



## 6 Key Hazards Most Often Related to Cranes and Derricks on Construction Sites

(Sourced from: "[6 Key Hazards Most Often Related to Cranes and Derricks on Construction Sites](#)" by Denny Jacob - Property Casualty 360)



The U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) has [published a final rule](#) that clarifies certain requirements for crane operators and maintains the employer's duty to ensure that crane operators can safely operate the equipment. The final rule will become effective on Dec. 9, 2018; the evaluation and documentation requirements will become effective on February 7, 2019.

Under the final rule — which is a part of the crane and derricks standard that went into effect in 2010 — employers are required to train operators as needed to perform assigned crane activities, evaluate them, and document successful completion of the evaluations. The rule also requires crane operators to be certified or licensed and receive ongoing training as necessary to operate new equipment.

### OSHA's Rule Broken Down

A majority of the regulations under the crane and derricks standard were in effect but Hank Dutton says "what has been delayed is the operator's certification component of the standard." From 2010 to 2014, OSHA put a delay in place to [allow contractors at that time to become compliant](#). The delays that followed in 2014 to 2018 were a result of pushback from the industry.

Dutton, a senior technical specialist at Travelers, is a NCCCO (National Commission For The Certification of Crane Operators) Certified Lift Director and Construction Safety Specialist. In his current role, he sits on several committees that write national certification exams for crane operators and riggers.

With over [30 years of experience in the construction industry](#), Dutton is passionate about worker safety. With this in mind, here are Dutton's six key hazards most often related to cranes and derricks on construction sites.

### **Having Unqualified Lift Directors and/or Not Having a Sound Lift Plan**

A lift director oversees the work being performed by the crane and the associated rigging crew. Each contractor should make sure the lift directors have proper training and are qualified to understand the lift plan (a document or plans – sometimes written or unwritten). Dutton says the plan must be well-communicated to the employees to ensure safe crane operations and to think of the lift plan as the specific steps to completing the project.

### **Ground Conditions**

Because mobile crane operations are physically supported by the ground, it's important to check the ground conditions. If the ground is not level, is not firm enough, or has underground hazards such as pipes or pits, safe crane operations will be impossible to achieve.

### **Overloading the Cranes**

As reliance on computer systems grow, crane operators need to understand and compute what the crane is lifting to avoid overloading the cranes.

### **Rigging Failures**

Not having qualified riggers is detrimental to crane operations. Knowing how to rig different loads and materials is key. Additionally, Dutton says riggers should understand the types of slings and rigging hardware that is used.

### **Power Lines**

According to Dutton, power lines have historically been one of the top leading killers of people involving mobile crane operations. If contact is made with an overhead power line, the electricity flows through the crane upon contact and looks for the path of least resistance – exposing the people on the ground to the risk of electrocution.

### **Wind**

Wind can lead to crane accidents when large surface area loads are raised. The wind pushes against the load and increases its radius. From where the crane sits, if the load swings further away, the crane actually loses capacity. Dutton says if the operator or life director hasn't compensated for that loss in capacity due to increased radius, that's when cranes turn over.