



Wise guys

When workplace risks demand safer alternatives, often the best and brightest ideas come from within.

Clockwise from above: Kevin Kelly, Brentwood Town Centre security manager, displays a kit to protect staff and customers from pepper spray exposure; Ventana Construction's electrical cord management system; the Gisborne Group's load-reduction device for lifting mobile outrigger pads.





By Helena Bryan

It happens all the time, on worksites everywhere: employees on the front lines of a jobsite notice a deficiency that puts them – or their colleagues – at risk. And rather than panic, or throw their hands up in the air, they go to work, coming up with a solution so simple, so straightforward, and so inexpensive; it's a spark of genius.

There's no magic involved in this approach, but there is a hint of wizardry: the notion that great ideas – those thrilling “eureka moments” that lead to great improvements – lay dormant in all of us, waiting for an opportunity to usher them forward.

In fact, look around any workplace and you're likely to spot at least one of these inventive, homegrown fixes that improve safety. Some are more obvious than others: customized equipment or gear; others are hidden in the form of new processes or systems. Either way, they reflect some pretty neat things about a workplace – resourcefulness, teamwork, and a healthy dose of safety-consciousness.

“These innovations mean somebody on the worksite has looked at a situation and said, ‘I can do this in a safer way,’” says Don Schouten, WorkSafeBC construction manager for Industry and Labour Services.

“Taking the initiative to improve safety, whether in a big or small way, means people are thinking about safety,” he says. “And that speaks to the culture. That level of workplace initiative is definitely worth encouraging.”

WorkSafeBC occupational safety officer Andrew Lim agrees. And while he encourages employers to consult with safety officers on their innovations, he's seen a lot of successes with grassroots solutions to safety problems. “We know the Regulation. But employees and employers know their industry better than anyone else. They know the challenges and nuances, and they're in the best position to know how use of a new system or device will play out on the floor.”

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*—Doniel Lorenz, safety coordinator
at Ventana Construction*

Equipment innovations — big and small

Just ask Preston Boomars, site superintendent for Burnaby-based Ventana Construction Corporation, which specializes in industrial, multi-unit residential, and recreational construction projects. Boomars and crew members recently came up with a crafty on-site solution to a problem common to construction sites with multiple trades. How, they all wondered, should they manage all those snaky extension cords: the ones that cost between \$60 and \$80 each, damage easily, and potentially zap workers with deadly electrical shocks if not handled with care, particularly in the rainy climes of B.C.'s West Coast?

“I've heard of people being killed by damaged cords that have run through water,” Boomars points out. “We were worried somebody was going to get seriously hurt.”

He and the crew developed an electrical cord management system to minimize the damage to cords. The system consists of two separate boards mounted vertically on either side of a portable power panel stand. Each board features two rows of holes through which cords can be looped and tagged for easy identification.

Boomars says 20 or so cords are typically plugged into the panel at one time. However, with the cords secured through the holes, yanking or pulling on them has no effect on the delicate plug area, or the electrical panel itself.

Not only does the new system extend the life of the cords, it reduces nuisance tripping – the kind of tripping that causes special circuit interruptors to cut off power because the interruptors sense a problem with the cords or tools. And most importantly, it reduces the chance of harm from electrical shocks.

The cord management system is just one part of a bigger effort to improve the efficiency and safety of the power panel itself. “The panel is the central hub for a construction site,” Boomars says. “So we mounted it off the ground on a plywood stand, painted the whole thing red, lit it, and put a cover on it to protect it from water and dripping concrete. We also located the air horn there, the eye washes, and a tool-charging area.”

Such simple, inexpensive, safety innovations are possible, even when the jobsite is rife with complicated, heavy machinery. Take industrial construction company, the Gisborne Group. Project rigging and hoisting crews at the Copper Mountain project devised a way to reduce the risks associated with moving heavy wooden crane pads. These are the pads used for leveling the ground underneath a crane’s four outriggers, before hoisting a load. The pads range in weight, from 22–54 kg (50–120 lbs.), and height, 0.9–1.5 m (3–5 ft.).

Before they devised a better system, crews used to have to manually heft the pads around dozens of times a day whenever

the cranes moved to different locations on site. But ironworkers Ben Whitman and Rick Pitt and crane operator Pat Lamoureux came up with an economical device for moving the pads short distances without having to lift them. Basically, the system secures the pads to the outriggers so that when they are lifted and the crane moves, the pads move too.

Gear upgrades — indoors and out

Construction workers aren’t the only innovators, of course. John Martyn, an arborist with a consulting tree care business based in Coquitlam, is constantly finding new ways to stay healthy and safe, particularly now that he’s 50, and more vulnerable to muscle and joint strains.

“In this business, we’re starting chainsaws all the time,” says the owner of JPM Tree Service. “I was told early on that in my early 50s, my wrists would start to go. If you lose your wrists, well, manual work is out. So I buy size small elbow tensors and wear them on my wrists.”

For further protection, Martyn wears an expandable waist belt and neoprene

sleeves on his knees. He also warms up for 10 to 15 minutes before starting work. “We’re industrial athletes,” he says. “And if our joints aren’t lubricated, we’ll definitely pay for it with a strain of some sort.”

Martyn also wears a full face mask when he’s chipping, which he says looks weird, but pays off in both productivity and safety. “When you’re operating the chipper, all these fine particulates bounce back at you and get into your lungs,” he says. “Or a branch can snap back and hit you in the eyes. With the mask on, I save my eyesight and my lungs. And my mask gives me the security and safety that allows me to work probably 20 percent faster.”

Kevin Kelly, security manager at Brentwood Town Centre, came up with an inexpensive pepper spray response kit and response protocol after noticing a trend in the use of pepper spray at other malls in the area during assaults or robberies. “We hadn’t had a pepper spray incident for two years,” Kelly says. “But we decided to be prepared, so as to better protect customers and our security officers.”

“If you’ve seen anyone hit by pepper



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spray,” says WorkSafeBC occupational safety officer Marty Glendinning, “you’d understand the need for such a kit. They go down like they’ve been hit with an axe.”

Kelly did some research and worked with Glendinning to develop the kit, which includes garbage bags for contaminated clothing, baby shampoo for soothing and drawing out chemicals from the skin, respirators, gloves, eye protection goggles, caution tape, and disposable blankets. He’s also made sure his team of security guards knows how to use the kit properly.

So what does it take to inspire employees to come up with similarly simple, economical solutions to safety challenges? Doniel Lorenz, safety coordinator at Ventana Construction, says it’s all about visibility. “I’m the face for safety and I regularly visit the sites and engage in a dialogue about safety. I make sure everyone knows: there are no bad ideas.”

It doesn’t hurt, either, if employees receive some formal recognition, says Dennis Brode, corporate safety director for the Gisborne Group. “Any time you can attach something concrete to the safety discussion, you’re ahead of the game.”

Each year, Brode encourages all Gisborne Group employees to think of new ideas for the annual Construction Workplace Health and Safety Innovation Awards. That awards program was the incentive for the crane pad lifting system, which brought them first place in 2010.

“Safety management systems only go so far,” Brode says. “Use the best resource you have for continually improving the worksite – your people.”

Calling all innovators!

A heavy-duty roller to ease back strains. A guideline for construction practices designed to protect the public. An improved fall protection system. What do these everyday – but ingenious – workplace safety innovations have in common?

The answer is; each of these devices or concepts involved front-line workers conquering the workplace risks with which they’re so intimately acquainted, every day. Each of these innovations cost relatively little to develop, and usually took advantage of materials or resources readily available on site. Each was easy to implement, with the support and encouragement of health-and-safety-conscious employers and supervisors.

Now we’d like to hear from you. As the high number of successful safety awards and recognition programs demonstrate, we know workers across the province are continually coming up with these kinds of simple, grassroots solutions to health and safety challenges. It’s an inspiration – and one we’d like to share with readers who are thinking along the same lines.

Have you or your team had a “eureka moment” recently – one that led to a safer process, protocol, or piece of gear or equipment?

If you have a workplace safety invention or idea that’s simple, inexpensive, homegrown, and non-commercial, please let us know via email at Dana.TyeRally@worksafebc.com. Ensure your submission describes the device or process in less than 100 words and includes the name of your workplace, along with your contact name, workplace title, phone number, and email address. We’ll pick the top five submissions from a range of industries and publish them in subsequent issues of *WorkSafe Magazine*. Thanks for sharing!



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