

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:

August 2007

Accident Type:

Barge Accident - Capsized

Relevant laws, rules and codes may include:

29CFR 1926.20(a)(1), 1926.21(b)(2), Barge Mfr. design and technical specifications

Case:

A demolition worker was killed when a custom-engineered segmented barge capsized in a river after its load became imbalanced.

Accident Detail:

A custom-engineered segmented barge and 25-foot tugboat overturned while a crew was demolishing an old highway bridge. To catch discarded rubble underneath the bridge, the contractor fashioned its own hopper barge out of three Flexi-float segments, steel plates and I-beams.

During the operation, the demolition crew recognized that debris was piling up on the barge, causing a load imbalance. They attempted to solve the problem by using a piece of construction gear with a bucket to press down on one side of the barge, then attaching a cable to one side of the barge and the other end to another piece of the machinery on the bridge to stabilize it. Once they thought the barge was in a stable situation, they attempted to move it.

When the worker went to disconnect the cable with the tugboat attached, the barge tipped one way then reversed direction and capsized on top of the worker, trapping him underwater. He died from drowning in 10 to 12 feet of water.

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?

