HEALTH AND SAFETY IN CONSTRUCTION

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What is the OSH situation in the Construction Sector in the Caribbean?

- One of the sectors with the highest fatal accident rates.
- Any expansion in the construction sector is usually associated with an increase in accidents and fatalities.
- Do we have any figures for the sector in the Caribbean?
Do we know the real number of workers injured or killed in the Construction Sector each year?

- The answer is **NO**. Many accidents never get reported.

- Injured workers leave the site, often with little redress and new workers are hired.

- Occupational diseases are rarely recognized or diagnosed.
Typical Analysis of Occupational Accidents in Construction

- Typically, temporary workers may account for 15-20% of all workers but are involved in almost double the number of workplace accidents in this sector.

- 70% or more of occupational accidents are caused by high falls, electric shocks, falling materials.

- Typically, these accidents often occur late in the morning and afternoon as well as during extra working hours.

- Do we have any such information in the Caribbean?
Shortcomings of OSH Performance in Small Construction Enterprises

- lack of regular supervision over OSH performance at the workplace; most small enterprises are in breach of safety regulations in construction;

- absence of training courses for workers;

- overtime and over-shift work is one of the causes of occupational accidents; and

- regulations on recording, investigating and reporting occupational accidents are not observed adequately; measures for workplace accident prevention are unavailable.

These are common shortcomings.
There are a number of contributing factors to the high accident rates:

- large number of small construction firms and self-employed workers;
- high numbers of untrained, unskilled workers from the countryside (seasonal and migrant) who are unfamiliar with construction processes;
- variety and short lifespan of construction sites;
- high turnover of workers; and
- extreme weather conditions.
What are some of the main causes of accidents and fatalities on construction sites?

- falling from heights;
- work collapse; and
- earth collapse.

LET’S LOOK AT A FEW EXAMPLES.
SCAFFOLDING FOUR STORIES UP.......

AND WORKERS UP FOUR STORIES

NOTICE THE NUMBER OF WORKERS AND ALSO THEIR FOOTWEAR.....

.........AND THE DROP
NOTICE THE LACK OF BOARDS, THE FOOTWEAR AND THE HAMMER ON THE EDGE.

INADEQUATE BOARDING

SLIPS AND FALLS ARE EASY — NOT ONLY INJURING THE WORKER BUT ALSO THOSE BELOW
So, if you work at heights, what can be done?

- Here are a few examples.
- See if you recognize the OSH problem and a solution that would prevent an accident and injury.
Working at Heights

1. Secure ladders.
2. Use secured scaffold.
3. Provide safety harnesses and safety nets while working at heights.
Safety harnesses and not safety belts are the safer, more contemporary equipment being used for body support in the ABC of Fall Protection and Working at Heights, i.e. ABC = anchorage, bodysupport, and connecting device (lanyards).

COSHE should in any future training/presentation on Working at Heights or Fall Protection encourage/promote the use of harnesses with lanyards secured to suitable anchor points. Safety Belts are obsolete and furthermore do not provide the kind of protection that safety harnesses do.

Therefore I have omitted the photos showing the use of safety belts, and have changed the wording 'safety belts' to 'safety harnesses' throughout the presentation.

Michael, 30/10/2011
Ladder secured at its upper end, extending above the landing place.
Ladder secured at its foot to stop movement
ALL LADDERS SECURELY FIXED TO SCAFFOLDING

AGAIN NOTE THE SECURE FIXING OF THE LADDER

REMEMBER IF METAL CLIPS ARE NOT AVAILABLE, STRONG ROPE CAN ALWAYS BE USED.
1. Secure the scaffold to the building in enough places to prevent scaffold collapse.

2. Mount all the uprights of the scaffold on proper base plates.

3. Evenly distribute materials over scaffolds to avoid overloading.
A single pole or scaffold, with a single outer row of uprights or standards and which is partly supported by the building.
EXCELLENT SCAFFOLDING SECURED TO THE BUILDING
Safe Use of Scaffold

1. Secure the scaffold to the building in enough places to prevent scaffold collapse.

2. Mount all the uprights of the scaffold on proper base plates.

3. Evenly distribute materials over scaffolds to avoid overloading.
POOR EXAMPLES OF BASE PLATES – THEY CAN EASILY MOVE ON THE LOOSE SOIL.

AN EXCELLENT NON-SLIP BASE PLATE

NOTE THE NON-SLIP BASE PLATES HERE. THEY PROVIDE A VERY SECURE BASE FOR THE SCAFFOLD.
Safe Use of Scaffold

1. Secure the scaffold to the building in enough places to prevent scaffold collapse.

2. Mount all the uprights of the scaffold on proper base plates.

3. Evenly distribute materials over scaffolds to avoid overloading.
Scaffolds are inspected by a competent person at least once a week and always after windy and bad weather.
Working platform showing guard-rail and toe board with wire mesh filling between them and the closely boarded platform.
Very Good Boarding

CONSTRUCTION OF CENTRAL BANK IN BARBADOS. NOTICE THE BOARDING AND THE TOOLS. IT IS CLOSELY BOARDED, WITH A TOE BOARD OF SORTS.
1. Secure ladders.
2. Use secured scaffold.
3. Provide safety harnesses, safety nets while working at height.
Different ways of providing safe anchorage points for safety lines.
Omitted "The Use of Safety Belts and Harnesses", as safety belts are obsolete. The highlight of the slide is providing anchorage, and this is still relevant.

Michael, 29/10/2011
NETTING TO BREAK ANY FALLS AND PREVENT INJURY TO ANY WORKER WORKING AT HEIGHTS OR ANYONE BELOW.
INADEQUATE NETTING

AT LEAST WORKER BELOW IS WEARING A HARD HAT
Other common OSHE issues in the Construction Sector
OTHER COMMON OSHE ISSUES IN THE CONSTRUCTION SECTOR

STEP ON INJURIES

HAMMER DOWN NAILS OR REMOVE THEM.
OTHER COMMON OSHE ISSUES IN THE CONSTRUCTION SECTOR

WORKERS UNLOADING CEMENT - NOTICE THEIR HANDS AND LEGS AND THE POSITION OF THEIR DUST MASKS.

WOMEN WORKERS CARRYING AND STACKING 50Kg BAGS OF CEMENT.
OTHER COMMON OSHE ISSUES IN THE CONSTRUCTION SECTOR

CONSTRUCTION AT THE CENTRAL BANK IN BARBADOS – NOTICETHE FOOTWEAR.

A DANGEROUS TASK – PUSHING A WHEEL BARROW FULL OF CEMENT ON AN INCLINE.