Introduction

The following presentations have been developed in both Spanish and English for the construction industry. These presentations focus on the Big Four Construction Hazards – falls, electrocution, caught-in and struck-by.

All training materials will cover the four hazards seen regularly on construction sites and will focus on the methods for the recognition and the prevention of these common hazards.
Struck-by Hazards Overview

A. Hazard Recognition
   1. Struck-by Falling Objects
   2. Struck-by Flying Objects
   3. Struck-by Swinging/Slipping Objects
   4. Struck-by Objects on Ground Level

B. Accident Prevention
   1. Personal Protective Equipment
   2. Material Storage
   3. Proper Materials Handling
   4. Work Zone Safety
Struck-by Hazards

- Struck-by hazards are one of the four most deadly hazards found at construction sites.
- This program will help you recognize common struck-by hazards.
- The symbol will tell you if the situation in the picture is either safe or not safe.
Each year workers die from ‘struck-by’ accidents. During the year 2007:

- Total deaths from ‘struck-by’ cases: 504
- Deaths in construction: 311
- Approximately 26% of deaths in construction are from ‘struck-by’ accidents
- Approximately 10% of all occupational deaths are from ‘struck-by’ accidents
Hazard Recognition

- Struck-by hazards exist any time a worker could be struck or hit by an object.
Struck-by Falling Objects

- Working or walking below elevated work surfaces may expose you to falling objects.
Struck-by Falling Objects

- Materials being moved overhead expose you to falling objects.
Struck-by Falling Objects

- Keep a safe distance from suspended loads.
Struck-by Falling Objects

- Store materials properly.
Power tools and activities such as pushing, pulling, or prying can create flying objects.
Grinding or striking materials can create flying object hazards.
Struck-by Flying Objects

- Air pressurized above 30 psi can drive oils and other particles through your skin.
Do not work under loads as they are being lifted.
Struck-by Swinging/Slipping Objects

- Secure all loads and lift them evenly to prevent them from slipping.
Struck-by Objects on Ground Level

- You may be struck by moving materials.
Struck-by Objects on Ground Level

- Heavy equipment can create serious struck-by hazards.
Struck-by Objects on Ground Level

- All traffic on construction sites can create struck-by hazards.
Workers in work zones are exposed to struck–by hazards from construction equipment and motorist vehicles.
Struck-by Objects on Ground Level

- Never work near vehicle traffic without barricades.
QUIZ

- You will be presented with a specific hazard recognition question to test your understanding of this material.
Question 1

Struck-by hazards cause only minor injuries and are not a big concern to construction workers.

A - True
B - False
Question 1

Struck-by hazards cause only minor injuries and are not a big concern to construction workers.

The correct answer is: B - False
Question 2

A struck-by hazard can be described as:

A - Not wearing a seatbelt while driving a forklift
B - Anytime a worker has the potential to be struck or hit by an object
C - Anytime a worker can get any part of his body caught in or in between objects
D - Falling off a roof
Question 2

A struck-by hazard can be described as:

The correct answer is:

B - Anytime a worker has the potential to be struck or hit by an object
Question 3

_______ is an example of a stuck-by hazard.

A - A spark from a grinder sets grass on fire
B - A worker falls through a skylight
C - A steel member is being flown to the next level and swings, hitting a worker
D - A worker is crushed by an excavator
Question 3

____ is an example of a stuck-by hazard.

The correct answer is:

C - A steel member is being flown to the next level and swings, hitting a worker.
Question 4

When working on interior jobs on construction sites hardhats are not required.

A – True
B - False
Question 4

When working on interior jobs on construction sites hardhats are not required.

The correct answer is:  
B - False
Question 5

When working near vehicles and equipment, you must:

A - Never place yourself between a vehicle and an immovable object such as a building
B - Make eye contact with the operator before crossing the path of the vehicle
C - Always watch for operators who may not be watching you
D - All the above
Question 5

When working near vehicles and equipment, you must:

The correct answer is:  

D - All the above
A willing, positive attitude towards safety will help make a safer work environment.
Accident Prevention

- Plan your work and look for potential hazards.
- Each task will have different hazards.
Personal Protective Equipment (PPE)

- Wear a hard hat if overhead hazards exist.
Personal Protective Equipment (PPE)

- Wear safety glasses or a face shield if flying hazards exist.
A highly visible reflective vest will allow motorists and equipment operators to see you.
Material Storage

- Secure materials so they do not fall on workers.
Material Storage

- Maintain proper housekeeping in all storage areas.
Proper Materials Handling

- Inspect all rigging before using.
Proper Materials Handling

- Never walk or work under a load.
Proper Materials Handling

- Never lift a load that is greater than the crane’s lifting capacity.
Work Zone Safety

- Use extreme caution when approaching heavy equipment.
Traffic work zones must be clearly marked to make motorists aware of the work ahead.
Use physical barriers to protect workers from vehicle traffic.
You will be presented with a specific accident prevention question to test your understanding of this material.
Question 1

Hardhats are the only personal protective equipment required on construction sites.

A – True
B - False
Question 1

Hardhats are the only personal protective equipment required on construction sites.

The correct answer is:

B - False
On a construction site you should store materials:

A - Anyway you want to
B - So they do not fall
C - As high as you can
D - Only on the roof
Question 2

On a construction site you should store materials:

The correct answer is:

B - So they do not fall
Question 3

All rigging used to lift materials must be inspected:

A – Daily
B - Before each use
C – Monthly
D - When you think about it
All rigging used to lift materials must be inspected:

The correct answer is:

B - Before each use
Question 4

To prevent materials from slipping when lifted, you should:

A - Tightly secure them
B - Lift the load evenly
C - Both A and B
D - Neither A or B
Question 4

To prevent materials from slipping when lifted, you should:

The correct answer is:

C - Both A and B
Question 5

Workers are exposed to what types of vehicle traffic in a work zone?

A - Heavy equipment and motorist traffic
B - Motorist traffic
C - Heavy equipment traffic
D - Air traffic
Question 5

Workers are exposed to what types of vehicle traffic in a work zone?

The correct answer is:

A - Heavy equipment and motorist traffic
Photos shown in this presentation may depict situations that are not in compliance with applicable OSHA requirements.

It is not the intent of the content developers to provide compliance-based training in this presentation, the intent is more to address hazard awareness in the construction industry, and to recognize the overlapping hazards present in many construction workplaces.

It should NOT be assumed that the suggestions, comments, or recommendations contained herein constitute a thorough review of the applicable standards, nor should discussion of “issues” or “concerns” be construed as a prioritization of hazards or possible controls. Where opinions (“best practices”) have been expressed, it is important to remember that safety issues in general and construction jobsites specifically will require a great deal of site - or hazard-specificity - a “one size fits all” approach is not recommended, nor will it likely be very effective.

It is assumed that individuals using this presentation, or content, to augment their training programs will be “qualified” to do so, and that said presenters will be otherwise prepared to answer questions, solve problems, and discuss issues with their audiences.
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- As a presenter, you should be prepared to discuss all of the potential issues/concerns, or problems inherent in those photos particularly.
Big Four
Construction Hazards:
Struck-by Hazards

This concludes the Struck-by Hazards Module

“The End”