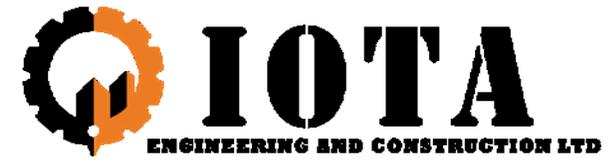


IOTA ENGINEERING AND CONSTRUCTION LTD



Creating a Culture of Safety & Promoting Hazard Reporting in the Construction Sector in Kenya

CONSTRUCTION SAFETY EQUIPMENT AND LIABILITY

Continuous Professional Development 2nd February 2024

NOTICE
Mandatory PPE
on site

DANGEROUS
CONSTRUCTION SITE
DO NOT ENTER

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Brief History of Construction Health and Safety – Our case study

- ❖ Evolution of construction HS started since the 19th century upon which fatalities during the works were a norm.
- ❖ A case in scenario was in the Woodhead channel construction where the casualties were record high attracting the attention of the UK government to form a commission of enquiry.
- ❖ Facts
 - Construction length was 9 miles (3 lines, 3 miles long each).
 - Number of fatalities 32 on site, 28 due to cholera associated to the living conditions.
 - 140 worker were also injured at work.
- ❖ As a result, the UK government made laws that led to reforms in the construction companies to promote Health, welfare and accommodation of the labour force.
- ❖ Since then Construction has witnessed transformation with safety considered among the deliverables

Facts

- in 2016, the UK government records shows fatalities of less than 2 workers per 100,000 workers.



Construction Health and Safety law in Kenya

- Occupational Health and Safety Act 2007
- National Construction Authority Code of Conduct
- Construction Law
- Bowec 1986 regulations (Building operations and works of engineering construction)

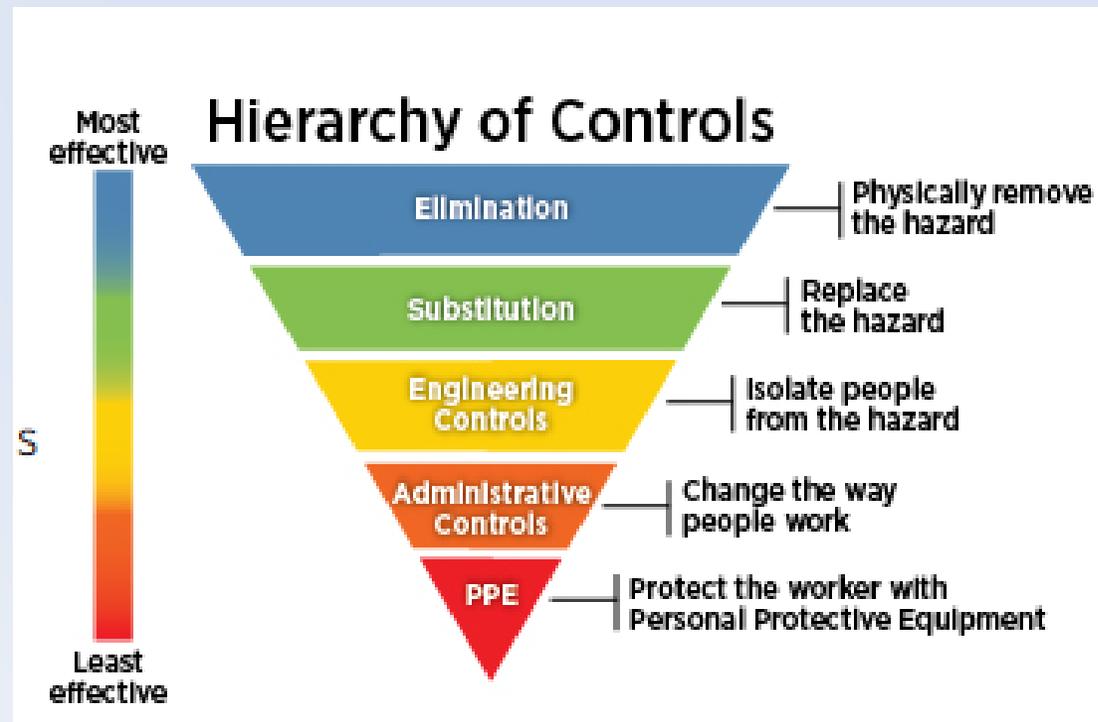


Hierarchy of Control

The prevention and control of hazards protects the workforce and promote safe working conditions.

An effective hazard prevention and control plan should be consultive for a wholesome solution.

Upon risk identification, the outline hierarchy of controls is established,



PPE Usage in Construction

As the last resort in the hierarchy of controls, Personal Protective Equipment reduce exposure to risks.

The common PPEs and their usage include

1. Head Protection – Helmet with chin strap
2. Eye Protection – Goggles, face visor, welding screen
3. Ear Protection – Ear Defenders/Plugs/Muffs
4. Hands protection – Gloves, gauntlets,
5. Foot protection – Safety boots
6. Body Protection – Overalls and Reflector vests
7. Fall Protection – Safety Harness
8. Respiratory Protection – Dust masks, respirators etc



PPE standards

The recommended EN /BS /KS standards for the Personal Protective Equipment guarantees safety and overall tear and wear of the equipment.

The standard for the common PPE is as follows



Type of PPE	STANDARD
Helmet	EN 397
Safety glasses	EN 166,ANSI Z87;1
Earmuffs	EN 352
Nitrile gloves/rubber	EN 374
Cut resistant gloves	EN 388
Welding gloves	BS EN 388,BS EN 407
Safety shoes	EN ISO 20345
Reflective vests	EN 471
Dust mask	EN 149
Gas respirator	EN 145

Sample PPE Compliant site



Safety Signages

Usage of Safety Signage

1. Warning – Caution
2. Mandatory requirement outline
3. Safety Information
4. Prohibitory

Depending on the standard used, specific colours are used to define the above signage.

Warning Signage – Yellow in colour



Mandatory Signage - blue



Safety Information- Green



Prohibitory Signs - Red



Liability in Construction HSE

The implementation of the HSE systems takes centre in the safe delivery of the works.

The planning and the contractual provisions guide on the welfare and health and safety mechanism and involves several participants including the workforce.

- Contractual Provisions

Part of the construction budget entails the provision of the welfare and HSE to the labour force. Minimum guidelines described in the occupational Health and Safety act form basis.

Contractor Obligations – OSHA Act 2007

- Compliance with Dosh – Registration of Workplace
- Welfare facilities-Change rooms, mess rooms, rest rooms, water points, first aid facilities etc
- Personal Protective Equipment (PPE's) – Helmets, Safety boots, reflector vests, ear plugs/muffs, other specialised PPE as required
- Work training – Competence of the personnel for the specified tasks to meet the regulation
- Site Signage and Organisation – Adequate information and signage to guide/warn of the impending risks
- On job site training and safety induction – Tool box training and refresher by approved HSE personnel daily and specified works
- Employee Supervision and Management – Adequate supervision and management of the employee working hours, and implementing of the HSE plan
- Tools and Equipment Inspection – Select safe and good condition tools for the job

Workforce Requirements

1. Comply with the safety procedures for the works
2. Safeguarding of the Personal Protective Equipment
3. Reporting of Hazards and Unsafe acts to supervisor
4. Ensure signage and Lock Out Tag Out are visibly displayed
5. Attend to all the provided training and induction for the works
6. Maintaining sobriety while at work and taking allowed rest breaks/days to relax
7. Proper usage of tools and Equipment

Construction risks and liability

The contractor is liable to any injuries to his workers and third parties as well as damage to property and equipment during the execution of the works.

Risks in the construction can not be totally eliminated thus necessitating for risk transfer and/or sharing with third party such as insurance companies through the following forms;

- Work Injury Benefits Act (WIBA)
- Third Party Liability
- Insurance of the works
- Insurance for equipment

A 3D rendered white envelope is shown from a slightly elevated perspective, with its top flap folded down. A white card is partially inserted into the envelope, and the words "THANK YOU!" are printed on it in a bold, red, sans-serif font. The card is slightly offset to the right, showing the top and right edges of the envelope. The entire scene is set against a light blue gradient background.

**THANK
YOU!**