Safety First

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بسم الله الرحمن الرحيم

ولا تلقوابايديكم الى التهلكة

((مَنْ قَتَلَ نَفْسًا بِغَيْرِ نَفْسٍ أَوْ فَسَادٍ فِي الْأَرْضِ فَكَأَنَّمَا قَتَلَ النَّاسَ جَمِيعًا وَمَنْ أَحْيَاهَا فَكَأَنَّمَا أَحْيَا النَّاسَ جَمِيعًا))

CONTENTS

1. INTRODUCTION

A safe and healthy workplace not only protects workers from injury and illness, it can also lower injury/illness costs, reduce absenteeism and turnover, increase productivity and quality, and raise employee morale. In other words, safety is good for business.

This report provides a summary review of the current state of research findings concerning the relationship between work health and safety (WHS), business productivity and sustainable business performance. In particular, the aim is to assess the extent to which the available research evidence supports a business case for Australian organizations to make investments in better WHS systems and practices.

It is often argued management commitment to investing in better WHS systems requires a 'business case' to be made. The concept of the business case, however, is often confused with a related question of making an economic justification for government intervention or investment in better WHS. This more general economic justification considers the full economic costs and benefits of a policy intervention or investment, irrespective of how benefits or costs are distributed across business, the workers involved and the community at large. More simply put, the economic case is concerned with determining the extent to which WHS is a public good. The business case seeks to establish whether investment in better WHS can provide a net economic benefit to business, irrespective of whether such investments might also be able to generate net benefits that directly accrue to individual workers or the public at large.

why workplace safety should be our priority including?:-

1. **Injury**
2. **Death.**

These two reasons should need no explanation. There were 4,679 workers killed on the job in 2014 according to OSHA. There were almost 3 million recorded injuries during that same period. Improved safety training and awareness can help save lives and reduce injury.

Along with the above-mentioned pain, suffering and death, there is the financial impact.

3. **Corporate financial loss**
4. **Property damage**

In order for a company to survive and employ people, it must be profitable. Death & injury impact the company financially. It is in the best interest for both employee and employer to put safety first, minimize risk to life and therefore reduce financial loss and property damage.

Why do we work safe? When a company puts their employees first and implements proper safety training and education and then enforces it, several positive results happen.

5. **Worker productivity increases**
6. **the Service or Quality of the product improves**
7. **Corporate reputation / public relations improves**

Workplace safety is important. You know this.

You know that implementing an effective occupational health and safety program for your workplace is one of the best decisions a company can make — both for its workers and for its bottom line.

Types of safety:

has identified five different types of hazards that affect most workplaces. These are hazards that can be found in nearly every type of facility and should be addressed to keep workers from injury or health problems.

1. **Safety hazards:** Safety hazards are the most common type of hazard and they are present in virtually every workplace at one time or another. These hazards are unsafe conditions in a facility that can cause injury, illness, or even death. Think of hazards like spills, working from heights, unguarded machinery, wiring issues, confined spaces, forklifts, and more.
2. **Biological hazards:** Biological hazards affect those who work with animals, people, or infectious plant materials. People who are working at daycare centers, colleges, hospitals, nursing homes, etc. can be exposed to blood or other body fluids, fungi and mold, bacteria, viruses, and more.
3. **Physical hazards:** Physical factors encompass environmental factors that can cause harm to workers even when they're not directly touched. Radiation, high sunlight exposure, working in extreme temperatures, and constant loud noises are all examples of physical hazards.
4. **Ergonomic hazards:** These hazards can be the hardest to identify, but they can easily cause strain (and eventually injury) to the body. Workers can face ergonomic hazards if their workstations or chairs are improperly adjusted, if they're frequently lifting, if they're making repetitive and awkward movements, and other situations where the body and muscles are overworked.
5. **Chemical hazards:** Any chemicals in the workplace can put workers at risk. Some chemicals are far more dangerous than others, but even common chemicals can cause skin irritation, illness, or respiration problems.

<u>Safety hazards</u>: one of the most important type of safety so we choose for my reaserch:

Desk stretches

When we remain on desk or place for a long time we must do :-

These are stretches to do at your desk.

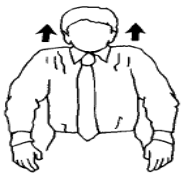
This program will take 21/2 – 3 min.

- Breathe easily
- No bouncing or forcing
- No pain!
- *Feel* the stretch
- Relax
- See Stretching Instructions, pp. 77–84

1
5 sec, 3 times
p. 82

2
5 sec, 3 times
p. 82

3
5 sec, 2 times
p. 81



4
5 sec, 2 times
p. 84

5
5 sec
p. 84

6
5 sec
each side
p. 84

7
5 sec
p. 84

8
10 sec
each arm
p. 81

9
10 sec
p. 82

10
10 sec
p. 81

11
9 sec
each side
p. 82

12
10 sec
p. 79

SAFETY SIGNS

Must do some thing:-

Round blue signs withwhite pictures tell you that you MUST do something.

1

Respirator (gas mask) must be worn

2

Protective footwear must be worn

3

Hard hats must be worn

4

Protective gloves must be worn

5

Ear defenders must be worn

6

Protective goggles must be worn

- Can not do some thing

Round white signs edgedwith red and with a red
line through a black picturetell you that you CANNOTdo something.

7

No smoking in this area

8

Do not drink from this tap

9

People are not allowed in this area

10

Do not put out with water

- Warn you about some thing:

Triangular shaped yellow signs that have
a black edge and picture WARN you about something.

Caution - risk of fire

Caution - industrial trucks

Caution - toxic hazard

Caution - corrosive substance (e.g. acid)

Caution - overhead load

- ices

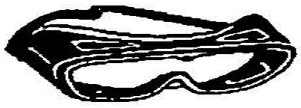
MEDICAL AND FIRST AID REQUERMENT

- First aid box Medical facilities and personnel expected to treat injured employees shall be informed of the nature of the work .
- Training(material, equipment, activity)

EYE AND FACE PROTECTOR SELECTION GUIDE:

A. Spectacle, No sideshield

E. Spectacle, Non-Removable Lens



I. Cover Goggle, Direct Ventilatior

B. Spectacle, Half Sideshield

F. Spectacle, Lift Front

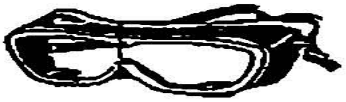
J. Cup Goggle, Direct Ventilation

C. Spectacle, Full Sideshield

G. Cover Goggle, No Ventilation

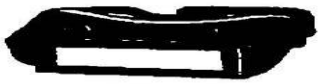
K. Cup Goggle, Indirect Ventilatior

D. Spectacle, Detachable Sideshield

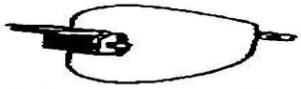


H. Cover Goggle, Indirect Ventilation

L. Spectacle, Headband Temple

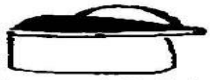


M. Cover Welding Goggle, Indirect Ventilation



Q. Welding Helmet, Lift Front

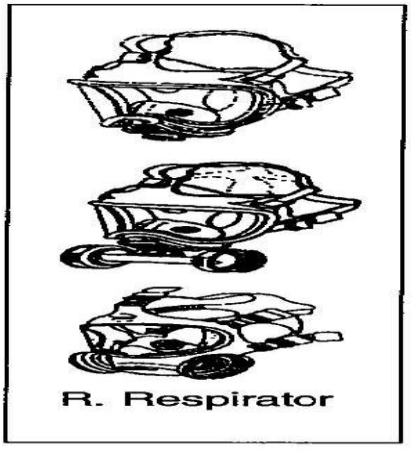
S. Respirator



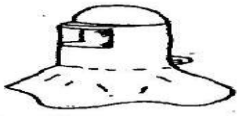
N. Faceshield

O. Welding Helmet, hand Hold

P. Welding Helmet, Stationary Window

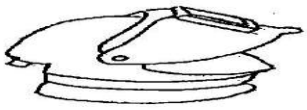


R. Respirator



T1. Respirator

T2. Respirator



U. Respirator

PROTECTIVE FOOTWEAR:

Footwear providing protection against impact and compressive forces, conduction hazards, electrical hazards.

- **Ear Protection**
- When sound-pressure levels exceed 115 dB steady state.,personal ear protection..

10 Important step for safe project:

10-1.PUTTING WARNING SIGNS :-

When putting up safety signs its important to see the process as more than just bureaucratic requirement ,yhe signs are here to convey practical requirement and there for need to be placed in away that's going to communicate that information most effectively.

10-2.Safety net systems:

The maximum size of the mesh openings shall not exceed 230 cm2 not more than (15*15) cm The border rope or webbing shall have a minimum braking strength of 2700 kg
safety net installation shall be tested in suspended position
Shackles and hooks used in safety net installation shall be made of forged steel.

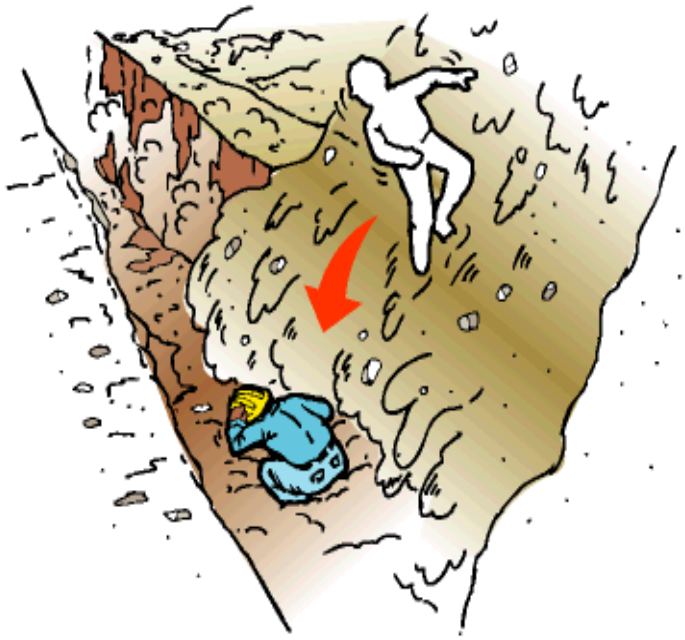
10-3.EXCAVATION AND TRENCHES:-

- An excavation shall not be opened unless there is material on hand and ready to complete that work item .

- Protective systems (the sides of all excavations in which employees are exposed to danger from moving around shall be guarded by a support systems .

- Plan for traffic control

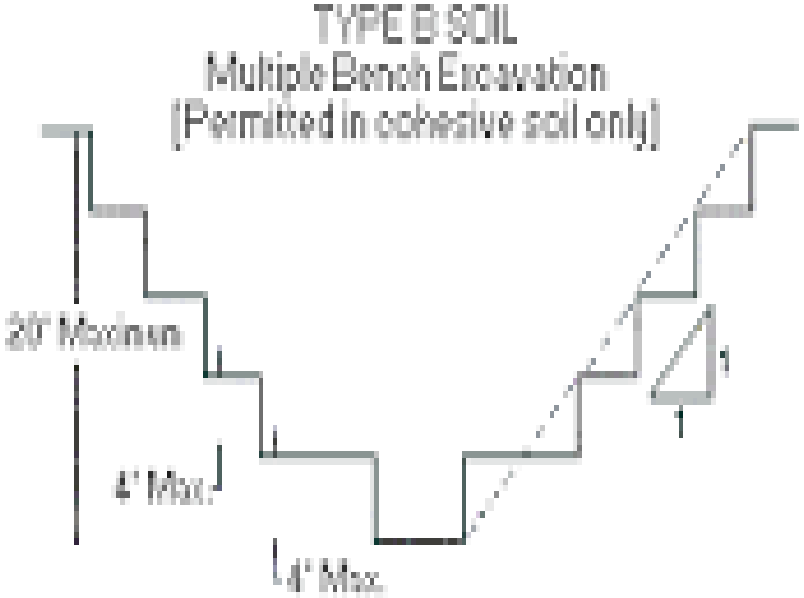
- Protection excavation from water.
- Protection excavation from falling materials…



- Walk ways or bridge shall be provided with standard guard rail
- Where personnel are required to enter excavations over 1.2 m sufficient stairs, rumps or ladder shall be provided

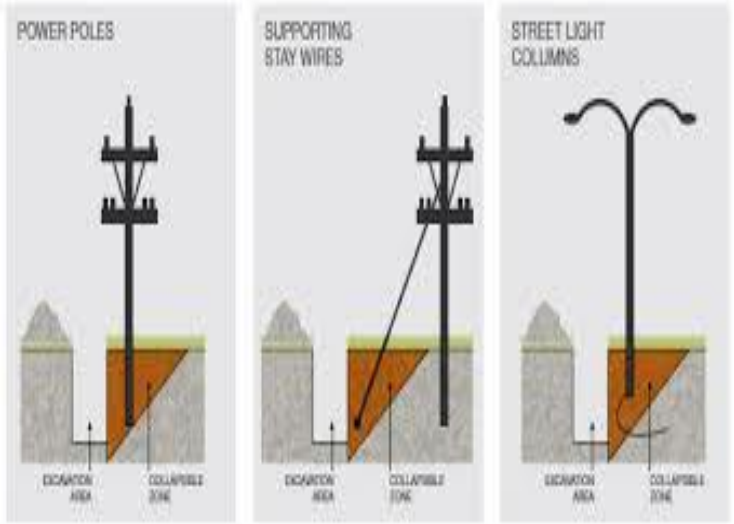
10-4. Sloping and benching

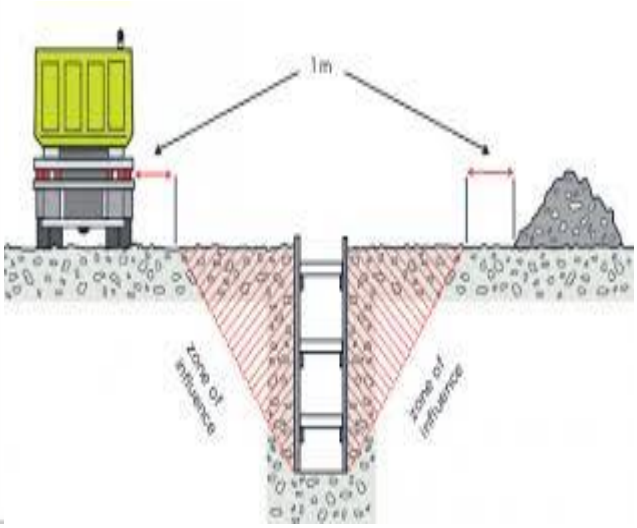
Sloping and benching in order to safety slop ,treches must be excavated so that for every one foot of depth the trench isone foot for each side.

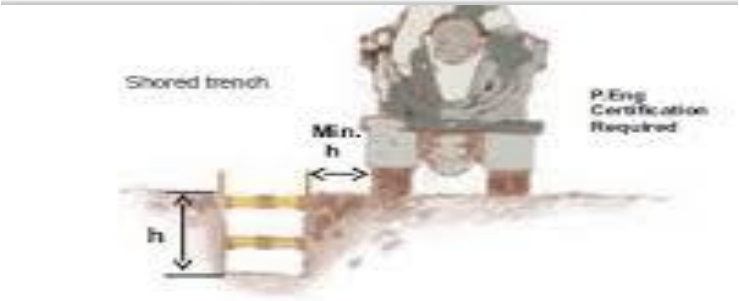


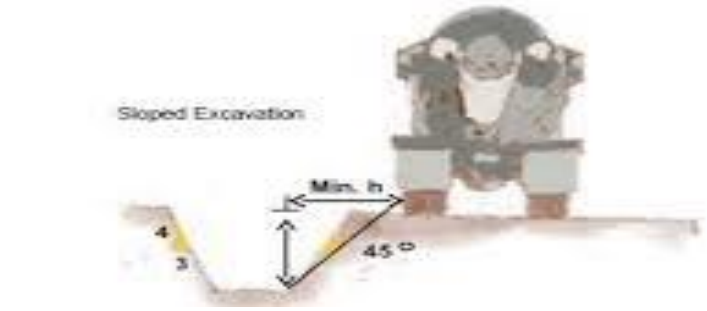
10-5.

- **Electrical pole**:the excavation should be far from pole more than deep of excavation.
- **Space for truck**: distance between truck and the excavation should be more than the depth of excavation.

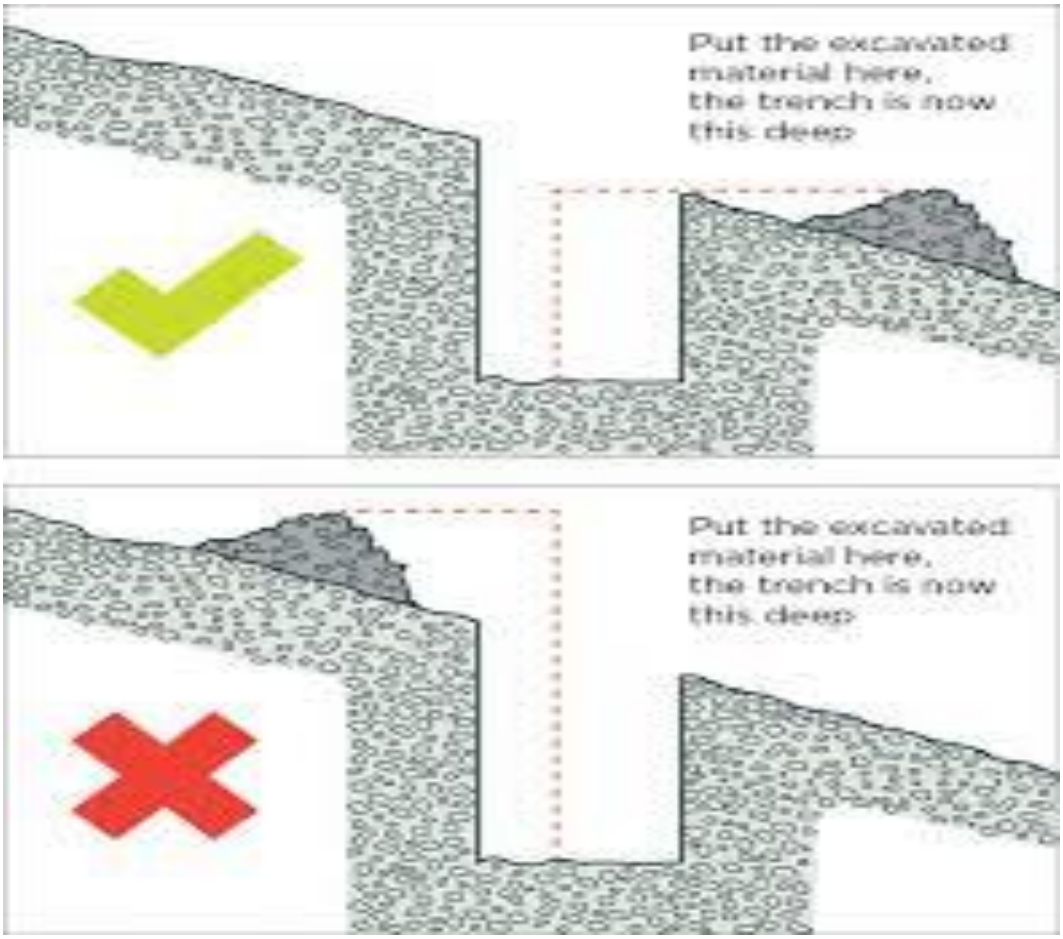








- Put the excavated material in lowest side
- Put the excavated material in minimum 60cm far away ..



10-6.-Formwork and concrete work

- Form work shall be designed
- Base support (shall be capable of carry out) load

- Diagonal bracing shall be provided in a vertical and horizontal planes to provide stiffness.
- Inspection :shoring equipment shall be inspected prier..

10-7.-CONCRETE WORK

- Construction loads shall not be placed on a structure or portion of a structure until check perfectly .
- No employee shall be permitted to work under concrete buckets, bundled material loads, or other suspended loads.
- Each employee engaged in masonry or concrete activities who is on a walking/working surface with an unprotected side or edge more than 6 ft (1.8 m) above a lower levels hall be protected from fall hazards by guardrail systems, safety net…

10-8.-Ventilation

- Fresh air shall be supplied to all under ground work area in suffusion quality
- Mechanical ventilation shall be provided for all ground work area in suffusion quality
- The supply of fresh air shall not be less than 94.4 L/S for each employee under ground pulse that the necessary to equipment
- The direction of mechanical air flow shall be reversible.
- Following blasting ventilation systems shall exhausted smoke and fumes to the out side atmosphere before work resumed

10-9.-Electrical

- Training.
- a. Members of drilling crews shall be trained in:
- (1) The operation, inspection, and maintenance of the equipment.
- (2) The safety features and procedures to be used during operation, inspection, and maintenance of the equipment.
- (3) Overhead electrical line and underground hazards.