

Safety: the bedrock and the bottom line

By Alan Rosenberg

These days, safety is the air that everyone breathes. It's the lifeblood, the mother's milk, the bottom line, the bedrock of companies where hazards are inherent. The fact is, no cliché could overstate the case. An industry that historically paid little but lip service to safety concerns has, in recent years, fortified its resources and focused its attention on the subject. While advances in technology have had an impact, along with the pressures from rising insurance premiums and federal regulations, the dramatic improvements can be attributed to companies that have made safety and worker health issues the single highest priority.

More than 11,000 pounds of explosives may be used in a single production blast to harvest aggregate in the Blue Rock Industries quarry in Westbrook. In the past, to load the



Safety issues are complex but paramount for blasting companies like MD & B

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Tragedy Spurred Safety Culture at Cianbro

In 1987, a bridge worker for Cianbro Corporation died in a fall. At the funeral, his 9-year-old daughter approached company president Peter Vigue. She tugged on his coat sleeve. "Why," she asked, "did you kill my dad?"

As soon as the funeral was over, Safety Director Alan Burton recalls, Vigue made a solemn declaration to his executives. "We're not going to any more funerals. I'm not going to have to answer a question like that again. And we're going to do what we have to do to make sure."

The fatality had been an accident. The worker had detached the single safety lanyard to move around a column. Before reattaching on the other side, he lost his balance. All current OSHA safety rules had been adhered to.

That fact wasn't enough for Vigue. He ordered the entire company's operations shut down for two weeks. The safety director at the time, a retired police captain had challenged him. "You don't have the courage to run a safe company." Vigue took the challenge and proved his courage, says Burton.

"For those two weeks, we did a lot of brainstorming on what needed to be done to prevent people from falling." The brainstorming led to a field trip to examine parachute harnesses; that gear, the reasoning went, rarely failed.

They took a parachute harness, rigged it with two, rather than just one lanyard, and used it as a prototype to manufacture what's now the industry standard "100 percent tie-off system." A worker moving around a column, could now remain safely tied off at all times.

Since then, says Burton, the company has gone more than 47 million work hours without a serious injury from an elevated fall. In 1987, the company recorded 87 lost-time injuries. This year, to date, there have been only three. And while the national lost time injury rate in heavy construction is 4.2, Cianbro's rate is .25.

The change in gear was only one part of a company-wide shift to a safety culture, says Burton. Two million dollars a year is invested in training, and 40 percent of that is safety related; more than 1,500 employees have OSHA-related training.

Most important, says Burton is top-down accountability. For each and every incident in which a worker requires medical treatment, the regional vice president involved has to answer to the president, in person, on the following Monday morning.

The lesson from 1987 has never been forgotten.

Alan Rosenberg



MDOT photo.

Cianbro, Reed & Reed, The Lane Construction Corp. & Lou Silver are all major contractors on the Prospect Verona Bridge

shot, Maine Drilling and Blasting laborers would have had to haul 220 50-lb. sacks of granular explosives to the site, doing work that can stress the body and become a source of injury.

But these days, says Joe Taber, Quarry Manger for Maine Drilling, the company relies more on a bulk loading

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Heavy construction companies in Maine are making safety a top priority

system; not a single sack has to be lugged up the rugged slope. Instead, a single inch-and-a-quarter hose is played out from a bulk truck, and carried up the rise. At a rate of up to 380 gallons, or almost 400 pounds a minute, the explosive emulsion is then pumped into the bore holes.

While bringing obvious efficiencies to a labor-intensive task, the bulk program is also one of many examples of how heavy construction companies in Maine are paying heed to safety and worker-health-related issues.

“For companies like Maine Drilling and Blasting,” says President Bill Purington, “it has to be all about safety. We don’t see our commitment to safety as a necessary evil, but as an essential component of the business.”

A good safety record, say experts, is the result of a culture that puts a premium on training programs, while developing within employees character traits such as humility and the ability to be flexible in an approach to ever-changing challenges.

Work on the new Waldo-Hancock Bridge and the Route 1 approach provides a window through which to view how safety considerations are implemented in the field. While the Cianbro-Reed & Reed team takes on the bridge construction, Lou Silver

Inc. is providing a new approach just 150 feet west of the existing road; the Lane Construction Corporation is a major project contractor as well. As the subcontractor on the project, Maine Drilling and Blasting must trim ledge as high as 95 feet, blasting close to the road and to the fragile structures at nearby Fort Knox. Safety issues are, necessarily, quite complex, says blast superintendent Dana Lawrence.

With the terrain rugged and steep, drills often need to be winched, with both drills and drillers tied off to separate “deadmen” (the name for anchors secured in the earth.) But merely using solid steel deadmen stout enough to support the weight of the drill and the driller respectively is far from the only consideration, says Lawrence.

Still, to assure safety, there’s no substitute for employing experienced personnel. “For instance, just because someone works for us as a driller doesn’t mean we will have him drilling off the side of a mountain,” said Lawrence. “Only certain drillers with experience and expertise are assigned winch work.”

Of course, the value of having experienced personnel within a company must be coupled with the willingness to call upon that wisdom when the situation demands it. That’s where humility comes in. A know-it-all attitude can be a silent source of danger. The expertise may only be a phone call away, says Lawrence, but if an employee doesn’t make the call, it won’t do any good.

The best safety strategy on the Route 1 work, says Lawrence, is to avoid having to winch a drill in the first place. So, when possible, the work is being done in separate “lifts.” A first series of blasts will scalp the top layer of ledge, creating a level bench or platform from which to more safely drill and blast the remaining rock.

Bridging the safety gap

For Cianbro, charged with building the new bridge in partnership with Reed & Reed, there’s

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nothing like an encore. The company is proud of its success last year in safely performing emergency cable replacement to re-open the old structure to heavy traffic. Even under pressure, the company never sacrificed safety for speed. Working around the clock, seven days a week for eight weeks, "we got through the project without an incident," says Kaven Philbrook, senior project manager.

The biggest risk, of course, was working 200 feet above the water and 130 feet above the bridge deck. Assuring safety, says Philbrook, depended on careful and conscientious planning and preparation, including the construction of elevated shelters.

"We took extra time in the beginning to create an environment where our folks could go up and work comfortably and get out of the weather," he says.

Sip a squencher for safety

When you think of all technological breakthroughs that affect job site safety, Squencher or Gatorade will probably not be the first to come to mind. But says John Koris, Environmental, Safety and Health Manager for Pike Industries in Maine, keeping employees hydrated can be a critical component of the program.

"These paving guys may be standing near 200- to 300-degree heat and on a hot day the problem's compounded," says Koris. By stocking the pick-ups with coolers and "strongly recommending" that the workers drink, the company has cut down on heat exhaustion problems that could short-hand a crew.

Tailgate parties?

Fill in the blank: "Tailgate - - -"

Most people, particularly during football season would probably say "party." But for folks working in the heavy construction industry, the appropriate fill-in these days might be "talk" or "training" or "safety meeting."

Maine Drilling and Blasting refers to their daily on-site sessions as "Heads-up," with supervisors or foremen focusing on whatever may be relevant to the job or, perhaps, to the season. For instance, says Galletta, a weather report that calls for thunder storms might set the meeting's agenda, or the fact that school is back in session and kids might be playing in the area.

At Pike Industries, every Monday morning, between 6 a.m. and 6:30, field managers hold 'safety tool box talks.' "We are," says Koris, "religious about it."

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"Good companies have convinced themselves that by becoming more safety conscience they could control costs that affect the bottom line," says Rich Beaumont, a loss prevention consultant to heavy construction clients of Liberty Mutual Insurance Co.. "So many companies today have become conscientious about identifying exposures and coming up with remedies."

It has, says Beaumont, been "a slow but steady pro-



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cess to get the message across. Ten years ago on a job site you might see people put on their hard hats only when the boss came around. Today, wearing a hard hat has become second nature."

The success of a company's safety program can be measured by its financial impact. Insurance companies set rates, in part, based on the "Mod" or experience modification factor, a multiplier that directly impacts premiums. The fact that Maine Drilling Blasting's "mod" has continued to decrease over the years bodes well for the company, says Purington. But the bottom line is only one way to look at safety issues. Company executives and safety officials say the impact of a concerted safety effort is also personal.

"We owe it to our employees and their families," says Purington, "that they feel confident that they're going to come home from work, alive, and with the same number of digits on their hands and toes on their feet."

Alan Rosenberg provides public relations services to clients from coast to coast. He may be reached at alan@rosenbergpr.com or 1-406-755-8400.

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