Fall Protection
Susan Harwood Grant Training Program
2019
Concrete Fall Protection
Learning Objectives

• Understand the OSHA requirements for fall protection during concrete operations

• Identify best practices for protecting workers from falls performing concrete operations
Rebar Protection

Caps can pop

- Caps must protect from injury, especially impalement.
- Mushroom caps are not allowed on low vertical bars.

OK

2 x 4 mount cap

Reinforced Cap

Mushroom Cap
Potential Rebar Impalement

- Workers must be prevented from falling onto vertical rebar.
- Rebar must be protected from potential impalement.
Multiple Rebar Shields

- Shields can be effective.
- Rebar spacing and mounting of supports must meet manufacturers requirements.
Boxing Column Dowels

- Boxes are constructed on 2\textsuperscript{nd} floor and carried floor to floor
Working on Rebar Wall Cages

• Workers must be protected above 6 feet when working on ALL rebar assemblies
Fall Protection on Vertical Forms

- Workers must be protected when 6’ or higher.
- They must position off before working on column and wall forms.
- If the vertical form is near an edge, the employee must establish fall protection before he climbs the form.
Form Scaffolds

• These are good examples of a form scaffolds with proper guardrails.

• This access bridge must be at least 18” wide. The bridge should be protected if there is a fall hazard of over 6 feet.
Construction of Shored Forming

• Employees are exposed to major falls while constructing form work around perimeter columns.

• Workers must utilize fall protection

• This worker is tied off to column behind the edge.
Flying or Table Top Forms

- Workers who must work at open edges more than 6 feet above lower levels must tie off as these employees are doing.
- They can tie to pre-set anchors, the columns behind or other suitable anchorages.
Column Forms

- Fall hazards?
- Scaffolds or lifts help reduce fall exposures.
Safe-T-Straps

- Safety straps are effective, simple anchors in concrete construction.
- They slip over rebar and are then embedded in the concrete.
Install Proper Guards
Potential Trip Hazards

• There are potential trip hazards on reinforced floors.
• Temporary walkways are a good hazard control.
Protection During the Pour

- Floor perimeters must be fully protected by proper guardrails and all holes must be covered
Pre-Cast Concrete Erection
Controlled Access Zones

• Employees may work in a CAZ under a qualified fall plan when it can be shown that standard fall protection is infeasible.

• Plan must be site specific.

• All employees must be trained in the safe erection of pre-cast concrete.

• A safety monitor must oversee the fall safety.

• Warning lines must be set along the edges and guardrails installed as soon as possible.
No Walking Beams!!

- Do not allow workers to walk beams without proper fall protection
Setting & Receiving Planks

• Approach the plank when it is waist high.

• Restraint should always be used.

• The Safety Monitor oversees the safety of the setting process if working under a plan.
Warning Lines Until Guardrails Installed

- Warning lines should protect all perimeters during setting operations.
- Workers can only be outside perimeters when setting precast under a properly established plan.

Guardrails should be installed as soon as possible.