

# 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:**

June, 1990

#### **Accident Type:**

Crane Accident - Stability

#### **Relevant laws, rules and codes may include:**

1926.550 (a)(1) and 1926.550 (a)(5)

#### **Case:**

---

A veteran licensed crane operator was running a 40-ton cherry picker on a bridge deck when the crane overturned, fell off the bridge to the ground below, resulting in the death of the operator. Due to the crane's final resting spot across active railroad tracks, major morning railroad service was suspended.

#### **Accident Detail:**

---

A general contractor (GC) was contracted to rebuild an existing bridge structure that carried vehicles over a computer rail road line leading into New York City's Penn Station.

A 40-ton cherry picker operated by a seasoned crane operator was situated on the deck of the bridge utilized to service material to workers below working on the construction of the bridge's piers and associated work.

At the time of the accident, a man-lift, which was needed to be lowered from the bridge deck down to the work area below the bridge and adjacent to the railroad, was rigged to the crane. The operator proceeded to boom up with the load (man-lift) and began to swing the load (man-lift) over its front left outrigger when the load broke free causing the crane to overturn landing at the bottom of the bridge pier.

#### **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 indicated that the weight of the hoisted load (man-lift) exceeded the rated capacity of the cranes operating boom length and radius resulting in the crane sustaining stability failure.

### Preventive Safety Measures Include:

---

- Prior to any lift, ascertain the weight of every load being hoisted.
- Verify that based on the cranes set-up and configuration, the hoisted load is within the safe rated capacity of the crane's load chart.
- Verify that proper rigging procedures and equipment capable to support the weight of the load has been determined, provided and executed.
- Verify that the crane is properly set-up and operating according to manufacturer's requirements.
- Conduct pre-planning meeting with the work crew prior to lifts, to ensure means and methods, as well as safety procedures have been discussed and reviewed.
- Inspect crane and ground conditions on a daily basis.

### Attendance Roster

---

---

---

---

---

---

---

---

---

---

---

---

---

**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.**

**Chubb. Insured.<sup>SM</sup>**

Chubb is the marketing name used to refer to subsidiaries of Chubb Limited, providing insurance and related services. For a list of these subsidiaries, please visit our website, [www.chubb.com](http://www.chubb.com). Insurance is provided by ACE American Insurance Company and its U.S. based Chubb underwriting company affiliates. All products may not be available in all states. This communication contains product summaries only. Coverage is subject to the language of the policies as actually issued. Surplus lines insurance is sold only through licensed surplus lines producers. Loss control evaluations, reports, recommendations and services are made solely to assist the insurer in underwriting and loss control and are not to be construed as an added benefit for the insured, property owner or any other party (this may not apply if loss control services are purchased separately and specifically pursuant to a service agreement). Evaluation for any hazard or condition does not imply that it is covered under any policy. Chubb is the world's largest publicly traded property and casualty insurance group. With operations in 54 countries, Chubb provides commercial and personal property and casualty insurance, personal accident and supplemental health insurance, reinsurance and life insurance to a diverse group of clients. Chubb Limited, the parent company of Chubb, is listed on the New York Stock Exchange (NYSE: CB) and is a component of the S&P 500 index.