

Safety Risks Resurface as U.S. Construction Booms

GENERAL CONTRACTORS ARE INCREASINGLY BEING HELD ACCOUNTABLE FOR JOBSITE SAFETY



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Keeping The Jobsite Safe in a Booming Market

Construction is coming back. The bottom fell out in 2010-2011, with millions of jobs lost due to the Great Recession. Nationally, construction payrolls reached a high of eight million in August 2006, and plunged to a low of five million in January 2011. The figure stands at 6.7 million at the end of 2015, according to the U.S. Bureau of Labor Statistics (BLS).

Thanks to “meds and eds” – commercial medical and education construction – and U.S. infrastructure rebuilding, four in five contractors report being worried about labor shortages. There aren’t enough qualified candidates to keep up with demand. Retirees in their sixties are returning to jobsites. Trade unions are rolling out more apprentice classes after years when new enrollees could be counted in the single digits.

New York City, for example, is experiencing a building boom that has transformed deserted blocks and led to a surge of construction activity across all five boroughs.

Unintended consequences

But the resurgence of construction comes with a cost. In New York City, 324 workers were injured in the last fiscal year, a jump of 53

percent, and 314 accidents were recorded – an increase of 52 percent from the previous year, according to the city’s Buildings Department. Seven city construction workers were killed on the job between July and October 2015. At the end of November 2015, the NYC Buildings Department had received more than 2,000 complaints of site conditions endangering workers; in 2005 the number of dangerous condition complaints totaled 682.

Construction is the most dangerous industry in the United States. Of 4,251 worker fatalities in private industry in 2014, 874 – 20.5 percent – were in construction, according to the BLS. That’s one in five worker deaths. The “fatal four” – falls (349 deaths), electrocutions (74), struck by objects (73) and caught in/between (12) – accounted for more than half (58.1 percent) of construction-related fatalities.

Everyday hazards

Everyday hazards in construction include excavations, noise, dust, power tools, confined spaces, electricity, fire and explosions, workplace violence, chemical exposures, moving vehicles/road transportation, and work at heights. Highway contractors confront

particular risks. In the past year, 46 percent of highway contractors reported a work zone crash, according to a study by the Associated General Contractors of America. Drivers and passengers are more likely than highway workers to be hurt or killed in work zone crashes. About one in four contractors (26 percent) reported that work zone crashes in the past year forced temporary shutdown of construction activity. And delays were often lengthy, with 48 percent of those shutdowns lasting two or more days.

Time is money in construction. There is a premium on speed. And the pressure to complete projects on time leads to injuries caused by rushing, taking shortcuts, inattention, and putting oneself in the line of fire. In New York City alone in 2015, construction injuries included a worker falling 18 steps down a stairway, a worker's finger crushed by a load of rebar, a worker running to catch an elevator and pulling his hamstring, an iron worker slipping on slushy ice and cutting himself, a worker twisting his ankle going down stairs, police being called to break up a fight between two workers, concrete laborers suffering nail punctures, and a laborer tripping over pipes and hurting his knee and ankle.

Construction injuries are often anything but "blame the victim" incidents. Many of the incidents described above go largely unnoticed, involving small projects and small contractors. Small contractors, often owner-operated with perhaps up to a dozen workers, fly under OSHA's radar and are not inspected. Many workers in these small outfits – sub-subcontractors who pay the least and do the dirtiest work – lack safety training, safety supervision, personal protective equipment (PPE), and adequate safety communication. In New York City, undocumented immigrant laborers – "off the book" workers who are paid in cash and are afraid to speak up and report hazards and near-misses – account for most of the rise in construction deaths and injuries.

Solving communication barriers

Safety communication is a problem beyond "fly-by-night" small contractors. In an Associated General Contractors study of 100 mostly large contractor members, 88 percent said they do not talk about specific safety issues at morning or daily pre-work meetings.

Communication problems are exacerbated by the large number of immigrant workers in construction. Many times, a large number of workers on a jobsite do not understand a word of English. Verbal directions can be futile. And safety expectations, accountabilities, compliance, and standards are not understood.

Good visuals improve communication, with pictorials often more effective than English-spoken explanations. Visuals can indicate the need for hearing protection, fall protection, respiratory protection, eye protection, hard hats, and hand protection. Labels warn of truck crossings, fire and explosion hazards, electrical voltage hazards, no-smoking areas, no-eating areas, slip, trip, and fall dangers, lifting risks, toxic chemicals, and machinery hazards.

Causes of serious injuries and fatalities

Serious injuries and fatalities (SIFs), which have plagued even large contractors with the best safety records, will receive heightened attention as the construction revival sweeps the nation. The industry has learned in recent years to identify, understand, and mitigate

"precursor" events – the causes of SIFs. Research shows that jobs with a high risk of precursor events include operating or working around mobile equipment; confined spaces; working with energized equipment requiring lockout-tagout procedures; manual lifting; working at heights; and material handling.

High-risk construction work can be identified by contractors with experienced safety staff, ingrained safety cultures, robust safety programs and protocols, and software – online contractor management platforms – that track contractors' work hours, incidents, near-misses, and vehicle safety information.

Who's in charge?

But who is responsible for mitigating dangerous work conditions, eliminating precursor events such as working at heights without fall protection, and ensuring compliance with OSHA standards? A recent court case is illustrative. The court upheld an OSHA citation against a general contractor on the basis of OSHA's multi-employer worksite liability doctrine. OSHA's doctrine holds that an employer, including a general contractor, who creates or controls a worksite safety hazard, may be liable for standards violations even if the employees exposed to the hazard are solely employees of a different employer.

In this case, OSHA cited a general contractor (GC) for failing to provide ground-fault circuit interrupter (GFCI) protection on equipment it rented. OSHA charged the GC to be the "controlling employer" because of its authority over a 90-unit complex project involving multiple contractors. The GC had only two of its own employees on the site, a general superintendent and his assistant, who were doing no actual work. The GC subcontracted framing work to a construction company that had only one employee on site, a superintendent. That company in turn subcontracted with a small framing company to do the actual framing. The framing company, with ten to twelve employees on site, including its owner, used the unsafe equipment but was not cited.

The citation alleged that the GC failed to ensure that the employees of the small framing company were not properly protected from the electrical hazards created by the use of equipment without GFCI protection. The GC's superintendent had not inspected the





equipment and did not notice whether it had GFCI protection when the equipment arrived on site or at any time prior to the OSHA inspection. The GC superintendent also had contacted the leasing company to obtain instructions when the framing company's employees were unable to get the electrical equipment to work. He also ordered the GFCI protection following OSHA's citation.

Bottom line: OSHA holds that regardless of stated company policies or written agreements, overarching responsibility for jobsite safety cannot be "contracted away" or outsourced. General contractors are increasingly being held accountable for jobsite safety and are expected to prevent, detect, and abate standards violations on their sites by virtue of their control over the work schedule, coordinating the work, and expediting or terminating the subcontractors' work. But subcontractors and sub-subcontractors (lower-tier contractors) are not let off the hook. OSHA's joint responsibility doctrine holds that both the prime contractor and his subcontractor or subcontractors, regardless of tier, can be held liable for violations of OSHA standards.

Many host (client) companies invest time and money on screening, qualifying, and grading the safety competency of GCs and subcontractors. Marathon Oil grades contractors' safety performance using these metrics: 35 percent of the total grade is based on the contractors' Total Recordable Incident Rate (TRIR), lost workday rate, fatality rate, and workers' compensation claims; 30 percent is based on the robustness of the contractors' safety program; 20 percent on its safety culture; ten percent on its safety training; three percent on field verification; and two percent on receiving a safety responsibilities acknowledgment form. Safety records such as the TRIR are often scrutinized on a three-year basis.

Laying the groundwork

Managing contractor safety is largely a proactive exercise. Most of the work is completed before breaking out hammers and nails and firing up equipment. Crucial steps include:

- **Prequalification:** Assessing contractors on their safety statistics, injury logs, environmental reports, and continuous improvement programs.
- **Pre-job task and risk assessment:** Evaluating the risk of work to be performed, typically using a risk matrix capturing the degree of risk severity and the frequency of risk occurrence, to place

contractors in a predetermined risk category. This assessment identifies the need for specific safety protocols to be put into place. More than three-quarters (76 percent) of Associated General Contractor members conduct pre-job safety analyses, and 87 percent identify job-specific safety requirements for subcontractors.

- **Orientation and training:** Before any work begins, host companies should require safety orientation and skills training of contractors in order for them to be approved for work. Specific training or permits should be required for hazardous jobs such as confined space entry, electrical work, hot work, energy control, forklifts, and elevated work. The oil and gas company Anadarko informs contractors of their role in emergency management and provides communication tools to report incidents.
- **Communicate expectations:** Anadarko expects its contractors to respect its core safety values, embrace its safety culture, strive for zero injuries and incidents, report all incidents and share lessons learned, continuously work to reduce risks, and comply with all laws, regulations, company policies and procedures, and standards.

Once work on a jobsite begins, best practices for managing contractors include:

- **Job monitoring:** Conduct audits, investigations, and behavioral observations of contractor safety leadership by management and supervisors, non-management safety accountability and responsibility, performance of safety personnel, contractor safety goals and standards, training effectiveness, communications, risk reduction efforts and incident investigations.
- **Feedback and evaluation:** Open, two-way communication is essential for effective contractor safety management. It's a challenge given the scheduling pressures and often multiple contractors on a single site, but still, 65 percent of Associated General Contractor members track subcontractor safety performance, 83 percent include safety in supervisory/management performance evaluations, and 75 percent include safety in non-management employee performance evaluations.

New U.S. construction starts in 2016 are expected to grow six percent to \$712 billion, according to Dodge Data & Analytics. Commercial building will increase 11 percent, up from a four percent gain in 2015. Commercial construction employment is forecast to increase approximately ten percent in 2016-2017. A surge in construction safety activity and investments will be needed to keep pace with the national building boom in order to reduce serious injuries and fatalities, and keep overall TRIR safety records at their current low levels.

Accuform is prepared to help. Request our Construction Express Catalog today by calling 800.237.1001.

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