Drowning Protection Compliance Game Plan

Drowning is the third leading cause of unintentional deaths around the world, according to the World Health Organization, with an estimated 236,000 fatalities per year.

Many drowning victims are workers killed on the job. For that reason, failure to safeguard workers from drowning hazards can expose a company to the risk of crippling OHS penalties. Suncor recently learned that lesson the hard way. The Alberta energy sands company was fined $420,000 for the death of a 25-year worker who drowned when the bulldozer he was operating on top of thin ice crashed into a tailings pond. Another employer, Christina River Construction, was also fined $325,000 for the incident.

Here's a look at OHS drowning protection requirements and an 8-step game plan for complying with them.

Step 1. Perform Drowning Hazard Assessment

The first step is to have a qualified person identify and assess potential drowning hazards at your site. In general, OHS rules requiring employers to guard against drowning hazards pertain to workplaces on land where work is performed above or near water deep enough to drown a person. The requirements don't cover work aboard boats and ships. However,

that's beginning to change as some provinces adopt laws extending OHS lifejacket and personal flotation device (PFD) requirements to ships and boats.

Step 2: Try to Engineer Away Drowning Hazards

Canada OHS laws follow the hierarchy of controls approach to managing hazards, at the top of which is eliminating the hazard, such as by not requiring workers to work above or near water that poses a drowning hazard. If elimination isn't reasonably practicable, employers should use engineering controls, which in the context of drowning protection, would include installing guardrails, safety nets or other physical barriers or using fall protection systems to ensure that workers don't fall into the water.

Step 3: Ensure Workers Have and Use Required Lifejackets & PFDs

The basic form of protection against drowning is use of PPE, namely, lifejackets and PFDs. The employer is generally responsible for providing such equipment to all workers at risk of drowning at its own expense. Lifejackets and PFDs are especially imperative for workers who work alone or in isolation in locations where immediate rescue isn't possible. Federal and Nova Scotia law require employers to ensure lifejacket and PFD use by not only workers but also visitors and other persons granted access to the site that may be at risk of drowning. There are some important differences between lifejackets and PFDs:

'Lifejackets' are designed to turn a wearer's face from down to up to keep it out of the water, even when they're unconscious, so that they can breathe. Standard lifejackets in Canada must be orange, yellow or red, and have an attached whistle.

‘PFDs’ are designed for comfort and constant wear. They’re less bulky but also less buoyant, making it easier for wearers to roll on their back or face up using their arms and legs and helping them stay afloat without keeping them in such a position the way a lifejacket does. Unlike lifejackets, PFDs may provide a level of thermal protection to delay the onset of hypothermia if the water is cold or the wearer is in it for a prolonged period.

Inflatable PFDs: Some PFDs are fitted with a carbon dioxide cartridge designed to inflate when immersed in water, either automatically or by the wearer by blowing into the device or using a manual inflation device is a type of personal flotation device that either automatically inflates when immersed in water, or is inflated by the wearer using either an oral or manual inflation device.

Step 4: Ensure Lifejackets & PFDs Meet Required Standards

It’s important to choose the right lifejacket and/or PFD. First, ensure the device meets the required OHS standard(s). In most jurisdictions, the lifejacket or PFD must be approved by Transport Canada. But there are variations:

Jurisdiction	Required Standard for Lifejacket	Required Standard for PFD
Federal	Canadian General Standards Board Standard 65.7, Life Jackets, 2007 version, as it existed before withdrawal in November 2016, published on Government of Canada website publications.gc.ca	*PFD: Level 70 performance within meaning of UL Standard 12402-5, Personal flotation devices ‘ Part 5: *Buoyancy aids (level 50) ‘ Safety requirements, when tested in accordance with UL Standard 12402-9, Personal Flotation Devices ‘ Part 9: Test Methods
Alberta	Transport Canada, or agency approved by Transport Canada	Transport Canada, or agency approved by Transport Canada

Jurisdiction	Required Standard for Lifejacket	Required Standard for PFD
British Columbia	*CGSB Standard CAN/CGSB-65.7-M88, Lifejackets, Inherently Buoyant Type with minimum buoyancy of 93 N (21 lbs); *CGSB Standard 65-GP-14M, Lifejackets, Inherently Buoyant, Standard Type with minimum buoyancy of 125 N (28 lbs); or *British Safety Standard BS EN 396-1994, Lifejackets and Personal Buoyancy Aids – Lifejacket 150 N, automatically inflatable units with minimum buoyancy of 150 N (34 lbs)	CGSB Standard CAN/CGSB-65.11-M88, Personal Flotation Devices with minimum buoyancy of 69 N (15.5 lbs)
Manitoba	Not specified.	Transport Canada, or agency permitted by Transport Canada to approve such devices.
New Brunswick	Transport Canada or agency permitted by Transport Canada to approve it.	Transport Canada or agency permitted by Transport Canada to approve it.
Newfoundland	Canadian General Standards Board	Canadian General Standards Board

Jurisdiction	Required Standard for Lifejacket	Required Standard for PFD
Nova Scotia	Transport Canada, Canadian Coast Guard or US Coast Guard	Transport Canada, Canadian Coast Guard or US Coast Guard
Ontario	Not specified.	Not specified.
Prince Edward Island	Transport Canada, or agency permitted by Transport Canada to approve lifejackets.	Transport Canada, or agency permitted by Transport Canada to approve PFDs.
Qu□bec	Transport Canada or ISO Standard 12402; Must be approved by Transport Canada if used for navigation.	Transport Canada or ISO Standard 12402; Must be approved by Transport Canada if used for navigation.
Saskatchewan	Not specified	Not specified
Northwest Territories. Nunavut	Not specified	Not specified
Yukon	CGSB Standard 65.7-M88, Lifejackets, Inherently Buoyant Type	CGSB Standard B-65.11-M88, Personal Floatation Devices

Lifejackets and PFDs should also be bright yellow, orange or red and have a minimum of 200 sq cm (32 sq in) of white or silver retroreflective material fitted on surfaces that are normally above the water surface. In Qu□bec, they must also equipped with a locator device, such as a light or locator beacon, where the weather conditions or waves interfere with location in the water.

Step 5. Ensure Proper Use & Maintenance

of Lifejackets & PFDs

You're responsible for ensuring that workers properly use and maintain the drowning protection they're required to wear. So, establish clear safety rules and policies requiring that workers, among other things, to:

- Ensure that their lifejacket or PFD is comfortable and fits properly by trying on the device while wearing the clothes they'd have on when working;
- Follow the manufacturer's instructions for putting on the device and fastening the straps;
- Ensure that drowning protection doesn't create any safety hazards, for example, by interfering with the proper fit of a fall protection harness that the worker is required to use simultaneously while working above water;
- Read the manufacturer's instructions to ensure they know how the device works; and
- Inspect or allow a competent person to inspect their lifejacket or PFD before each use.

Step 6: Train Workers in Drowning Protection Rules

Every worker required to use a lifejacket or PFD should, before first use, receive training and instruction from a supervisor or other qualified person covering, at a minimum:

- How the device works;
- Why the worker has to wear it;
- Any limitations in the protection the device provides;
- How to properly use, maintain, inspect and store the equipment; and
- How to carry out the applicable safe work procedures for operations requiring use of the equipment.

Be sure to verify that workers understand and are capable of

applying their training and keep written records documenting the training provided, who furnished it and the date and time of training.

Step 7: Implement a Drowning Emergency Rescue Procedure

Develop and implement drowning emergency procedures to ensure swift and effective assistance and rescue and that account for:

- The temperature, depth and flow of the water;
- Water traffic or other conditions that might obstruct immediate rescue efforts;
- The distance to the rescue boat;
- The distance to reach the worker in the water;
- Any projections or objects beneath the surface;
- Means of communication;
- Any visibility issues;
- The time of day;
- Visibility;
- Any adverse weather conditions; and
- The required rescue equipment.

Step 8: Provide Required Emergency Rescue Equipment

Ensure you provide the necessary rescue equipment at any site where workers are exposed to drowning hazards including, at a minimum:

- An alarm or notification system to signal the need for rescue;
- A rescue boat that is motorized if the water is likely to be rough or swift; and
- A buoyant apparatus attached to a nylon rope of at least 9 mm in diameter and 15 mm in length that’s equipped

with a life ring or buoy attached to 30 metres of rope and a boat hook.