# 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:

December 2007

### **Accident Type:**

Rigging Accident - Debris Container

# Relevant laws, rules and codes may include:

29CFR 1926.20(a)(1), (b)(2), (b)(3), 1926.21(b)(2), 1926.25, 1926.251

#### Case:

A 56 year old engineer was paralyzed from the waist down when he was hit by falling debris.

# **Accident Detail:**

The engineer was employed by a Construction Manager (CM) hired to construct a high rise building complex. At the time of the incident, the engineer was in his office trailer reviewing plans.

The reinforced concrete subcontractor was utilizing the site's tower crane to lower debris containers from the construction floors to ground level for removal. The containers used were empty 55 gallon drums with holes burned in the sides (under the lid rig) for the rigging to be attached. They are raised to the floors, filled and then lowered back down and emptied.

While picking and lowering a container filled with scrap wood, rebar and other debris, the rigging (wire rope sling) attached to the steel drums tore through the lid ring allowing it to fall 28 stories and through the roof of the engineer's office trailer. The engineer was struck by the falling drum severely injuring him.

# **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:**

The investigation revealed that the concrete contractor was not using appropriate containers designed for the debris removal operations. The weight of the debris being hoisted was unknown which exceeded the drums capacity. In addition the workers assigned to attach the rigging to the containers (drums) were not properly trained or qualified riggers.

### **Preventive Safety Measures Include:**

- All operations are preplanned using a Job Safety Task Analysis (JSTA) to ensure potential safety hazards associated with an
  operation are identified and appropriate steps are taken to eliminate or control them.
- Only properly trained and qualified employees are authorized to perform rigging operations.
- All loads to be hoisted are evaluated and are determined by a qualified person to fall within the safe working limits of the crane and the rigging used (to include skid pans or other containers).
- Ensure containers used to hoist materials or equipment are designed for and capable of performing the task without failure.

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Reference: This case is fictitious, and any resemblance to any persons, living or dead, is entirely coincidental. However, the type of accident described in this case summary happens all too often on construction sites.

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