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MATURING TO SAFETY

A new safety culture survey ranks Alberta’s heavy construction industry as proactive, but a third of the industry still falls short

BY R.P. STASTNY

Alberta’s safety record in heavy industrial construction and maintenance has been improving. Since the Construction Owners Association of Alberta (COAA) launched the “Twice as Safe, Twice as Productive by 2020” initiative in 2014, the province’s total recordable injury incident rate has dropped from 1.6 in 2014 to 0.7 in 2016.

To ensure that this positive trajectory continues, COAA teamed up with the University of Alberta (U of A) this spring to conduct a survey to better understand Alberta’s safety culture and the level of safety maturity across the industry.

Before discussing the results and how COAA plans to use them, however, it’s worth anticipating the belief that Alberta’s safety has improved because oil prices collapsed in 2014 and less industrial construction meant you could hire better workers that aren’t as rushed.

Lianne Lefsrud, an assistant professor in engineering safety and risk management at the U of A, led the academic team on this survey and says there are two sides to that argument. “Some research suggests that when the price of oil is high, there are more resources available for safety and leads to better safety outcomes,” she says. “But there’s other research that suggests companies throw money at things without being necessarily more careful.”

RESULTS

Drawing on an online sample of almost 1,300 respondents, a key finding of the safety culture survey is that the overall maturity of Alberta’s safety culture is perceived as proactive. This is a high rating within the survey’s five-tier maturity scale: vulnerable, reactive, compliant, proactive and transformational.

The most common answer characterizing the proactive level of safety is, “We try to anticipate safety problems before they arise.”

SAFETY SUCCESS

The following are 10 areas in which more than 50 per cent of those who answered the survey perceive their company to be transformational:

1. My supervisor engages me to review the scope of work and assess the hazards and supports me in reducing risks so work is safe.

2. My company expects us to learn from problems by understanding what caused them and looking for ways to prevent future problems.

3. All levels of the workforce participate in peer-to-peer safety assessments as a routine part of their day-to-day activities.

4. All levels of the workforce are actively involved in hazard assessments.

5. Safety information flows naturally among the workforce, supervisors and managers as well as through formal processes.

6. Managers, supervisors and fellow workers give positive and constructive feedback on a regular and ongoing basis. We are all self-motivated to make our workplace as safe as possible.

7. The management of change process is applied to organizational, technical, operational and plant changes. Workforce involvement is used to enhance effectiveness.

8. I have complete trust in my immediate supervisor.

9. The supervisor ensures that only those with up-to-date training and appropriate competency get involved in hazardous work.

10. The culture of the entire workforce discourages risk-taking behaviours and encourages actively engaging with each other if a worker observes issues.
“What we’ve done here that hasn’t been done before is look at the maturity of the industry as a whole rather than at individual companies. This allows us to compare companies on the safety landscape of this industry. Although this is not a representative survey, among the companies who responded, we show a positive relationship between increased maturity and improved safety performance. It’s nice to see,” Lefsrud says.

Also nice to see is that only two or three per cent of respondents judged their companies as vulnerable, while the second-largest group of respondents perceived their companies to be at the highest end of the spectrum: transformational.

Lefsrud notes that the people who voluntarily responded to this survey tend to work in safer companies than those who did not respond. So while Alberta’s safety maturity is mostly a good news story, there is ample room for improvement. When the two or three per cent of companies perceived as vulnerable and the four or five per cent as reactive are added to the companies that are only compliant, the results add up to a significant 30–40 per cent in the lower part of the spectrum.

FROM PROACTIVE TO TRANSFORMATIONAL
The survey found that Alberta’s safety culture is well advanced in the ability to respond to major incident risk. This isn’t surprising because planning for and developing a strategy to deal with the obvious and big risks makes undeniable sense to most people.

More surprising is the finding that management commitment to safety ranked second-lowest out of the 12 safety cultural elements in the survey. In virtually all industry discussions of safety culture, the importance of management buy-in, of management leading the charge on safety, is considered critical to success.

“Some managers might say, ‘Yeah, I’m committed to safety,’ but it’s not that constant and consistent messaging that all the literature on safety says it needs to be,” Lefsrud says. “Management commitment to safety is not just about taking companies from proactive to transformational. It’s also about making the leap from even vulnerable to reactive.”

If safety in Alberta is to continue to improve, it will also have to overcome the productivity-versus-safety prejudice. The least mature safety culture elements surveyed was production/cost versus safety. Too many people still believe that safety gets in the way of getting a job done even though a growing body of research links safety to high productivity.

Companies and industries with mature management systems are already aware of this connection. “There’s an oil company—which I can’t name—that has done in-house work demonstrating this relationship between safety, quality and productivity,” Lefsrud says. “Now you have to demonstrate this more broadly to the industry.”

Lefsrud says more academic research will help get this message out. She will be working with Aminah Robinson Fayek, a construction engineering and management professor at the U of A, on research into project management, competencies and productivity, which will also link to safety.

NEXT STEPS
One of most valuable insights from this survey is which companies responded and which didn’t.

There are a host of reasons why some companies didn’t respond, ranging from safety taking a low priority to a reluctance to spend time on a survey when a company already has an advanced in-house safety program. “But given that responding companies had better safety performance than the industry average suggests, the companies that didn’t respond are likely more vulnerable and reactive,” Lefsrud says.

“These companies are the ones that we need to reach the most. We know which ones didn’t respond, so the next step is, How do we reach those companies? How do we approach these pockets where it’s still about getting the job done fast as opposed to safe?” she says.

This insight will provide direction for COAA and its partners in safety—such as Occupational Health and Safety, the Workers’ Compensation Board, Enform and the Alberta Construction Safety Association—for its next steps in improving safety in the province.

So now that Alberta’s heavy industrial construction and maintenance industry knows where it stands, it can continue on the journey to safety maturity. Doing so will demonstrate Alberta’s ability to be a “good steward of its resources, people and the environment,” Lefsrud says.

“Safety isn’t sexy, glamorous or rah-rah, superhero stuff,” she says. “It’s a careful, effortful non-event. So the challenge is how to have it recognized as being more important.”

The research team, left to right: Lianne Lefsrud, Afrooz Farjoo, Leonardo Pennetta de Oliveira, Nafiseh Esmaeeli and Anuar Caldera