | Plus dismissal from site |  |  |  |  |
|                                | equipment or devices                      | RM 100 (Staff)     | RM 200 (Staff)       | RM 300 (Staff)           |  |  |  |  |
|                                | c) Working with defective tools or        | RM 100 (Workers)   | RM 100 (Workers)     | RM 100 (Workers)         |  |  |  |  |
|                                | equipment                                 |                    | Plus 3 days OFF SITE | Plus dismissal from site |  |  |  |  |
|                                |   | RM 100 (Staff)     | RM 100 (Staff)       | RM 100 (Staff)           |  |  |  |  |
|                                | d) Not obeying safety and                 | RM 100 (Workers)   | RM 100 (Workers)     | RM 100 (Workers)         |  |  |  |  |
|                                | health signage / noticed                  |                    |                      |                          |  |  |  |  |
|                                |   | RM 100 (Staff)     | RM 100 (Staff)       | RM 200 (Staff)           |  |  |  |  |
|                                | e) Disobey or not complying with          | RM 200 (Workers)   | RM 200 (Workers)     | RM 200 (Workers)         |  |  |  |  |
|                                | instruction by superior or supervisor or  |                    | Plus 3 days OFF SITE | Plus dismissal from site |  |  |  |  |
|                                | person in charge pertaining to safety     |                    |                      |                          |  |  |  |  |
|                                | and health matter.                        | RM 200 (Staff)     | RM 200 (Staff)       | RM 100 (Staff)           |  |  |  |  |
|                                | f) Urinating / pass motion at             | RM 100 (Workers)   | RM 100 (Workers)     | RM 100 (Workers)         |  |  |  |  |
|                                | any places other than                     |                    | Plus 3 days OFF SITE | Plus dismissal from site |  |  |  |  |
|                                | toilets                                   | RM 100 (Staff)     | RM 100 (Staff)       | RM 100 (Staff)           |  |  |  |  |
|                                | g) Littering within project site and      | RM 50 (Workers)    | RM 50 (Workers)      | RM 50 (Workers)          |  |  |  |  |
|                                | compound                                  |                    |                      |                          |  |  |  |  |
|                                |   | RM 100 (Staff)     | RM 100 (Staff)       | RM 100 (Staff)           |  |  |  |  |

# APPENDIX B



#### APPENDIX C



## APPENDIX D

|   |   |                       | 5/7/                       |                          |  |  |  |  |  |
|---|---|-----------------------|----------------------------|--------------------------|--|--|--|--|--|
|   |   | YNH                   |                            |                          |  |  |  |  |  |
|   | YNH CONSTRUCTION SDN BHD (173443- W) (Subsidiary of YNH PROPERTY BHD (\$51936)) |                       |                            |                          |  |  |  |  |  |
|   |   |                       |                            |                          |  |  |  |  |  |
| ACCIDENT INVESTIGATION REPORT (VICTIM)                              |   |                       |                            |                          |  |  |  |  |  |
| PROJECT: LOT 185  |   |                       |                            |                          |  |  |  |  |  |
| COMPANY   | Yell  | ConsTRUCTION S/B      | CASE NUMBER                | N:01                     |  |  |  |  |  |
| NAME OF VICTIM  | 1111  | HAMINIO (B13240 78)   | DATE OF REPORT             | SJLJeil                  |  |  |  |  |  |
| DESIGNATION   | DESIGNATION CONCRETER   |                       | DATE & TIME OF<br>ACCIDENT | 45.11                    |  |  |  |  |  |
| AGE   |   |                       | LOCATION OF ACCIDE         | HT LG                    |  |  |  |  |  |
|   | EMPLOY  | MENT                  | DURATI                     | ON OF EMPLOYMENT         |  |  |  |  |  |
| REGULAR (FI   | ill Time)   | TEMPORARY             | LESS THAN 1 Y              | YEAR 4-7 YEARS           |  |  |  |  |  |
|   | ,,,,,   |                       |                            | 777680                   |  |  |  |  |  |
| REGULAR (Part Time) NON EMPLOYEE                                    |   |                       | 1 To 3 Years               | More than 8 years        |  |  |  |  |  |
| NATURE OF INJURY AND PART OF BODY INJURED                           |   |                       |                            |                          |  |  |  |  |  |
| Time of Accident: 89-15am + 30 pm Time within Shift: Type of Shift: |   |                       |                            |                          |  |  |  |  |  |
| SEVERITY OF INJURY  |   |                       |                            |                          |  |  |  |  |  |
|   |   |                       |                            |                          |  |  |  |  |  |
| FATALITY  | FATALITY Restricted Workday Case Flirst Alid( Return to Work)                   |                       |                            |                          |  |  |  |  |  |
| Lost Work Da  | Lost Work Days Medical  |                       |                            | OTHERS, specify          |  |  |  |  |  |
| Name and Address of   | of Treating   | Physician             |                            |                          |  |  |  |  |  |
| General Hospital, K.  | L   |                       |                            |                          |  |  |  |  |  |
| Name and Address of Hospital (If applicable)                        |   |                       |                            |                          |  |  |  |  |  |
| General Hospital, K.L.  |   |                       |                            |                          |  |  |  |  |  |
| Phase of Workday at   | t Time of A   | ccident               |                            |                          |  |  |  |  |  |
| Performing W  | Performing Work Working Overt   |                       |                            | During rest / meal hours |  |  |  |  |  |
| Entering / Leaving Worksite Other, specific                         |   | ,                     |                            |                          |  |  |  |  |  |
| TASK AND ACTIVITY   | Y AT THE O  | E ACCIDENT            |                            |                          |  |  |  |  |  |
| General type of task  |   | Cuzarefe              |                            |                          |  |  |  |  |  |
| Specific Activity:  |   |                       |                            |                          |  |  |  |  |  |
| Specific Activity.  |   | Custing cal           |                            |                          |  |  |  |  |  |
| Employee was working : Alone With fellow worker Other               |   |                       |                            |                          |  |  |  |  |  |
| SUPERVISION AT TIME OF ACCIDENT                                     |   |                       |                            |                          |  |  |  |  |  |
|   |   |                       |                            |                          |  |  |  |  |  |
| Directly Superv   | rised   | Indirectly Supervised | Not Supervised             | Supervision not feasible |  |  |  |  |  |
|   |   |                       |                            |                          |  |  |  |  |  |