

WorkSafeBC occupational safety officer Mark Benoit and Coastal Craft safety officer Jeremy Berlinger survey the final stages of a boat build. While the worksite materials on the ground are integral to the job, those working above would be in danger of falling onto them without the guardrails.

Keeping workers protected from falls at any elevation

Boat building may not be the first industry you think of when you think of workers who need fall protection, but it is one of the many industries that needs to protect its workers from the hazard of injury from falling from heights both above and below 3 metres.

Coastal Craft Welded Aluminum Boats Ltd., is a small boat building firm just off the Sunshine Coast Highway in Gibsons. Owner Jeff Rhodes swears by the fall protection regulations, which help ensure the safety of his tradespeople as they weld, paint, and install cabinetry all while being as much as 6 metres off the floor. According to Rhodes, the regulations are helping to protect his business. “One fall-related accident that causes serious injury or death could be the demise of your company, both financially and culturally,” he says.

The fall protection regulations we have today were first introduced by WorkSafeBC in 1996, and were the first comprehensive fall protection regulations in Canada. In the two decades since, injuries due to falls from elevation have been cut nearly in half, across all industries from construction to manufacturing.

In the past year, the company introduced a new fall protection plan designed to cover the different kinds of dangers that arise from the unique work that they do. The new plan has helped worker morale, says Jeremy Berlinger, the firm’s safety officer. “It’s definitely given people a feeling of more assurance and comfort” while working on the boats. “In some cases it’s made it easier to work.”

Mark Benoit, a WorkSafeBC occupational safety officer whose region includes the Sunshine Coast, praises Coastal Craft’s commitment to improve its procedures. “They’ve changed the way they do business,” he says. “They took safety to heart.”

Addressing the risk of injury 1.2 metres off the ground

In an interesting twist, the transformation began when the company was cited for not being in compliance with safety regulations. Among the problems was fall protection.

“We were kind of stunned by that,” Berlinger recalls of the order issued by WorkSafeBC in 2015. “We weren’t aware that we weren’t complying.”

Coastal Craft thought it had been following the Occupational Health and Safety Regulation, which begins by stating that a fall protection system is required for work done anywhere in which a fall of 3 metres or more may occur. Since much of the boat building work happens about 1.2 metres off the ground, Rhodes and his team didn’t see fall protection as a concern.

But the company made an assumption that many other firms have made, explains Benoit. “A lot of people read the first line of the Regulation and that’s as far as they go. “The next lines in that section spell out additional requirements for fall protection. It’s needed if a fall from any height — even those less than 3 metres — could result in serious injury.”

There is also a hierarchy of fall protection choices available. Employers may not automatically revert to the use of fall protection harnesses if guardrails are a reasonably practicable alternative.

That scenario applied to Coastal Craft. And once the problem was pointed out, Rhodes took action. “He wanted it fixed and he wanted it fixed now,” says Berlinger.

The “fix” cost about \$40,000, and included engineering controls such as scaffolding, and hand railings specifically designed and made in the firm’s fabrication shop. Boats in construction are kept as

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—Jeremy Berlinger, safety officer for Coastal Craft



Coastal Craft painter's assistant, Nante Del Rosario, safely sands the top deck with the new guardrails installed.

low to the ground as possible. A safety consultant was hired to suggest improvements, Berlinger spent countless hours researching safety gear and processes — each of the three areas of the plant required its own application of fall protection procedures — and all staff were properly trained.

“Everyone now knows that the first thing they do when a boat moves into their area, is to get a railing on it,” Berlinger says with satisfaction. “Everybody’s bought in. They know what needs to be done and they know how to do it.”

Safety gear “second nature” for workers

Coastal Craft’s commitment to protecting workers is part of a larger trend that’s two decades old.

In 1996, WorkSafeBC introduced the country’s first comprehensive regulations designed to protect workers from falling from heights. Before then, fall protection rules weren’t specific and only talked about falls from heights over 3 metres. The new rules were a dramatic change, says Al Johnson, vice-president, Prevention Services for WorkSafeBC. “The general regulations became more comprehensive and somewhat prescriptive.”

The rules changed workplace behaviours, leading to a 47 percent decrease in claims due to falls from elevation over the last two decades, and cutting the rate of those types of claims — measured per 100 workers — by nearly two-thirds.

In the 20 years since the legislation was introduced, the safety attitude and outlook surrounding fall protection

has changed for the better, says Johnson. Like the workers at Coastal Craft who have made maintaining a railing around the boats they're building a regular part of their process, workers in other industries have also made fall protection just another necessary part of their work.

"Attitudes have changed," says Johnson. "There's a greater understanding of the dangers, and awareness of the need to wear a harness."

Dale MacDonald, a WorkSafeBC occupational safety officer, sees this shift in workplace culture every day as he inspects high-risk construction sites. For workers, "using fall protection gear has become second nature," he says.

Not only are they wearing it while on the job, but many also keep it on even when they're taking breaks. "You wouldn't have seen that 20 years ago."

Progress from manufacturers

When the fall protection regulations came into effect, they inspired manufacturers of safety gear to make major improvements in fall restraint and fall suppression equipment, says Ken Boucher, a former WorkSafeBC employee who helped craft the regulations that took effect May 1, 1996.

"The technology was extremely primitive" in the early 1990s, says Boucher, now the vice-president of Health, Safety and Environmental Protection for Ledcor Construction Limited. Fall restraint harnesses weren't even invented.

Today's gear is lighter, more comfortable, and ergonomically friendly. It's also effective. Just ask the worker on the Olympic Village construction site in Vancouver who, a few years ago, fell off a stepladder while hundreds of feet above ground. He tumbled over the edge of a balcony but "his fall protection caught him right away," MacDonald says. "It saved his life."

Johnson proudly acknowledges the impact WorkSafeBC's regulations have had on elevated workplaces but is quick to point out that reducing injuries depends on the efforts of many people. "It's really been a joint effort between labour, employers, and WorkSafeBC over the years."

"The young people understand the hazard. They've grown up with the messages about safety," says MacDonald. Getting through to workers is a matter of training and supervision, he adds. "If you train people properly it becomes part of their culture."



Coastal Craft fitter Tamas Mihalyi is protected by the guardrails as he installs the ship's deck lights.

That's exactly what has happened at Coastal Craft. Owner Rhodes says the investment in creating the safety-oriented culture that now permeates his plant will pay off by preventing injuries. "I do know that injured workers result in direct costs to the company and lower morale in the workplace that also results in lower productivity."

Today's focus is on ladder safety

Despite the progress, there's still work to do. Falls from elevated workplaces continue to cause a significant number of serious injuries and deaths.

"Falls from elevation continue to be a primary focus for us in 2016," says Johnson. "Ladders are the most significant issue."

In fact, improper use of ladders and stepladders remains one of the leading causes of injuries to B.C. construction workers. The statistics tell a grim story: Between 2012 and 2014, falls from ladders injured

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or killed 1,005 construction workers — an average of nearly one person per day.

In addition to the human cost, those falls bring a financial one as well, accounting for 35 percent of all claim costs. With that in mind, WorkSafeBC’s high-risk strategy for the construction sector aims to slash the rate of injuries caused by ladders.

To help all employers protect their workers at elevations, WorkSafeBC has launched programs and initiatives under its high-risk construction strategy that include:

- Inspections targeting sectors that make extensive use of ladders as a work platform

- Education (a variety of free materials are available at worksafebc.com)
- Outreach (WorkSafeBC staff speak at many conferences and seminars)
- Consultations with industry and other stakeholders
- Enforcement

No matter how it is delivered, the message will always be that the proper use of fall protection equipment — in addition to planning, supervision, and training — can reduce or eliminate the risk of death or serious injury. ☺



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