# CSI Country Wide Case Study Safety Strategy Discussion

## Construction Safety Investigator

### Instructions

The objective of this tool is to provide field supervisors with information to proactively engage workers and discuss safety related concerns that they may encounter. Safety discussions should not be limited to the subject above and should pertain to the activities that workers will be involved in that may have the potential for safety related exposures.

**Case Day:**
September 2006

**Accident Type:**
Residential Fall Protection Accident - Fall Through Floor

**Relevant laws, rules and codes may include:**
29CFR 1926.21(b) (2), 29 CFR 1926.500 Subpart M, 29 CFR 1926.501 (b), 29 CFR 1926.502, 29CFR 1926.32, 29 CFR 1926.503, OSHA [1999]. STD 3-0.1A

### Case:

Laborer (the victim) was fatally injured when he fell through a floor opening to a concrete floor below.

### Accident Detail:

The victim was working from the second floor of a two-story, single-family home under construction where he and other workers had completed most, but not all, of the subfloor (plywood sheathing secured over floor joists) on previous workdays.

They had left a floor area open in an attic space where a walk-in closet was to be constructed later. At the end of the shift, the victim's lead worker asked two workers to complete the second story subfloor in the attic space. A co-worker joined the victim and together, they cut two sheets of plywood sheathing and placed them over the joists in the open area in the attic space. The co-worker reported that he was looking down at the sheets of unsecured plywood sheathing, trying to make the pieces fit into an opening that was not square, and when he looked up the victim was gone. The victim had apparently stepped onto a piece of the unsecured plywood sheathing that covered part of the floor opening, and when the plywood sheathing pivoted on the floor joist, he fell through the opening.

### Reconstructive Safety Evaluation:

- What are some of the possible causes of the accident being discussed?
- What actions could have been taken that might have prevented this accident from occurring?

**Accident Scene Conclusion:**

- Investigation determined that the primary cause of the incident was walking onto unsecured plywood used to deck floor openings in the walk-in closet without wearing any fall protection.
- The plywood sheathing that covered part of the floor opening was unsecured, and when the sheathing pivoted on the floor joist, the victim fell through the opening.
- The investigator reported that the ledger used to support the joist and the joist nailing appeared to be substandard; the ledger had separated from the floor framing (girder) to which it was nailed, eliminating the support to the joist that failed.
- Although nonstandard joist and ledger nailing could have contributed to the incident, the primary cause of the incident was walking onto unsecured plywood used to deck floor openings in the walk-n closet without wearing any fall protection.

**Preventive Safety Measures Include:**

- Complete a Job Safety Task Analysis that includes scope of work, anticipated exposures and safety equipment and/or procedures needed to ensure the task is completed successfully and safely.
- Conduct a pre-work meeting to review the JSTA and ensure workers understand the task to be completed, any safe working procedures and have the necessary safety equipment.
- Ensure that all employees are provided with and use appropriate fall protection when exposed to fall hazards.
- Ensure, through employee training and job-site inspection, that correct construction procedures, such as use of appropriate fasteners, are followed during all phases of construction.
- Develop, implement, and enforce a comprehensive, written fall protection program that, at a minimum, complies with applicable OSHA fall prevention standards.
- Assign a competent person to inspect the worksite before work begins to identify fall hazards and to determine the appropriate fall prevention systems for workers.
- Ensure that all employees are provided with training in the recognition and avoidance of fall hazards and the fall protection system they are to use in the workplace where fall hazards exist, in a language and at a literacy level that all workers can comprehend.

**Attendance Roster**

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**Reference: This case was reported in the NIOSH Fatality Assessment and Control Evaluation (FACE) Program.**

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