

OSHA Safety Training

By Carrie O'Donnell

How a new culture of safety is providing business impact in the construction industry.

In the 35 years that OSHA (the federal Occupational Safety and Health Administration) has been in existence, workplace fatalities have dropped by 60 percent and lost-time incidents and injuries have decreased by 40 percent, even while the workforce in the United States has nearly doubled to 105 million workers. Regulations for safety training have been an important element in driving the decrease in safety incidents, particularly in the construction industry. Likewise, many companies have taken the position that reducing incident rates and job site incidents through training and creation of a safety culture not only saves life and limb, but also makes good bottom line "cents" as well!

In the past 10 years, the construction industry has seen monumental growth in the number of workers taking part in OSHA outreach training. In 2005, 376,000 workers received their safety card, compared to only 84,000 workers who were issued cards in 1995. According to Don Guerra, coordinator of the OSHA Outreach Training Program, this growth has been largely organic, driven by trade associations and enlightened companies that have made safety their mandate. Guerra notes, "Grassroots folks and industry stakeholders have seen that the OSHA training program is one way to standardize training nationwide for a clientele that is transitory." To support this growing constituency, OSHA increased its emphasis on enhancing private sector training, establishing four education centers in the early 1990s to support workers who were without direct access to OSHA compliance courses. There are currently 19 OSHA education centers.

Safety training itself has changed significantly over the past 20 years. The OSHA training was originally launched as a 10- and 30-hour voluntary orientation to the most basic pervasive hazards in the construction industry, including fall protection and working with electricity. Through the 1980s and 1990s, construction workers attended the 10-hour training course in an instructor-led, classroom environment. In the early 2000s, a few online programs became accepted by the OSHA outreach program. In 2002, Turner Construction Company—a leading nationwide construction firm founded in 1902—expanded the model, developing an extended 30-hour course that covered a broader range of safety practices, standards, and policies relevant to today's workplace. At Turner, employees, contractors, and subcontractors are all required to take the 30-hour course, which offers considerably more in detail into the pervasive hazards than the 10-hour overview and offers greater interaction and reinforcement through on-site safety situations. At the same time, Turner began offering a variety of 30-hour programs both online and instructor-led, which allowed for greater flexibility in where and when workers could complete their training. Many other companies in the industry are following this lead, and offering their workers a variety of online and traditional options.

Reaching a wider and more diverse audience

Most OSHA construction training is still delivered live, with more than 8,000 trainers conducting more than 26,000 classes per year and workers relying on the traditional exchange of experiences and ideas with instructors and one another. However, the rapid growth of the workforce, compounded by the growing number of transient workers, is raising the demand for OSHA certification, creating a dilemma for many companies in the construction industry whose core business is keeping people working on the job. Live training is too often offered at the wrong place and wrong time, keeping workers away from the job site, not the most productive means for training a worker who is not accustomed to sitting in an office all day. How to balance the need for a well-trained workforce with the reality of keeping employees on the job? Turner Construction was one of the first to address this by offering an innovative approach that combines instructor-led classes with online training modules. This has created an interesting paradigm shift in the construction industry, with an increasing number of large construction companies offering mandated safety training through a blend of online and classroom-based courses. To date, there are dozens of companies that offer some form of blended OSHA curriculum to the industry.

As more leading construction companies require their workers and contractors to complete the 30-hour OSHA course, many have adopted this blended model of delivery, balancing the need of companies to reach a broader audience, but still share their expertise directly with their workers. But this raises the question, How do you ensure that workers are gaining the same knowledge? In addition, the content is dense, including technical information on a wide variety of topics ranging from electricity to building concrete forms to scaffolding. Most construction workers come into the course with a lot of knowledge about one or more of the topics. The online programs offer greater flexibility and enable workers to move at their own pace.

Making safety an ongoing part of the culture

Baker Concrete, a national contractor, offers a live classroom 30-hour OSHA training program that is customized for concrete workers. They also send workers through the blended Turner 30-hour program, which combines online coursework with a one-day live session. Rich Farr, director of safety at Baker, commented that the online program "saves time and provides efficiency when we need to get someone quickly through the program." It is especially useful for remote workers, so that, for example, a worker in Oklahoma can complete the online portion in his or her own timeframe, and be flown into Texas for the face to face one-day live follow-up.

When asked about the future of safety training, Ernie Thompson, OSHA's chief of training and educational programs, commented that we are already seeing leading companies make safety "part of the whole atmosphere and philosophy of organization." He stressed that safety training can't be a one-time event. "It has to be reinforced...Companies have to deal with issues that come up, such as not following safety procedures, and conduct refresher training. If someone almost hits a power line with a boom, maybe we need to step back and revisit the training."

Leading companies are already moving in the direction of making safety training part of their cultures. Executives at both Baker and Turner see safety as more than a training issue and that maintaining a safe work environment as a critical element of their day-to-day business processes. They have found that focusing on the safety of their workforce is also good for their bottom line. Within two years of launching the 30-hour course, Turner's lost work days due to safety incidents dropped by 60 percent. Analysis also led the management team at Turner to discover that safety incidents occur more frequently after major holidays, when workers are tired and distracted. So, just after July 4, Turner hosted a "safety stand-down" program: all job sites shut down for a 40-minute discussion on safety, reminding workers to stay focused on the job that day. As a result, the number of safety incidents at Turner that month dropped noticeably. According to a 2004 study conducted by the Corporate Executive Board, companies that have imbed safety awareness programs and compliance into the fabric of their workplace culture have seen significant upturns in both lagging and leading safety performance indicators.

As part of the effort to make safety an integral part of the culture at Turner Construction, it is developing a refresher course for workers who already have a 30-hour OSHA Certification card. According to Mark Terhar, director of operations for Turner in Cincinnati, "The intent is to have a refresher every three years—maybe even more frequently if we have a paramount issue such as fall protection. We need to identify where people are getting seriously hurt and why, and then react to that with the training. Reacting with interventions for specific safety concerns is much better than using a shotgun approach."

Turner is not the only company that recognizes this shift in philosophy that safety is integral to good business practice. Validating the costs associated with these interventions, a 2004 survey by Occupational Hazard shows that 85 percent of workplace accidents result from unsafe behavior. Accordingly, the same report suggests that company's costs associated with workplace hazards has also increased, upwards of \$230 billion per year, directly linked to occupational injuries and lost productivity.

Companies like these have shown that focusing on safety saves lives. Just as important, making safety important creates a culture where safety, and taking the time to do it right, become a higher priority than getting the job done. This new focus is showing real business results, such as in better building structures, with higher productivity, with fewer problems after the job is done. Indicators show that this paradigm shift is

trickling down throughout the industry, led by firms like Turner and Baker, who are leading by example and that educating and providing safer environments for the thousands of small companies in the industry is good for business as well as their workforce.

What makes this new online compliance training truly effective?

In the past 30 years, there has been increasing study of the way adults learn. The prominent learning theorists break the learning process into different models or sets of steps, but they generally agree on a few major tenets that underlie the design of all effective training programs. For example, adult learners—who already have previous learning and life experience—need a flexible experience that makes it easy for them to focus on content they don't know and skip over or skip quickly through content where they have knowledge or competency. They expect that the learning will be relevant and that it should be presented in the context of real-world problems or scenarios. Last, it should give them the opportunity to practice (or to fail) in a safe environment.

Guerra at OSHA noted that in his view the blended model is the wave of the future: "It allows a group to be on same page, with fewer days away and less time off the job. It combines the best part of the online learning experience with the interaction, peer-to-peer exchange and sharing of expertise in a live training setting."

However, a recent review of various online OSHA construction course offerings found that many of the online safety courses can still be characterized as "Tell & Ask" instruction. The information is presented in a non-contextual or non-interactive manner (usually in slides, page turner programs, and occasional video), with student interaction with the subject matter limited to answering multiple-choice or true/false questions for each module. Research shows that this type of methodology can be very dense and boring, with courses appearing light in relevance, problem solving, and interactivity with the subject matter.

The Turner OSHA program, on the other hand, provides a varied and instructionally sound learning experience. The course is designed as a blended program, including 24 hours of web-based, self-paced instruction followed by an eight-hour instructor-led refresher session. Workers are drawn into each lesson with compelling and often sobering facts, examples, and statistics. The lessons are peppered with interesting case studies and activities that mirror the conditions of a work site. For example, workers are shown pictures and asked what is wrong with a particular situation, and what conditions in a particular site could be hazardous. They are also asked to reflect on and write about their own experiences. Finally, the Turner 30-hour course is reinforced with videos and specific information that reinforces Turner's company mandates and policy.

Richard Klingshirn, SVP of content services for Intellinex (the company that designed and developed the OSHA program with Turner), believes that "retention and transferring the knowledge to the workplace are even more critical in this course, as people's safety and lives hang in the balance." Klingshirn adds, "Getting people to change behavior on the job is the primary goal of learning and we are pleased that courses taking a more interactive and scenario based approach to safety compliance in the construction industry add much greater value to both the individuals and their companies."