

Health and Safety for Craft Breweries and Distilleries



WORK SAFE BC

About WorkSafeBC

At WorkSafeBC, we're dedicated to promoting safe and healthy workplaces across B.C. We partner with workers and employers to save lives and prevent injury, disease, and disability. When work-related injuries or diseases occur, we provide compensation and support injured workers in their recovery, rehabilitation, and safe return to work. We also provide no-fault insurance and work diligently to sustain our workers' compensation system for today and future generations. We're honoured to serve the workers and employers in our province.

Prevention Information Line

We provide information and assistance with health and safety issues in the workplace.

Call the information line 24 hours a day, 7 days a week to report unsafe working conditions, a serious incident, or a major chemical release. Your call can be made anonymously. We can provide assistance in almost any language.

If you have questions about workplace health and safety or the Occupational Health and Safety Regulation, call during our office hours (8:05 a.m. to 4:30 p.m.) to speak to a WorkSafeBC officer.

If you're in the Lower Mainland, call 604.276.3100. Elsewhere in Canada, call toll-free at 1.888.621.7233 (621.SAFE).

Health and Safety for Craft Breweries and Distilleries



Health and safety resources

You can find our health and safety resources on worksafebc.com, and many of them can be ordered from the WorkSafeBC Store at worksafebcstore.com.

In addition to books, you'll find other types of resources at the WorkSafeBC Store, including DVDs, posters, and brochures. If you have any questions about placing an order online, please contact a customer service representative at 604.232.9704 or toll-free at 1.866.319.9704.

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Introduction

Health and safety is good business. A commitment to health and safety is one of the best ways for a craft brewery or distillery to protect its greatest resource — its people. Such a commitment helps accomplish the following:

- Create a better work environment
- Boost morale
- Help retain good workers
- Increase worker participation in decision making
- Improve productivity and enhance customer service

Workplace incidents can have a tremendous impact on injured workers, co-workers, and families. Incidents can result in pain and suffering, disability, stress, and loss or change of employment. For a craft brewery or distillery, incidents can also be financially devastating. Direct costs may include claims costs, increased insurance premiums, and fines. Indirect costs may include damage to property, the cost of hiring and training temporary employees, and production or service interruption leading to loss of customers.

This guide does not replace the Occupational Health and Safety Regulation

This guide is meant to give you a basic understanding of your health and safety requirements, but you should also refer to the Occupational Health and Safety Regulation to be sure you're meeting your legal responsibilities for workplace health and safety. You can find a searchable version of the Regulation and its accompanying Guidelines at [worksafebc.com/law-policy](https://www.worksafebc.com/law-policy).

About this guide

Who should use this guide

This guide is intended for craft breweries and distilleries. You'll find this guide useful whether you're an owner, employer, manager, supervisor, or worker.

Purpose of this guide

This guide contains health and safety information for the craft brewing and distilling industry. It will help you prevent injuries and other incidents by describing the following:

- Specific hazards faced by workers in craft breweries and distilleries
- How to eliminate these hazards or control their impact
- How to develop specific procedures for doing tasks safely
- How to deal with workplace incidents

Note: This guide is meant as a general resource only. Not all workplace hazards are covered in these pages.

How this guide is organized

This guide describes the components that will form the backbone of your occupational health and safety program. Throughout this guide you'll find references that you can consult for more information. For a list of other useful resources available from WorkSafeBC, see pages 60–61.

Reference	What does it refer to?	Where do I look for more information?
Publication	Health and safety guide, booklet, or poster	Go to worksafebc.com/forms-resources and search for the publication name.
Regulation (or Act)	Occupational Health and Safety Regulation (or <i>Workers Compensation Act</i>)	Go to worksafebc.com/law-policy .
Website	Online information or tool	Go to the website or webpage listed.
Forms and checklists	Sample materials you can adapt for your health and safety program	See the WorkSafeBC publication <i>Forms and Checklists for Craft Breweries and Distilleries</i> .
Tip	Suggestion to help you improve health and safety in your workplace	—

Responsibilities

Reference

Act

For more information, refer to sections 115 to 124, General duties of employers, workers and others.

Everyone has a role to play when it comes to health and safety. The following sections provide a summary of the duties of employers, supervisors, and workers.

Employers

- Ensure the health and safety of your workers and any other people on your worksite.
- Correct hazardous workplace conditions as much as possible.
- Inform your workers about any remaining hazards.
- Make copies of the Regulation and the Act available to workers.
- Ensure that your workers comply with the requirements of the Regulation and the Act.
- Ensure that your workers know their rights and responsibilities under the Regulation and that they comply with them.
- Establish an occupational health and safety program.
- Provide and maintain protective devices, equipment, and clothing. Ensure that workers use them.
- Provide your workers with education, supervision, and training specific to your workplace.
- Consult and co-operate with your joint health and safety committee (or worker health and safety representative, if applicable).
- Co-operate with WorkSafeBC and its officers.

Due diligence

Due diligence means taking all reasonable care to protect the well-being of employees (if you're an owner or employer) and co-workers (if you're a worker). To meet the standard of due diligence, you must take all reasonable precautions in the circumstances to carry out your work and your health and safety responsibilities.

One way that employers can demonstrate due diligence is by implementing a health and safety program. Workers can demonstrate due diligence by following the requirements of that program — for example, by following safe work procedures and wearing personal protective equipment (PPE). Demonstrating due diligence will help ensure your safety and the safety of those around you. Due diligence can also be used to show your efforts to meet legal requirements if there are allegations of violations or the possibility of prosecution and fines.

Tip

Keep all the documents that show what you've done to improve workplace safety and demonstrate due diligence. Documentation may include training, inspection, maintenance, meeting, and incident records.

Supervisors

- Ensure the health and safety of workers under your direct supervision.
- Know the requirements of the Regulation that apply to the work you're supervising.
- Ensure that workers under your direct supervision are informed about all hazards in the workplace and that they comply with the Regulation.
- Consult and co-operate with the joint health and safety committee (or worker health and safety representative, if applicable).
- Co-operate with WorkSafeBC and its officers.

Workers

- Take reasonable care to protect your health and safety and that of others who may be affected by your actions.
- Comply with the Regulation and other legal requirements.
- Follow established safe work procedures.
- Use any required PPE.

- Refrain from horseplay or similar conduct that may endanger others.
- Don't work if you're impaired (for example, by drugs or alcohol).
- Report accidents and other incidents (such as near misses) to your supervisor.
- Report to your supervisor or employer any of the following:
 - A hazard that might endanger others
 - A problem with protective equipment or clothing
 - A violation of the Regulation or other legal requirements
- Co-operate with your joint health and safety committee (or worker health and safety representative, if applicable).
- Co-operate with WorkSafeBC and its officers.

Refuse and report unsafe work

Workers have the right to refuse unsafe work. In fact, you must not carry out (or cause to be carried out) any task you have reasonable cause to believe would create an undue hazard to the health and safety of any person.

If you discover an unsafe condition or believe you're expected to perform an unsafe act, you must immediately report it to a supervisor or your employer. A supervisor or employer who receives such a report must investigate the matter immediately. If there is an unsafe condition, it must be corrected without delay.

Sometimes a supervisor or employer may not agree that a task is dangerous. In this case, sections 3.12 and 3.13 of the Regulation describe the steps to be followed.

Workers must not be disciplined for refusing to perform tasks they have reasonable cause to believe are dangerous. You may be assigned other work at no loss in pay while the reported unsafe condition is being investigated.

Occupational health and safety programs

References

Refer to the following for more information.

Regulation

Sections 3.1 to 3.3, Occupational health and safety programs

Publication

How to Implement a Formal Occupational Health and Safety Program

Forms and checklists

- Sample Health and Safety Program for Craft Breweries and Distilleries
- Annual Review of Health and Safety Program

Health and safety is a legal requirement. All businesses, including craft breweries and distilleries, must have an occupational health and safety program to prevent workplace injury and disease. Health and safety programs must meet certain standards, and you must exercise due diligence in taking steps to meet those standards.

There are two general types of programs: formal and less formal (or informal). Formal programs are required in craft breweries and distilleries with 20 or more workers. Less formal programs are required for operations with fewer than 20 workers. When calculating the number of workers in your workplace, be sure to include all the staff, including sales, delivery, and front-of-house workers.

This book focuses on a less formal program. The scope of the program depends on the hazards at your particular workplace. For a sample health and safety program that you can use as a starting point for your own program, see the WorkSafeBC publication [Forms and Checklists for Craft Breweries and Distilleries](#). Don't just copy the sample, though. Your health and safety program should be unique and specific to your craft brewery or distillery.

Components of a health and safety program

A health and safety program includes the following components, which will help prevent incidents and help deal with any incidents that do occur:

- Managing health and safety risks (hazard identification and risk control) — Determine which hazards are present in the workplace and take steps to eliminate or control them.
- Safe work procedures — Describe in writing how to carry out specific tasks safely.
- Orientation, education, training, and supervision — Prepare workers and contractors for the job, and make sure they continue to work safely. This is particularly important for young workers and new workers.
- Workplace inspections — Identify workplace hazards so they can be eliminated or controlled.

Tip

A health and safety program isn't just a paper exercise. In order for a program to be successful, it must be incorporated into your company's day-to-day activities.

- Incident investigation — Find out why an accident or injury occurred so the causes can be corrected.
- Health and safety meetings — Ensure ongoing communication between the employer, supervisors, and workers regarding health and safety.
- First aid and emergency response — Determine what level of first aid is required for your workplace. Make sure everyone knows how to deal with injuries on the job and what to do in an emergency, such as a fire, explosion, chemical spill, or natural disaster.
- Records and statistics — Maintain documentation to help identify trends and to record inspections, equipment maintenance, and confined space programs.

Annual program review

Once you've developed processes for worker health and safety, it's important to review them at least once a year to make sure they continue to address current concerns effectively and are up to date with regulatory and organizational changes. See the "Annual Review of Health and Safety Program" in the WorkSafeBC publication *Forms and Checklists for Craft Breweries and Distilleries*.

Managing health and safety risks

Reference

Website

For more information on hazard identification, risk assessment, and risk control, go to [worksafebc.com](https://www.worksafebc.com) and search for “managing risk.”

Tip

Front-line workers often know and understand the hazards associated with their jobs. This makes them a good source for ideas on how to deal with specific hazards.

To manage health and safety risks in your brewery or distillery, think about what could harm your workers. Then determine whether you’re taking reasonable steps to prevent that from happening. There are three steps to managing health and safety risks:

1. Identify the hazards.
2. Assess the risks.
3. Control the risks.

1. Identifying hazards

You can prevent most workplace incidents by identifying hazards and taking steps to control the risks. Identifying hazards starts with a workplace inspection. This includes walking around your site and doing the following:

- Observe how workers are doing their tasks.
- Assess the equipment, materials, and tools workers are using. Consider how workers are using them.
- Analyze the design, layout, and conditions of the work areas. Design includes equipment and tools. Layout is how the equipment is arranged. Conditions include humidity, gas concentrations, lighting, and temperature.

Some hazards won’t be visible or easy to identify without the support of an experienced person. Your hazard identification team should include people with enough experience and knowledge to identify hazards.

2. Assessing risks

Once you’ve identified hazards, the next step is to assess the risks associated with them. A risk assessment will help you prioritize hazards so you know which ones should be dealt with immediately and which ones can be dealt with later. When assessing risks, try to determine how likely an incident is and how serious it would be.

A. Determine the probability of an incident

How likely is it that the hazardous condition or situation will result in an incident?

- Rare — Could happen, but probably never will
- Unlikely — Could happen, but in very few instances

- Moderate — Could happen occasionally
- Likely — Could happen frequently
- Very likely — Could happen almost certainly

Consider the following:

- Frequency (number of times) of a work activity when working near a hazard
- Severity (degree of impact) of an undesirable event, such as an injury or equipment damage or loss
- Number of people exposed and the duration of exposure
- Training, skills, and experience of workers performing the task
- Presence or absence of qualified supervision
- Position of the hazard relative to operators and other hazards
- Worker characteristics, such as age, vision, and hearing

B. Determine the potential impact of an incident

If an incident occurs, how serious will it be?

- Minor — First aid, but no time off work
- Moderate — Medical treatment and time away from work may be required
- Major — Serious bodily injury
- Extreme — Death or permanent disability

Consider the following:

- The potential for a chain reaction (where a hazard develops into a more dangerous situation)
- Proximity of workers to the hazard
- Quantity of a chemical being used
- Size of equipment, forces, temperature, and energy level
- Emergency response preparedness
- Employees working alone

C. Assign a risk rating to the hazard

Once you've determined the probability and impact of a potential incident, use the following risk assessment rating matrix to assign a rating to the hazard. Find the intersection between the row for the applicable Probability level and the Impact column to determine the risk rating.

Before using the matrix, make sure you've done a thorough assessment to ensure that you understand all aspects of the hazard, including all tasks and work associated with the hazard. If you're considering more than one hazard, the matrix rating system will help you prioritize the hazards.

Risk assessment rating matrix

		Impact			
		Minor	Moderate	Major	Extreme
Probability	Rare	Low	Low	Medium	Medium
	Unlikely	Low	Medium	Medium	Medium
	Moderate	Medium	Medium	Medium	High
	Likely	Medium	Medium	High	High
	Very Likely	Medium	High	High	High

Rating	Action
Low	This hazard may not need immediate attention.
Medium*	Do something about this hazard as soon as possible.
High	Do something about this hazard immediately.

* Don't underestimate "medium" consequences. They could be very important — give them serious consideration.

Examples of risk levels

The following are some examples of how risk levels could be defined for typical tasks in a brewery or distillery:

- **Handling cardboard boxes on a packing line** — This could be a low-risk activity if workers use safe lifting techniques and wear appropriate gloves. The impact is minor to moderate, and the probability of injury when using proper PPE and safe lifting techniques is rare.
- **Lifting a 23 kg (50 lb.) grain bag** — This could be a medium-risk activity if the worker uses safe lifting techniques. The impact is moderate to major, and the probability of injury is unlikely to moderate. The best way to reduce the risk is to use a mechanical aid to lift the bags.
- **Purging a fermentation tank with no ventilation system** — This could be a high-risk activity. The carbon dioxide (CO₂) released from the tank could have a major or extreme impact, and adverse health effects are likely to occur when there is no ventilation.

3. Controlling risks

Once you've identified a hazard and assessed the risks associated with it, you need to find ways to control the risks. The best form of risk control is to eliminate the hazard entirely, if possible. If that's unrealistic, control risks as much as possible by using other control measures. Address the hazards that have the highest risk first.

Improving health and safety doesn't have to be costly. For example, you can help prevent potentially serious vehicle incidents simply by installing a mirror on a blind corner of your worksite.

Hierarchy of controls

Some types of controls are more effective than others, although it may not always be practicable to use the more effective solution. Whenever possible, though, you must implement controls in the following order:

- A. Elimination or substitution
- B. Engineering controls
- C. Administrative controls
- D. Personal protective equipment

A. Elimination or substitution

Whenever possible, eliminate the hazard so there's no risk of injury. If you can't eliminate the hazard, substitute a safer material or process. For example, avoid using diatomaceous earth as a filtering agent, or use cleaning-in-place (CIP) systems so workers don't have to enter tanks regularly.

B. Engineering controls

Consider physical changes to the work environment, equipment, or materials that will help minimize worker exposure to hazards. Examples of engineering controls include installing protected catwalks or work platforms to access tank tops and installing guards for grain augers and mills.

C. Administrative controls

Consider changes to the way people work, such as task rotation or scheduling regular breaks. Administrative controls include training, supervision, and safe work procedures. Your orientation and training program will ensure your administrative controls can be sustained over time. Examples of administrative controls include

using warning labels at tank entry points for confined spaces and implementing a job-rotation schedule for a manual-packing line so workers aren't doing the same task for an entire shift.

D. Personal protective equipment

PPE is considered the least effective option because it doesn't keep workers away from the hazard and is only effective if used properly. However, sometimes it's the only available option. Workers may need to use PPE to protect against a hazard even when other controls are already in place. An example of PPE in breweries is wearing well-fitting, protective, non-slip footwear.

Monitoring control measures

Protecting employees requires ongoing effort. You should monitor your risk controls and improve ineffective controls. Consider the following:

- Conduct regular safety inspections (see pages 41–44). This will help you track workers' exposure to hazards and detect new hazards that may be uncontrolled.
- Organize a joint health and safety committee (see page 49) and hold monthly meetings to discuss health and safety issues. The committee should also review the effectiveness of your health and safety program regularly.
- Deal with safety issues without delay.

Recording your findings

It's a good idea to document the findings of your risk assessment. This includes noting the hazards, how people might be harmed by them, and what risk controls are in place. Your documentation doesn't need to be complicated to help you communicate and manage risks in your workplace.

Common hazards in craft breweries and distilleries

Breweries and distilleries can be hazardous places to work. Potential hazards include electricity, packaging machines, lift trucks, cleaning chemicals, and gases, such as oxygen and CO₂. Brew houses can be especially hazardous because they have heated vessels for mashing and boiling wort, hot water, and moving parts in machinery, such as rakes in the lauter tun.

This section (pages 13–34) describes some common hazards in craft breweries and distilleries and how to control the risks associated with these hazards.

Lifting, pushing, pulling, or carrying items

Hazard

Most of the injuries in craft breweries and distilleries result from lifting, pushing, pulling, or carrying items that are heavy or awkward, such as grain bags, spent grains, hoses, kegs, and cases of product.

Keg handling accounts for most of the overexertion hazards in breweries. A full 50 L beer keg typically weighs about 63 kg (140 lb.). The risk of injury is high when lifting, lowering, or carrying full kegs without mechanical aids.

Risk control

Reduce the risk of injury by following these guidelines:

- Provide mechanical aids for lifting heavy items. Mechanical devices, such as dollies and keg lifts, are available with lifting mechanisms specifically designed to raise and lower heavy items. Some equipment modifications may need approval from the manufacturer or a professional engineer.
- Manage stock levels and design or modify storage areas to avoid lifting, lowering, or carrying heavy items.
- Organize storage areas by weight. Store heavier items between knee and chest levels to minimize lifting.

If you can't provide mechanical aids, develop safe work practices that call for heavy items to be rolled, pushed, pulled, or slid to reduce physical demands. Use the following safe lifting techniques:

- Place your feet apart for good balance.
- Bend your knees.

- Keep the load close to the centre of your body.
- Use smooth, gradual motions.
- Avoid twisting your back.
- Take micro-breaks.
- Rotate positions regularly, if possible.



Use mechanical aids to handle beer kegs, if possible.

References

Publications

Refer to the following for more information:

- *Understanding the Risks of Musculoskeletal Injury (MSI): An Educational Guide for Workers on Sprains, Strains, and other MSIs*
- *Preventing Musculoskeletal Injury (MSI): A Guide for Employers and Joint Committees*
- *Back Talk: An Owner's Manual for Backs*
- *Your Retail Business: Preventing Back Injuries (poster)*

Work posture and repetitive movements

Hazard

Sprains and strains can result from awkward work postures, such as bending down, reaching overhead, or twisting while handling items. Repetitive-motion tasks can also cause sprains and strains — for example, packing bottles or cans, palletizing cases, and moving kegs.

Risk control

Reduce the risk of injury by following these guidelines:

- Set up workstations to reduce awkward work postures. For example, palletizing platforms should have adjustable heights so workers can work at different heights and avoid bending over when lifting boxes or cases.

- Implement task rotation so workers perform various tasks throughout the day.
- Include breaks and stretch periods in the work schedule to allow workers to recover.
- Use safe lifting techniques.

Slippery surfaces

Hazard

Slippery surfaces, such as wet floors from yeast, beer, water, or chemical spills, are a major cause of injuries in craft breweries and distilleries. These hazards can result in serious injuries, such as back sprains and bone fractures.

References

Regulation

Refer to the following for more information:

- Section 4.39, Slipping and tripping hazards
- Section 4.40, Wet floors

Risk control

Reduce the risk of injury by following these guidelines:

- Minimize wet surfaces by controlling humidity inside the brew house and repairing leaks as soon as they're detected.
- Design or rearrange process equipment and drains so the floor isn't part of the drainage system. Pipe discharges as close as possible to drains.
- Perform housekeeping inspections and deal with issues as soon as possible.
- Wear well-fitting, protective, non-slip footwear.
- Clean floors regularly.
- Clean up spills immediately.
- Post warning signs around spills or wet floors.
- Use dams around areas where spills or leaks are common to prevent liquid from entering walkways.
- Use rubber mats in areas where the floors are constantly wet.
- Install textured flooring, if possible.

Working at heights

Hazard

A fall from any height can be dangerous. Employers must ensure that a fall protection system is used if workers could fall from a height of 3 m (10 ft.) or more, or where a fall from a lesser height could result in serious injury. Falls from heights can result in serious injuries, including fractures, contusions, abrasions, and head and spinal injuries. High-risk activities at heights include tank inspections, tank cleaning, and adding ingredients from the top of the tank.

References

Refer to the following for more information.

Regulation

Part 11, Fall protection

Publications

- *Fall Protection* (web book)
- *Written Site-Specific Fall Protection Plan* (toolbox meeting guide)
- *Construction Safety series* (posters)

Unsecured tools and materials can also fall from heights and strike people working below.

Risk control

Reduce the risk of falls by following these guidelines:

- Try to eliminate tasks or modify them so workers can do them from below. If possible, add dry ingredients using pneumatic conveyance, recirculation systems, platform ladders, or scissor lifts. If workers still need to climb to the top of tanks, they should use platform ladders or scissor lifts.
- Install protected work platforms, catwalks, and staircases, if possible. Platforms and catwalks should have guardrails and toeboards to prevent tools and materials from falling.
- Where required, make sure workers use personal fall protection, such as fall restraint or fall arrest systems. Make sure your workers are trained on how to use the fall protection system and its limitations.



Platform ladders allow workers to perform tasks safely at the top of tanks.

Ladders

Hazard

Falls from elevation can happen when using ladders, including extension or straight ladders, platform ladders, stepladders, and stepstools. Ladders are commonly used in craft brewing or distilling for cleaning tanks, inspections, getting materials from storage, and adding ingredients.

References

Publications

Refer to the following for more information:

- *Construction Safety series (posters)*
- *Your Retail Business: Preventing Falls from Ladders (poster)*

Risk control

Reduce the risk of injury by following these guidelines:

- Use the right ladder for the job. Make sure it has the proper reach and weight capacity, and that it meets the standard required for the workplace.
- Use a ladder that has slip-resistant feet. Set it on a firm surface that is flat and even.
- Inspect ladders before every use. Check for defects and damage, such as bent or broken rungs, or split side rails.
- If possible, use a working platform instead of a ladder.
- Don't carry heavy or awkward objects up or down ladders.
- Ensure that rungs or steps are clean and dry before use.
- When climbing, face the ladder and maintain three-point contact at all times (one foot and two hands on the ladder, or one hand and two feet).
- Don't stand on the top two rungs or steps of any ladder.
- If using an extension or straight ladder, extend the top of the ladder at least 1 m (3 ft.) above the edge of the landing. Set the ladder with a slope of four vertical to one horizontal (i.e., for every 4 ft. of height, the ladder should be 1 ft. out from the base of the structure).
- When using a ladder in a passageway or near a doorway, ensure that warning signs are in place for pedestrian traffic. Lock doors if working nearby.
- Get down from the ladder to move it. Don't try to "hop" it into place.
- Store ladders in a designated secure location.

Cluttered areas

Hazard

Clutter and obstacles on walkways, stairs, and platforms can cause falls that may result in a sprain, fracture, or even a head injury. Clutter and obstacles include hoses, spools, pumps, buckets, or pallets.

Risk control

Reduce the risk of injury by following these guidelines:

- Perform regular housekeeping audits of all areas at the brewery or distillery. Deal with any issues immediately.
- Keep housekeeping audit records to help find trends and root causes for recurrent issues. You can also use these records to prove due diligence.
- Use signs to draw attention to hoses on the ground, especially in high-traffic areas. Restrict access to areas where cleaning-in-place (CIP) is in process, if possible.
- Select the appropriate length hose for the job to avoid excess hose. Use the minimum length needed to connect tanks.
- Keep walkways and work areas clear of tools, hoses, boxes, and other clutter.
- Coil or hang hoses safely in designated areas off the floor (for example, on a rack) when not in use.
- Be sure you can see where you're going when carrying large items.
- Watch for hoses. If you're moving hoses, warn nearby workers.



Restrict access to areas where hoses are on the ground.

Confined spaces

Hazard

A confined space is an enclosed or partially enclosed area that is big enough for a worker to enter. It's not intended for human occupancy and may have a restricted entrance or exit. Confined spaces can be hazardous because of oxygen deficiency or the presence of gases, such as CO₂ or nitrogen. Even just putting your head inside a confined space is considered a confined space entry and can be dangerous.

Confined spaces in craft breweries and distilleries include the following:

- Trailers used for fresh or spent grains
- Grain bins and silos
- Process tanks (for water, beer, yeast, and cleaning chemicals)
- Brewing equipment, such as mash tuns, lauter tuns, kettles, and whirlpools
- Grain-dust collectors

Risk control

Use cleaning-in-place (CIP) systems as much as possible to avoid the need to enter a confined space. Ensure that equipment and tanks are designed and built to eliminate or minimize the need for internal manual cleaning. Use an inspection mirror to inspect inside the confined space without putting your head into its opening. Don't put your head near the opening of a tank or vessel unless you are certain that the space has been cleaned beforehand.

Post warning signs at the entry points of all confined spaces.

If workers are not allowed to enter a confined space, make sure the signs state that and workers know they aren't allowed to enter.

If you need to enter a confined space, get a qualified person to help develop and implement a written confined space entry program for your workplace. Your program must include the following:

- Assign responsibility for administration of the program to someone who is trained to manage it.
- Identify and develop an inventory of all confined spaces.
- Ensure that all workers entering a confined space are trained to do so. This includes training in rescue procedures.

References

Refer to the following for more information.

Regulation

Section 9.11,
Qualifications (for hazard assessments and work procedures)

Publications

- *Hazards of Confined Spaces for Food and Beverage Industries*
- *Management of Confined Spaces in Agriculture: A Handbook for Workers*
- *Confined Space Entry Program: A Reference Manual*

Employers must ensure there are safe work procedures for entry into and work in confined spaces. You'll need a qualified person to assess the hazards of all confined spaces and to help you develop a confined space entry procedure. The procedure should address the following items:

- Lock out material-conveyance equipment that transports material to or from the space if the material could present a hazard.
- Ventilate the space with clean respirable air using appropriate mechanical ventilation equipment. Most deaths in confined spaces result from oxygen deficiency or exposure to toxic gases.
- Verify precautions and test the atmosphere with appropriate gas-testing equipment before entry.
- Clean, purge, or vent the atmosphere, as appropriate.
- Use standby workers to monitor the well-being of workers entering the confined space.
- Ensure the area around fermentation tanks is free from hazardous levels of CO₂.
- Use gas-testing equipment to monitor CO₂ and oxygen levels when workers are inside the tank.

Employers should also develop rescue procedures that specify the following:

- How to summon in-house rescuers or third-party rescuers, such as the local fire department
- Coordination of rescue activities
- A procedure for performing the rescue
- Rescue equipment and PPE



Even just putting your head inside a confined space is considered a confined space entry.

Carbon dioxide (CO₂)

Hazard

The fermentation process for beer or liquor produces CO₂ gas. Breathing in high concentrations of CO₂ can cause symptoms such as headache, dizziness, confusion, or loss of consciousness. Workers may be exposed to high CO₂ concentrations when purging tanks or working in areas where CO₂ is leaking from cylinders, pipes, or tanks — for example, in fermentation cellars, coolers, filtration and carbonation areas, gas-storage areas, or packing lines.

During fermentation, a 12 hL (10-barrel) batch of average-strength beer produces about 45 kg (100 lb.) of CO₂. This amount of CO₂ can be hazardous if released inside a small or poorly ventilated area. As your craft brewery or distillery expands its production capacity, you need to expand your ventilation system to accommodate the increased amount of CO₂ produced. The risk of exposure depends on your cellaring practices, production schedule, and space configuration.

References

Refer to the following for more information.

Regulation

- Section 5.53(3), Workplace monitoring
- Section 5.54, Exposure control plan

Publication

Carbon Dioxide Exposure in Craft Brewing
(risk advisory)

Risk control

Reduce the risk of exposure by following these guidelines:

- Install a CO₂ monitor to warn workers if CO₂ levels get too high. Train workers on what to do if the monitor sounds an alarm.
- Develop and implement an exposure control plan. You may need help from a qualified occupational hygienist who has the knowledge and experience to do this.
- Inspect valves, hoses, and tanks for leaks. Deal with any issues immediately.
- Make sure there's enough ventilation before entering a work area. Install fan interlocks, lights, or audible alarms to alert workers when the ventilation system is down.
- Have an emergency plan to rescue workers who are overcome by CO₂. Specify how you'll ventilate areas in an emergency. If confined space rescue may be necessary, coordinate with your local fire department or a third-party rescue services supplier.

Steam, boiling liquids, and hot surfaces

Hazard

Thermal burns are the second-most frequent injury in craft breweries and distilleries. Workers typically burn themselves through contact with substances, such as steam, hot wort, or hot water, or by touching hot metal surfaces, such as tanks, steam pipes, or process lines during product transfer or cleaning-in-place (CIP).

Reference

Website

Burns

For more information, search for “burns” on [worksafebc.com](https://www.worksafebc.com).

Risk control

Reduce the risk of injury by following these guidelines:

- Use personal protective equipment and clothing, such as long cotton pants, long-sleeved shirts, temperature-resistant gloves, rubber aprons, and face shields. Providing workers with long-sleeved shirts that have your company’s brand helps encourage the use of appropriate protective clothing.
- Ensure hoses containing steam and hot liquids have appropriate fittings and are securely tightened. Never blow steam through a hose that isn’t properly secured at both ends.
- Don’t open steam pipes without first locking out and purging the water and steam from the boiler. Boilers can release scalding water or steam that’s barely visible but can cause third-degree burns instantly.
- Identify areas where hot substances could spill, and keep out of the splash zone.
- Install boil-over protection systems in the brew kettle, if possible. Keep a water hose nearby to calm an overexcited boil. If possible, add antifoaming agents, such as a sufficient quantity of hops, to prevent overflow while boiling.
- Consider adding insulation around hot surfaces. Removable and washable insulation blankets are available that are both food grade and chemical resistant.

Hazardous chemicals

Hazard

Many chemicals used in breweries and distilleries, such as cleaning solvents and sanitizing chemicals, can cause conditions ranging from minor skin irritation to serious injury or disease. All B.C. workplaces that use hazardous products are required to follow the Workplace Hazardous Materials Information System (WHMIS). The system uses labels and safety data sheets (SDSs) to provide specific information on handling, storing, and disposing of hazardous products. Workers must be trained in WHMIS 2015 and informed of any hazardous products they’re expected to work with.

Risk control

Reduce the risk of exposure by following these guidelines:

- Get SDSs for all the chemicals used in your workplace, including chemicals used at the quality assurance laboratory. Suppliers should provide SDSs with chemical products. If you don’t have an SDS for a product, look for the supplier’s name on the label and ask them for one.

References

Refer to the following for more information.

Regulation

Part 5, Chemical agents and biological agents

Publications

- *WHMIS 2015: At Work*
- *WHMIS 2015: The Basics* (available in English, French, Punjabi, Korean, Chinese simplified, Chinese traditional, Vietnamese, and Spanish)

Website

WHMIS information

Search for “WHMIS 2015” on worksafebc.com.

- Read labels and SDSs for hazardous products. Follow safe work procedures.
- Keep SDSs readily available in a binder.
- Get updated SDSs for products every three years.
- Ensure that containers have proper labels identifying the contents. This also applies to transfer containers, such as buckets, spray bottles, and carboys, if they’re used for multiple shifts.
- Store chemicals in a properly ventilated, secured area. Post warning signs.
- Ensure only compatible chemicals are stored close to one other. Acids and bases should be stored in separate locations to prevent mixing in case of a spill.
- Use PPE (for example, clothing, rubber gloves, goggles, and face shields) as recommended by the manufacturer’s SDS and required by safe work procedures.
- Before removing gloves, wash them under water. Wash your hands after removing the gloves.
- Work in an adequately ventilated area with approved fire protection.
- If needed, install eyewash and shower stations close to your chemical storage areas.
- Ensure hose fittings and connections are securely fastened. Bad connections can result in exposure to hazardous substances, such as caustic, hot water, or compressed air.

Tip

If a liquid, powder, or aerosol chemical splashes into your eyes, flush them with lukewarm potable water or an isotonic-saline flushing solution for at least 15 minutes. Hold your eyelids open while doing so.



Get SDSs for all the chemicals in your workplace.

Flammable chemicals

Hazard

Two major hazards in craft distilling or making flavoured alcoholic beverages are fire and explosion. Fire can occur when vapours from flammable organic compounds, such as ethanol (alcohol), are released. These vapours can come from leaks in tanks, casks, and equipment, such as transfer pumps, pipes, and flexible hoses. A vapour explosion can occur if enough vapours are released in an enclosed space with ignition sources, such as gas boilers or sparks from electrical equipment.

Moving flammable liquids from one container to another can cause static electricity, increasing the chance of ignition or explosion caused by a spark. Pouring and diluting alcohol to use as a cleaning agent is also a fire and explosion hazard. Diluted ethanol is considered flammable in concentrations greater than 30 percent alcohol by volume.

Risk control

Reduce the risk of injury by following these guidelines:

- Never leave a still unattended.
- Keep the distilling area well ventilated so vapours won't build up if there's an equipment leak.
- Charge the still boiler with wash at alcohol concentrations below 40 percent. Charging the boiler with wash greater than 40 percent creates an explosion risk.
- Keep the distilled alcohol receiver level as low as possible. This reduces the risk of a spill if the container tips.
- Use a receiver with a small filling opening. This reduces the vapour escaping into the room and saves alcohol. If a fire occurs at the receiver, it will burn at the small opening and can be easily controlled.
- Place the receiver in a large, non-flammable, ethanol-resistant container. This will help control accidental overflows. The container should be capable of holding at least an hour's worth of output if the receiver spills or leaks.
- Dilute alcohol before storing it to raise its flashpoint. The flashpoint is the lowest temperature at which vapours of the material will ignite. Higher alcohol concentrations will lower the flashpoint and make the alcohol more likely to catch fire.
- Ensure that electrical equipment (for example, motors, trace heating, and electrical panels) in the distilling, pouring, and blending areas is installed according to B.C. Electrical Code requirements.

This will help prevent and contain sparks from the equipment.

- Use grounding and bonding when pouring alcohol from the storage container to the still container and when decanting large amounts of finished product or by-product. You can usually do this with metal containers by connecting them to a ground wire.
- Keep heaters and natural gas appliances with pilot lights at least 3 m (10 ft.) away from distilling, pouring, and blending areas.
- Ensure that fire sprinkler systems meet the fire jurisdiction's requirements for extinguishing an alcohol distillery fire.

Dust

Hazard

The main hazard with grain handling is grain dust. Grain dust is a respiratory irritant and a fire and explosion hazard. It may also cause allergic reactions for some people. When fine dust particles catch fire while suspended in the air, known as deflagration, fire can spread quickly and could lead to an explosion.

Diatomaceous earth (DE) is commonly used as a beer filtering agent. It's hazardous if inhaled because it contains high concentrations of crystalline silica. DE exposure can irritate the lungs and eyes. Prolonged exposure has been linked to severe respiratory problems, such as silicosis and lung cancer.

Risk control

Reduce the risk of injury by following these guidelines:

- Do thorough and regular housekeeping in your grain storage, milling, and conveying areas. Clean up immediately if dust accumulates to 3 mm ($\frac{1}{8}$ in.).
- Enclose the grain mill and storage areas, if possible. This prevents contact with ignition sources and keeps dust from spreading to other areas.
- Never use compressed air to clean grain dust. Use an intrinsically safe (non-sparking) HEPA vacuum and wet mops for cleanup.
- Use only non-sparking or intrinsically safe equipment for grain milling and conveyance.
- Don't do hot work or open-flame work, such as welding, in grain storage areas without taking proper precautions. Use a hot-work permit to identify hazards. Make sure you control the hazards before starting the task.
- Use a respirator while unloading grain and cleaning. Even if the grain dust is below the exposure limit, the respirator will provide workers with protection. You may need help from a qualified

References

Refer to the following for more information.

Regulation

Section 5.81,
Combustible dust

Publications

- *Controlling the Hazards of Combustible Dusts in Manufacturing* (bulletin)
- *Clean-Up of Hazardous Combustible Dust* (bulletin)

occupational hygienist who has the knowledge and experience to select the right equipment.

- Implement safe work procedures to minimize the spread of dust when loading mill hoppers and disposing of used grain bags. Wet down empty bags to prevent dust from spreading.
- If possible, replace DE with another filtration system.
- If you use DE, ensure workers know the hazards and safe work procedures to minimize exposure. DE typically comes in large paper bags. Workers may be exposed when working with or near the bags (for example, when folding or collapsing them) or during spill cleanup.
- Wear a fitted NIOSH respirator while handling DE. Workers must be clean shaven for respirator masks to be effective, although there are other types of respirators available for bearded workers.

Unguarded machinery

References

Refer to the following for more information.

Regulation

- Part 10, De-energization and lockout
- Section 12.2, Safeguarding requirement

Publications

- *Safeguarding Machinery and Equipment*
- *Lockout* (available in English, Punjabi, Korean, Chinese simplified, Chinese traditional, Vietnamese, and Spanish)

Hazard

Serious injuries can result from contact with moving parts in electrical tools and machinery, such as packing lines, palletizers, keg fillers, grain hoppers, mills and augers, mixing impellers, and pumps. Guarding, when used properly, can protect workers from serious cuts, crushing injuries, fractures, and amputations.

Risk control

Reduce the risk of injury by following these guidelines:

- Make sure all guards are in place before using equipment. If you need to remove guards for maintenance or inspections, be sure to replace them afterward.
- New equipment must be inspected to identify hazards, such as drawing in, entanglement, crushing, or impact. Install guards before putting equipment into service.
- Check manufacturers' instructions for safe use. Employers must ensure that workers understand these instructions.
- Place special attention on power transmission parts and points of operation when looking for unguarded hazards.
- Don't wear loose clothing or jewellery near equipment with moving parts.
- Keep long hair and beards contained.

- Whenever possible, retrofit older equipment with safeguards, such as plastic guards, safety curtains, or interlocked gates.
- Don't bypass or override safety devices — for example, don't tape over a sensor to defeat the safety system.

Troubleshooting, setting up, cleaning, or servicing machinery

Hazard

Equipment with an energy source can start unexpectedly and cause serious injuries, especially during cleanup, troubleshooting, set-up, or maintenance. These energy sources include electrical, mechanical, hydraulic, pneumatic, chemical, thermal, and compressed gases. Before performing cleaning, troubleshooting, or maintenance tasks, de-energize and lock out equipment such as packing lines, tank impellers, grain mills and augers, palletizers, and keg fillers.

Risk control

Reduce the risk of injury by following these guidelines:



Each worker doing the task must place a personal lock on each lockout device.

- Unplug equipment before doing cleanup, maintenance, or repairs. Maintain control of the plug.
- If the equipment is hard wired (connected directly to an electrical panel), follow the specific lockout procedure for that equipment.
- Use lockout devices to ensure the equipment can't be energized. Lockout devices include circuit-breaker locks, plug lockouts, steering-wheel lockout clubs, valve lockout devices, and switch lockouts. Each worker doing the task must place a personal lock on each lockout device.
- Ensure that all energy sources are de-energized and locked out. This doesn't only apply to electrical lockout. It may include steam valves, CO₂ valves, water valves, and process valves.
- Don't rely on interlocks in place of de-energization and lockout for maintenance activities.

Broken glass

Hazard

Bottles can break when moving through conveyance equipment or when workers manually handle them in a wet environment. Bottles can also burst if filled with too much CO₂ pressure — for example, during bottle conditioning, a process in which beer is carbonated from fermentation inside the bottle. Broken glass can cause cuts. Injuries range from minor cuts to loss of fingers or eyes.

Risk control

Reduce the risk of injury by following these guidelines:

- Wear cut-resistant gloves when working with glass bottles and cleaning up broken glass.
- Clean up broken glass immediately.
- Wear safety glasses while working on bottling, canning, or packing lines, or while handling bottles during bottle conditioning.
- Avoid bottle-to-bottle impacts and over-tight conveyor line pressure.

Delivery operations

Hazard

Loading, transporting, and delivering kegs, bottles, cans, or cases can lead to sprains and strains. Each delivery location has a different layout. This can make it challenging to identify hazards and assess the risks of carrying heavy items, setting up connections inside coolers, and stacking items. Loading-dock workers are also at risk of falling from dock doors or getting crushed by moving vehicles or unstable loads.

Risk control

Reduce the risk of injury by following these guidelines:

- Use mechanical aids for loading and unloading, if possible.
- Wear high-visibility clothing when working in the truck yard or loading bays.
- When using a loading dock, be sure to secure the vehicle with a dock lock or wheel chocks.
- Always secure loads before moving vehicles. Make sure kegs or cases are safely stacked. Don't stack non-stackable kegs.
- Make an inventory of your delivery locations. Identify the main hazards and develop risk-control plans. Ask your delivery team what hazards they find at each location.

- Inspect and maintain your delivery vehicles.
- Implement a safe-driving program to prevent impaired and distracted driving.

Mobile equipment

References

Refer to the following for more information.

Regulation

Part 16, Mobile equipment

Video

Power of Your Data: Brewers Distributor Ltd.

Go to worksafebc.com and search for “power of your data brewers.”

Hazard

Forklifts can tip over or roll forward and pin or crush workers, or they can collide with items, equipment, or structures. Forklifts can also run over or hit pedestrians, especially at intersections, entry and exit points, blind corners, and pedestrian-crossing areas. Pedestrians and drivers can be struck by falling loads if they are improperly secured or moved too quickly.

Risk control

Employers should evaluate areas where forklifts are used and identify the type of surface (for example, asphalt or concrete), pedestrian-crossing areas, overhead obstructions, ramps, aisle width, motor vehicle traffic, load weight, racking, and stacking height. This evaluation will help determine the type of forklift that should be used and any necessary layout changes.

Employers should train forklift drivers and pedestrians on safe work procedures for forklift and pedestrian traffic.

High-visibility vests can help make pedestrians more visible.

All forklift operators in B.C. must receive proper training from a competent and qualified trainer and demonstrate competency to a supervisor or instructor. Operators can reduce the risk of injury by following the guidelines described below.

Before operation, do the following:

- Perform a mandatory pre-use inspection before every shift.
- Never operate a forklift if you can't find the load rating capacity tag.
- Test the load capacity by lifting the load a few centimetres to determine stability. If the rear wheels aren't firmly touching the ground, then the load is too heavy.
- Always secure loads. Unitize loads so items don't fall. Falling kegs are dangerous, even when empty.
- Install dome mirrors to increase visibility at blind spots.
- Check truck beds to ensure decking is sufficient to handle the weight of the forklift and its load.
- When working after dark, ensure there is sufficient lighting to carry out the work safely.

References

Refer to the following for more information.

Regulation

Part 16, Mobile equipment

Publications

- *Safe Operation of Lift Trucks*
- Forklift Safety series (posters)

During operation, do the following:

- Don't raise or lower the load while the forklift is moving.
- Drive with the forks approximately 5 cm (2 in.) above the ground to clear uneven surfaces.
- Drive at a walking pace. Stop slowly to prevent loads from shifting.
- Don't drive near elevated surfaces with no railings.
- Sound the horn when approaching blind corners, doorways, or aisles to alert pedestrians and other operators.
- Drive in reverse to avoid blind spots. If you have to drive forward with a loaded forklift, use a spotter.
- When carrying a load, always drive forward when going up ramps and in reverse when driving down them.
- When driving without a load, drive in reverse when going up ramps and forward when driving down them.
- When finished, lower the mast completely, turn off the engine, and set the parking brake before leaving the forklift.
- Don't leave a running forklift unattended with or without a load.
- Don't make turns when driving on sloped areas. The forklift might become unstable and roll.
- Use the seatbelt on seated forklifts.

Noise

References

Refer to the following for more information.

Regulation

Sections 7.1 to 7.9, Noise exposure

Publication

Sound Advice: A Guide to Hearing Conservation Programs

Hazard

Noise from grain mills, centrifuges, and packaging lines can reach harmful levels and cause hearing loss. Noise-induced hearing loss is the most common occupational disease. You can sustain hearing loss by being exposed to a single loud noise or from repeated exposure to a consistent noise. Hearing loss can be gradual and may develop over a number of years.

Risk control

Employers can reduce the risk of hearing loss by following these guidelines:

- Determine whether noise levels are likely to result in overexposure. Employers must ensure that workers aren't exposed to noise levels above either 85 dBA L_{ex} daily or a 140 dBC peak sound level.
- If workplace noise exceeds either of those noise-exposure limits, the employer must develop and implement an effective noise control and hearing conservation program.
- Provide workers with education and training related to hearing protection.

Tip

If you're within 1 m (3 ft.) of someone and can't carry on a conversation without raising your voice, the noise level is likely greater than the exposure limit.

- Use engineering controls wherever possible. For example, install noise-abatement materials, enclose noisy equipment, or install it outside the building.
- Provide hearing protection for workers exposed to hazardous noise levels. Supervisors should monitor and enforce the use of hearing protection.
- Post notices of noise hazard areas.
- Provide annual hearing tests as required by the Regulation.

Workers can reduce the risk of injury by wearing approved hearing protection when entering areas posted as having high noise levels, whether or not it's noisy when they enter.

Compressed-gas cylinders

Hazard

Craft breweries use compressed-gas cylinders, such as CO₂ cylinders, oxygen cylinders, nitrogen cylinders, air compressors, propane tanks, and even pressurized empty kegs. Compressed-gas cylinders can explode or become a projectile if handled incorrectly. Oxygen leaks can become a fire hazard if fuel and an ignition source are also present. Corroded beverage-gas cylinders can explode and cause significant damage, injury, and even fatalities. Keg valves and spears can become projectiles and injure workers if pressure isn't released before servicing the keg.

Risk control

Reduce the risk of injury by following these guidelines:

- Store cylinders upright in a dry, well-ventilated area away from doors, stairs, elevator shafts, traffic, and heat sources.
- Always secure cylinders to keep them from falling during transportation, storage, and use. Cylinders must be secured by a cylinder stand, clamp, chain, or cable approximately two-thirds of the way up the cylinder.
- Don't slide, drag, or drop cylinders.
- Always use a pressure regulator to fill your kegs. Don't modify the regulator settings for a filling or dispensing system.
- Inspect kegs periodically. Discard or repair damaged kegs immediately. Never service a keg valve without releasing the pressure first.
- Post a "No smoking" sign near the cylinder storage area. Oxygen tanks are a fire hazard if placed near an ignition source.
- Keep compressed-gas cylinders outside the building, if possible.

References

Refer to the following for more information.

Regulation

Sections 5.36 to 5.47,
Substances under pressure

Publications

- *Compressed Gas Cylinders* (toolbox meeting guide)
- *Class A: Compressed Gas* (WHMIS label)
- *WHMIS 2015: The Physical Hazard Classes* (toolbox meeting guide)

Working alone or in isolation

Hazard

When working alone or in isolation, relatively minor injuries can result in major problems or even death if a worker can't get help quickly. Craft breweries or distilleries with night-shift operations may only have one or two employees working at night, making this a dangerous situation.

Risk control

Reduce the risk of injury by following these guidelines:

- Implement a no-work-alone policy for high-risk activities, such as working with the public, working with compressed gases, handling chemicals, and working at heights of 3 m (10 ft.) or more.
- Implement a person-check procedure for anyone who works alone or in isolation.
- Ensure that workers know the early warning signs of a potentially hazardous situation, such as a CO₂ leak.
- Ensure that workers are able to get help quickly if an incident occurs. This should be part of your emergency response plan.
- Develop and make available to workers written safe work procedures for working alone or in isolation. Train workers in those procedures.

References

Refer to the following for more information.

Regulation

- Section 4.19, Physical or mental impairment
- Section 4.20, Impairment by alcohol, drug or other substance

Publications

- *Managing Safety from the Supervisor's Perspective*
- *The Dangers of Fatigue in the Workplace* (bulletin)

Impairment

Hazard

Impairment means being unable to perform optimally because of diminished physical or mental capacity. The most common causes of impairment in the workplace are fatigue and substance abuse. Fatigue is the state of feeling tired, weary, or sleepy. It can result from lack of sleep, prolonged mental or physical work, or extended periods of stress or anxiety. Substance abuse includes the use of illicit or prescription drugs, alcohol, cannabis, or any other substance that causes impairment.

Risk control

Reduce the risk of incidents by following these guidelines:

- Develop a written substance-abuse policy for your workplace. This policy should address the rules about drinking during work hours. Ensure workers understand the policy and expectations.

Tip

One study has shown that fatigue can have similar effects to drinking alcohol. The effect of 17 hours without sleep is equivalent to a blood alcohol content of 0.05 mg/100 mL (the “warn” limit for driving in B.C.).

- Train managers and supervisors on your policy. They shouldn’t be expected to recognize specific effects of substances but should be able to assess acceptable performance and behaviour.
- Include in your workplace violence prevention plan what to do if non-workers (i.e., patrons) are intoxicated and a situation starts to get violent.
- Ensure there is sufficient coverage for staff on vacations or sick leave. Limit overtime hours so workers don’t work excessively long shifts.

Workers must tell their supervisor or employer if their ability to perform assigned work safely is impaired for any reason. If you are physically or mentally impaired, don’t keep working if your impairment could create a risk for you or anyone else.

Employers must not assign impaired workers to activities where impairment may create a risk. Employers must also not knowingly allow workers to remain at work while their ability to work safely is affected by alcohol, a drug, or another substance or condition.

Workplace violence

Hazard

The potential for violence exists with interaction between workers and the public — for example, in tasting rooms, stores, or during tours.

Risk control

Reduce the risk of incidents by following these guidelines:

- Conduct a risk assessment for workplace violence. Start by asking workers if they’ve been exposed to violence on the job, know of any violence that has happened to others, or have any violence-related concerns.
- Develop and implement a workplace violence prevention program with safe work procedures for preventing violence.
- Make sure your program includes procedures to prevent violence when travelling to and from work and when dealing with irate customers. It should also include information on preventing robberies and what to do if a robbery takes place.
- Make sure your program includes a process to report and investigate incidents.
- Train workers in the program.

References

Refer to the following for more information.

Regulation

Sections 4.27 to 4.31, Violence in the workplace

Publications

- *Take Care: How to Develop and Implement a Workplace Violence Prevention Program*
- *Leave When It’s Unsafe* (video)

References

Refer to the following for more information.

Regulation

- Sections 4.24 to 4.26, Workplace conduct
- Sections 4.27 to 4.31, Violence in the workplace

Website

Bullying and harassment
Search for “bullying and harassment” on [worksafebc.com](https://www.worksafebc.com). Includes a resource toolkit with templates for developing a policy statement and reporting procedures.

Bullying and harassment

Hazard

Bullying and harassment can take many forms, including verbal aggression, personal attacks, and other intimidating or humiliating behaviours. Workplace bullying and harassment can lead to anxiety, depression, and lost productivity. Don't confuse bullying and harassment with actions by managers or supervisors who are simply exercising appropriate authority as part of their job.

Risk control

Reduce the risk of incidents by following these guidelines:

- Develop a policy statement on bullying and harassment. Share it with workers and supervisors.
- Develop a process for reporting and investigating incidents and complaints.
- Train workers and supervisors to recognize potential bullying and harassment, to respond appropriately, and to follow procedures for reporting incidents.

Safe work procedures

References

Regulation

Refer to the following for more information:

- Section 4.14, Emergency procedures
- Section 4.21, Procedures for checking well-being of worker
- Section 5.101, Procedures for spill cleanup and re-entry
- Section 9.10, Procedures (for confined space hazards)
- Section 10.4, Lockout procedures

A safe work procedure is a step-by-step description of how to carry out a task safely. Safe work procedures identify hazards and specify what to do to eliminate or minimize risks.

When are written safe work procedures required?

The Regulation requires written procedures for certain tasks or situations. Examples common to most craft breweries and distilleries include the following:

- Lockout
- Working alone
- Chemical spills
- Confined space entry (procedure written by a qualified person)
- Emergency evacuation

In general, safe work procedures are written for the following:

- Less-routine tasks, to remind workers of the hazards and how to control the risks
- Hazardous tasks
- Complicated tasks, so important steps don't get missed
- Frequently performed tasks

What kinds of tasks require safe work procedures?

Here are some examples of tasks in the craft brewing and distilling industry where a written safe work procedure may be necessary:

- Cleaning and sanitizing a tank
- Boiling the wort in a brew kettle
- Cleaning and sanitizing a bottling, canning, or packing line
- Starting and troubleshooting a boiler
- Operating a forklift or mobile equipment
- Entering a tank
- Filling a keg
- Working with the public

Written procedures must specify any required PPE, when to use it, and where to find it. Safe work procedures must be available to all affected workers at the locations where they work. Supervisors and managers should use them for training workers and assessing competency. Workers are then responsible for following the procedures.

How to develop a written safe work procedure

Developing a written safe work procedure involves the following five steps:

1. Determine the overall task for which the procedure is needed.
2. Break the task down into its basic steps.
3. Identify the hazards associated with each step.
4. Identify the actions that will minimize the risks to workers from these hazards.
5. Prepare a list of the actions that workers must do when performing the task.

As an example, let's take a look at a safe work procedure for a common hazardous activity in craft breweries and distilleries: manually feeding a grain mill.

Sample: Safe work procedure for manually feeding a grain mill

Note: These instructions explain how to load grain into a mill safely. Not all grain mills are the same, so some generalization is required for a few of the steps.

Potential incidents include the following:

- Contact with moving parts in the grain mill or grain auger
- Overexertion while lifting grain bags
- Tripping over pallets or bags on the floor
- Allergic reactions or irritation from grain-dust exposure

Before you start

1. Verify that all the mill and auger guards are in place.
2. Put on appropriate PPE and clothing, including your respirator, safety glasses, and protective, non-slip footwear that fits well.
3. If the mill is equipped with a dust-extraction system, make sure it's working.

While you're working

1. If you're using grain bags, move them as close as possible to the mill. Use a pallet jack and a pallet to move the bags.
2. If the mill is equipped with an auger, start the auger before the mill to prevent blocking.

3. Flip a bag to the vertical position and use a safety knife to cut the bag's string at the top. Cut away from your body using a smooth motion. Don't try to cut by chopping or striking the bag or the string.
4. Use safe lifting techniques to lift the bag. Bend your knees and keep the bag close to your body. Avoid lifting your elbows over your shoulders.
5. Feed the grain into the mill slowly and steadily to minimize dust.
6. Keep the work area clear. For example, store empty bags and other garbage out of the way so they don't become slipping or tripping hazards.
7. If the mill or the auger is blocked, disconnect and lock out the power switch before removing the guards. Never place your hands or objects inside the mill hopper while the mill is running.
8. Fold empty bags with a smooth motion to avoid generating dust.

After you finish

1. Clean the area using a non-sparking vacuum cleaner and a wet mop. Don't let grain dust accumulate. Never use compressed air to clean grain dust.
2. Leave your dust mask on until after you've cleaned your hands, glasses, and uniform.
3. When cleaning, disconnect and lock out the power switch before removing the mill guards.

Orientation, education, training, and supervision

References

Refer to the following for more information.

Regulation

- Sections 3.1 to 3.3, Occupational health and safety programs
- Sections 3.22 to 3.25, Young or new workers

Publications

- *How to Implement a Formal Occupational Health and Safety Program*
- *3 Steps to Effective Worker Education and Training*

Forms and checklists

Sample Worker Orientation Checklist

Your occupational health and safety program should describe the type of education and training you'll provide to workers and when you'll provide it. For example, workers should receive instruction in the safe work procedures they must follow when performing hazardous tasks. Workers should also be instructed about site hazards and trained in the use of emergency equipment and procedures.

Employers should ensure that, before starting work, young or new workers receive a health and safety orientation and training specific to the workplace. A young worker is any worker under age 25.

Orientations and ongoing education

After you've completed the interview, selection, and hiring process and have picked the best candidate, it's important to make sure your new or young worker gets off to a good start. Orientations are important because they provide an opportunity to establish health and safety guidelines and requirements before a worker starts at a new job or location. Health and safety education is an ongoing process. Provide instruction to workers whenever there are changes in the workplace, such as a new work process or piece of equipment. The person conducting the orientation should know the brewery or distillery well and understand all the items on the orientation checklist.

What to include in an orientation

Orientations must occur on the first day of employment, before work begins. Workers must not perform any tasks until the orientation is complete. Orientations should include the following:

- Explain that workers should not perform any task they're not trained to do safely.
- Encourage workers to ask questions whenever they're unsure of anything.
- Introduce workers to the worker health and safety representative.
- Tell workers who their direct supervisor will be. Provide them with their supervisor's contact information.

In addition, inform workers of the following:

- Employer and worker rights and responsibilities, including reporting unsafe conditions and refusing unsafe work
- Workplace health and safety rules
- Potential hazards, including carbon dioxide, hot surfaces, hazardous chemicals, confined spaces, robbery, assault, or confrontation
- Procedures for working alone or in isolation
- Procedures for workplace violence
- Bullying and harassment policy
- Required PPE
- Locations of first aid facilities and how to summon first aid
- How to report illnesses and injuries
- Emergency procedures
- WHMIS requirements that apply to their tasks
- Contact information for the joint health and safety committee (or worker health and safety representative, if applicable)

Employers should provide young or new workers with additional orientation and training if the worker isn't able to perform work tasks safely or the worker asks for more training.

Training

All workers need supervised, hands-on training in how to safely perform their tasks before starting a job. The following three steps describe a general procedure supervisors can follow when training new workers.

Tips

- Use existing safe work procedures for training.
- If a written safe work procedure is available, provide a copy or tell the worker where to find it.
- Tell the worker where to get help in your absence.

1. Prepare the worker

- Explain the job in detail, including any safety precautions or required PPE.
- Encourage the worker to ask questions. Take the time to answer them fully.

2. Train the worker

- Demonstrate and describe specific procedures, including all safety precautions.
- Go through procedures at normal speed, then repeat them slowly while the worker asks questions.
- Watch the worker perform procedures until the worker can do them exactly as required.

- Answer any questions or repeat any key points that the worker may have missed.
- Keep written records of training. Document who was trained, when they were trained, who did the training, and what the training included.

3. Check progress and observe the worker on the job

- Monitor new workers to ensure they're maintaining safety standards.
- Make unscheduled checkup visits. As the worker progresses, make visits shorter and less frequent.
- Correct unsafe work habits.
- Reinforce and recognize good work habits.

Supervision

Tip

Supervisors should periodically observe and document what workers are doing on the job. Supervisors should also assess any risks resulting from worker actions.

If you're directing another worker, you're a supervisor. Supervisors are responsible for ensuring the health and safety of workers under their supervision. Supervision includes the following:

- Explain the hazards of the job.
- Instruct new workers in safe work procedures. Document the instruction.
- Ensure that workers have been trained for their assigned tasks, including safety precautions and safe work procedures. Document this training.
- Ensure that safety equipment and PPE is used when required and maintained in good working order. Document safety equipment and PPE maintenance.
- Ensure that workers handle and store all materials safely.
- Instruct new workers on how to report safety hazards and their right to refuse unsafe work.
- Enforce health and safety requirements.
- Implement risk controls for identified hazards.
- Correct unsafe acts or conditions that you observe or that workers bring to your attention. Document any steps taken.
- Monitor worker safety behaviours and well-being.
- Set a good example in areas such as following safe work procedures and using PPE.

Workplace inspections

References

Refer to the following for more information.

Regulation

Section 3.5, General requirement (for workplace inspections)

Publication

Safety Inspections Workbook

Forms and checklists

- Sample Inspection Checklist
- Sample Inspection Report

Besides correcting any hazards that you observe from day to day, set aside time for regular workplace safety inspections. Control any hazards you find during inspections. It's far better and less costly to prevent incidents than to deal with their consequences. Because safety inspections are preventive in nature, they're an important part of your occupational health and safety program.

When to inspect

Inspect your workplace at regular intervals (at least once a month) to prevent unsafe working conditions from developing. Also inspect your workplace when you've added a new process or there has been an incident. Inspection is an ongoing task because the workplace is always changing.

Who should inspect

Inspections should be conducted by a supervisor and a worker. If possible, involve the worker health and safety representative or a member of the joint health and safety committee, if applicable.

How to inspect

During an inspection, identify unsafe conditions and acts that could result in an incident so you can implement risk controls. Follow these guidelines:

- Use a checklist to ensure your inspection is thorough and consistent with previous inspections. See the sample inspection checklist in the WorkSafeBC publication *Forms and Checklists for Craft Breweries and Distilleries*.
- Ask yourself and the workers performing the task what hazards are associated with the task you're observing or that would be performed in the work area.
- Observe how workers perform tasks. Do they follow safe work procedures and use PPE as required?
- Ask workers about the hazards associated with their tasks and how they safely perform the tasks.
- Talk to workers about what they're doing. Ask about safety concerns.

- Record any unsafe actions or conditions that you observe.
- Keep inspections on file for two years.

While your first inspections may seem slow and difficult, over time they'll become much easier and will help make your health and safety program more effective.

What to inspect

There are different ways of approaching safety inspections, depending on the objectives of your health and safety program. For example, you can focus on the most common tasks your workers perform or on a specific issue addressed by your program, such as ergonomics.

Check whether workers are following safe work procedures. For example, consider the following:

- Is bottling equipment locked out during maintenance?
- Are grain-auger or mill guards in place and fastened?
- Are workers using safe lifting techniques when lifting cases?
- Are CO₂ monitors and confined space entry gas detectors calibrated?

Inspection topics

Topic	Things to consider
Building	Windows, doors, floors, stairs, roofs, walls, elevators, fire exits, docks, ramps
Containers	Garbage cans, bins, totes, barrels, carboys, gas cylinders, solvent cans
Devices and controls	Valves, warning-system limit switches, mirrors, sirens, signage, cover plates, lighting systems, interlocks, E-stops, atmospheric CO ₂ and oxygen alarms, local exhaust systems
Electrical	Switches, cables, outlets, grounding, extension cords, ground fault circuit interrupters
Environment	Dust, gases, noise, temperature, ventilation, lighting
Fire protection	Fire extinguishers, hoses, hydrants, sprinkler systems
Floors	Slipping, tripping, and falling hazards from the same elevation, cluttered aisles
Hand tools	Wrenches, screwdrivers, power tools, hydraulic tools, pneumatic tools
Hazardous materials	Flammables, explosives, acids, corrosives, toxic chemicals, combustible dust
Hygiene and first aid	Drinking fountains, washrooms, safety showers, eyewash facilities, first aid supplies
Materials handling	Conveyors, cranes, hoists, hoppers, manual lifting, lift trucks
Offices	Workstations, chairs, computer equipment, ventilation, floors, stairs, extension cords, emergency equipment, storage cupboards, filing cabinets
PPE	Hard hats, safety glasses, respirators, dust masks, gloves, harnesses, lifelines, hearing protection, face masks, rubber aprons
Powered equipment	Engines, electrical motors, compressors
Pressurized equipment	Boilers, kegs, tanks, piping, hoses, couplings, valves, cylinders, tap rooms
Production equipment	Mills, packaging lines, grain-auger guarding, pumps, agitators, valves, filters, centrifuges, brew-house equipment
Protective guards	Gear boxes, pulleys, belts, drives, chains, milling equipment, screw augers
Storage facilities	Racks, bins, shelves, cabinets, closets, yards, floors, lockers, storerooms, mechanical rooms, flammable substances cabinets
Support equipment	Ladders, scaffolds, platforms, catwalks, staging, aerial lifts
Walkways and roads	Aisles, ramps, docks, vehicle ways, catwalks, tunnels, warehouse walkways
Work processes	Working safely, using PPE, following safe work procedures

After the inspection

Tip

Get to the root of the problem. For example, if you see a wet floor, ask yourself: Why is the floor wet? Where is the water coming from? How long has it been like that? The following are possible explanations:

- A water leak
- High humidity
- A job process that creates the problem
- Workers who need training and education on how to clean up the hazard

Fix it right the first time and the problem shouldn't recur.

Follow these guidelines:

- Remedy serious hazards or unsafe work practices immediately. For example, if you find a ladder has a loose or damaged rung, immediately remove the ladder from service and repair or replace it. Some repairs and modifications may require design and approval from the equipment manufacturer or a professional engineer.
- Prioritize other, less serious hazards, and assign someone to remedy each one.
- Follow up on any actions that will take time to complete (for example, purchasing new equipment).
- Communicate your findings and plans to workers using your safety board or the joint health and safety committee.
- Keep a record of inspection results and timelines for when you plan to fix identified issues. This is a good practice that shows due diligence.



Keep records of all your inspections.

Incident investigation

References

Refer to the following for more information.

Act

Sections 172 to 177,
Accident reporting and
investigation

Publication

*Reference Guide for
Employer Incident
Investigations*

Forms and checklists

Employer Incident
Investigation Report
(EIIR) — search for “EIIR”
on [worksafebc.com](https://www.worksafebc.com)
and look for the link
to “Employer Incident
Investigation Report
(form 52E40).”

Incident investigations help determine the causes of an incident so you can take steps to ensure it won't happen again. Employers are required to immediately investigate any incident that involves the following:

- Serious injury or death of a worker
- A major structural failure or collapse
- A major release of a hazardous substance
- Fire or explosion with potential for serious injury
- A dangerous incident involving explosives, whether or not there is personal injury
- Minor injury or no injury but with the potential for causing serious injury (for example, a near miss)
- Injury requiring medical treatment

Employers aren't required to investigate motor vehicle accidents that occur on public streets or highways. The RCMP or local police generally investigate such incidents.

Employer Incident Investigation Report (EIIR) template

WorkSafeBC has developed an EIIR template you can use to create all four reports that may be required following an incident in your workplace. This template will help you collect all the necessary information and reduce the work associated with completing separate reports.

For a copy of this template and a guide on how to complete it, search for “EIIR” on [worksafebc.com](https://www.worksafebc.com). Look for the link to “Employer Incident Investigation Report (form 52E40).”

Near misses

A *near miss* is an incident in which there is no injury or damage but that could have resulted in an injury or death, or damage to equipment or property. Near misses may indicate hazardous conditions or acts that need to be corrected.

Incidents

An *incident* is an accident or other occurrence that resulted in or had the potential for causing a death, injury, occupational disease, or damage to equipment or property. Incidents include the following:

- Accidents in which a worker is injured or killed
- Accidents in which no one is hurt but equipment or property is damaged
- Near misses

The terms *incident* and *accident* are often used interchangeably, but the preferred term is incident because it includes near misses as well as accidents.

Participants

Everyone has a role to play. Workers must report incidents to their supervisors. Owners, employers, or supervisors must initiate incident investigations promptly. If possible, investigations should include at least one employer representative and one worker representative who is knowledgeable about the workplace operations. If your company has a joint health and safety committee, involve them in hazard identification, inspections, and incident investigations.

Goals

As much as possible, an investigation must do the following:

- Determine the causes of the incident.
- Identify any unsafe conditions, acts, or procedures that contributed to the incident.
- Find ways to prevent similar incidents.

Examples of incidents requiring investigation

The following are examples of incidents you would need to investigate:

- A worker suffers a second-degree burn from hot water splashed on the face.
- A worker's fingers are crushed in a bottling machine while trying to clean a spill without locking out.
- A maintenance worker changing light bulbs falls from a ladder, sustaining a head injury.
- A worker is overcome by CO₂ when purging a tank for cleaning.

How to conduct an investigation

Interview witnesses and the people involved in the incident, even if they weren't present at the incident. For example, you may need to interview a supervisor who gave instructions at the start of the shift or a trainer who previously instructed the workers involved.

Questions to ask

The investigation should answer the following questions:

- Who was involved or injured?
- What were the causes?
- When did it occur?
- Where did the incident happen?
- Why was an unsafe act or condition allowed?
- How can similar incidents be prevented?

Note: To help remember these questions, you can think of them as the “5 Ws and 1 H” questions or Who-What-When-Where-Why-and-How.

Factors to consider

Usually there are several factors that cause or contribute to an incident. Try to identify as many causes as possible. Factors to consider when investigating an incident include the following:

- Unsafe or defective equipment
- Unsafe acts or conditions
- Poor housekeeping
- Physical hazards
- Poor planning
- Poor instruction
- Unsafe work practices
- Unusual or unfamiliar work conditions
- Personal factors

Reporting incidents and injuries to WorkSafeBC

Employers must immediately report serious incidents to WorkSafeBC by phone. To report a serious incident, call 604.276.3100 in the Lower Mainland or 1.888.621.SAFE (7233) toll-free in Canada.

Serious incidents

Serious incidents include the following:

- Serious injury or death of a worker
- A major structural failure or collapse
- A major release of a hazardous substance
- Fire or explosion with potential for serious injury
- A blasting accident causing personal injury
- A dangerous incident involving explosives, whether or not there is personal injury

Reference

Publication

Refer to the following for more information:

Guide to Completing an Employer Incident Investigation Report (EIR)

Form 7

If a worker is injured, the employer must submit an Employer's Report of Injury or Occupational Disease (form 7) to WorkSafeBC within three days to initiate a claim. You can also submit the file online. Go to [worksafebc.com](https://www.worksafebc.com) and search for "form 7."

Form 7 is required in the following situations:

- A worker is injured and loses consciousness.
- A worker is sent for medical treatment by a first aid attendant or supervisor.
- A worker has an injury or disease that needs medical treatment.
- A worker is going to get medical treatment or has already received medical treatment for an injury or disease.
- A worker is (or claims to be) unable to do his or her job because of an injury or disease.
- An artificial limb, eyeglasses, dentures, or hearing aid is broken in an incident.

Filing an investigation report

All Employer Incident Investigation Reports (EIRs) must be submitted to WorkSafeBC within 30 days. Depending on the incident, WorkSafeBC may require a preliminary investigation within 48 hours of the incident. You can submit EIRs using one of the following methods:

- Use the online EIR upload portal. Go to [worksafebc.com](https://www.worksafebc.com) and search for "EIR upload portal."
- Fax 604.276.3247 in the Lower Mainland or 1.866.240.1434 toll-free.
- Mail it to WorkSafeBC, PO Box 5350, Stn Terminal, Vancouver, BC V6B 5L5.

Regular health and safety meetings

Good communication among employers, supervisors, and workers on health and safety issues is vital for the success of a health and safety program. Hold regular monthly meetings with workers to discuss health and safety matters. At your meetings, focus on identifying and correcting hazardous conditions or tasks, and making health and safety a priority in your workplace. Keep a record of each meeting, including what was discussed and who attended. Post meeting minutes for everyone to read.

Bring the following to each meeting:

- The latest inspection report
- Any incident reports completed during the past month
- Any new safe work procedures
- The minutes for last month's meeting

References

Refer to the following for more information.

Forms and checklists

Sample Monthly Health and Safety Meeting Record

Publication

Handbook for Joint Health and Safety Committees

Joint health and safety committees

Joint health and safety committees help create safer work environments by recommending ways to improve workplace health and safety and promoting compliance with the Regulation and the Act.

Workplaces that regularly employ 20 or more workers must establish and maintain a joint health and safety committee. (Regularly employ means to employ for at least one month, whether full-time or part-time.) The committee must include at least four members — usually two employer representatives and two worker representatives — and must have monthly meetings.

Worker health and safety representatives

Workplaces that regularly employ more than 9 and fewer than 20 workers are usually required to have at least one worker health and safety representative rather than a joint health and safety committee. These representatives act as advisors and work co-operatively with employers and workers to identify and resolve workplace health and safety issues. During health and safety meetings, the representative should raise any issues that workers have mentioned since the last meeting.

First aid

All workplaces must meet the first aid requirements in Part 3 of the Regulation. Effective first aid treatment can reduce the severity of work-related injuries. This will help minimize the financial costs associated with extensive medical treatment or the need to replace employees who are unable to work.

All businesses must keep a first aid kit on site, and many will also need a first aid attendant. The type of kit and the need for a first aid attendant depends on three factors:

- The hazard rating for your business
- The number of workers
- The travel time to the nearest hospital

First aid requirements for craft breweries and distilleries

Most craft breweries and distilleries are considered moderate-risk workplaces. To determine your first aid requirements, use the following tables, which apply to moderate-risk workplaces. First aid requirements are based on the number of workers per shift, so the requirements may vary from day to night shifts.

20 minutes or less surface travel time to hospital

Number of workers per shift	Supplies, equipment, and facility	Level of first aid certificate for attendant	Transportation
1	Personal first aid kit	N/A	Transportation at employer's expense
2-5	Basic first aid kit	N/A	Transportation at employer's expense
6-25	Level 1 first aid kit	Level 1	Transportation at employer's expense

More than 20 minutes surface travel time to hospital

Number of workers per shift	Supplies, equipment, and facility	Level of first aid certificate for attendant	Transportation
1	Personal first aid kit	N/A	Transportation at employer's expense
2-5	Level 1 first aid kit	Level 1	Transportation at employer's expense
6-15	<ul style="list-style-type: none"> Level 1 first aid kit ETV equipment 	Level 1 with Transportation Endorsement	Transportation at employer's expense
16-50	<ul style="list-style-type: none"> Level 3 first aid kit Dressing station ETV equipment 	Level 3	ETV (emergency transportation vehicle)

References

Refer to the following for more information.

Regulation

Sections 3.14 to 3.21, Occupational first aid

The Guidelines for Part 3 contain more information on first aid requirements, such as contents of first aid kits, types of first aid attendants, and facilities.

Forms and checklists

- Level 1 First Aid Kit
- Level 2 First Aid Kit
- First Aid Record (form 55B23)

Website

Employer Incident Investigation Report (EIIR)
To file first aid reports and incident investigation reports online, search for "EIIR upload portal" on worksafebc.com.

First aid kits and attendants

Follow these requirements:

- Ensure that every worker knows where first aid kits are located and how to call the first aid attendant (if one is required in your workplace).
- Post signs in your workplace indicating how to access first aid.
- If a first aid attendant is required, that attendant must hold an appropriate first aid certificate for your workplace.
- Train backup first aid attendants. Ensure that enough workers are trained for this responsibility to cover vacations and other absences.

Transportation of injured workers

Your business needs written procedures for transporting injured workers. Post these procedures in your workplace. These procedures should include the following:

- Who to call for transportation
- How to call for transportation
- Prearranged routes in and out of the workplace and to the hospital

Employers are responsible for the cost of transporting an injured worker from the workplace to the nearest source of medical treatment. You should also maintain records of all workplace injuries or diseases.

Records and statistics

Employers are required to keep health and safety records and statistics on file. Written records and statistics can help with the following:

- Identify trends for unsafe conditions or work practices so you can take steps to correct these potential hazards.
- Provide material for education and training.
- Provide documentation in case a WorkSafeBC officer requests it, or if an incident occurs and you need to prove that you did all you could reasonably do to prevent it.

Documentation

Maintain records and statistics, such as the following:

- Health and safety program reviews, to track the progress of your program
- Worker orientation and training records, to ensure that workers are getting the education and training they need
- Inspection reports, to provide historical information about hazards your business has encountered and how you've dealt with them
- Monthly meeting records, to monitor how promptly and how well action items have been carried out
- Incident investigation reports, to identify which hazards have caused incidents and how they were controlled
- First aid records, to provide injury statistics that will help prioritize health and safety efforts
- Confined space entry permits
- Equipment maintenance records

There are forms and checklists for many of the items listed above. See the WorkSafeBC publication [Forms and Checklists for Craft Breweries and Distilleries](#).

Statistics that may be of value to your operation include the following:

- Number of incidents and injuries each year
- Number of workdays lost each year
- Cost to your business from workplace injuries each year

Personal protective equipment (PPE)

PPE should be the last line of defence in a health and safety program. Before considering PPE, first try to eliminate or minimize the risks using other means. For example, use less hazardous chemicals or modify work processes or equipment.

If PPE is required, ensure that it's available to all workers who need it. Employers must also ensure that workers are trained in the use of any relevant PPE, and that they use it according to their training.

Certain tasks require the use of more than one type of PPE. For example, workers may need to dilute concentrated, corrosive chemicals such as cleaning agents before using them. PPE required for this task may include face and eye protection, such as face shields or goggles, and skin protection, such as gloves. For the exact type of PPE to use when handling a chemical, check the SDS for the chemical.

The table on the following page lists various types of PPE and their uses in the craft brewing or distilling industry.

Typical PPE used in craft breweries and distilleries

Body part	Type of PPE	Uses
Eyes and face	Safety glasses	General eye protection from minor splashes and objects or particles that could enter the eyes
	Safety goggles and face shields	Working with chemicals or hot liquids that may splash
Ears	Hearing protection	Working around bottling, canning, packing, or palletizing equipment areas, or around any other loud equipment
Hands	Work gloves	Working in storage areas, handling garbage, or working with hot equipment
	Chemical-resistant gloves	Cleaning with or handling hazardous chemicals (check SDSs for specific glove requirements)
	Cut-resistant gloves	Handling broken glass or cleaning equipment
Feet	Non-slip footwear	Working on wet floors or other slippery surfaces
	CSA-approved steel-toe boots	Operating mobile equipment and working in storage and warehouse areas
Body	Body harness	Used with fall protection systems
	Chemical-resistant apron	Handling hazardous chemicals
	Heat-resistant apron	Handling hot liquids or working around hot surfaces
Lungs	NIOSH-certified respirator for dust or mist	Emptying grain bags, cleaning grain spills, or working in dusty areas
	NIOSH-certified respirator for chemicals	Handling hazardous chemicals (check SDSs for specific cartridge requirements)

Emergency response plans

Craft breweries and distilleries should be prepared to respond to emergencies, such as fires, explosions, chemical spills, or natural disasters. If an emergency occurs, you will need to make quick decisions to minimize injuries and damage. Such decisions are easier if you've already developed an emergency response plan.

How to develop and implement an emergency response plan

Reference

Website

Provincial Emergency Preparedness, Response & Recovery Program
For more information on emergency planning and preparedness, go to www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery.

Follow these guidelines:

1. List all possible events (for example, serious injuries, fires, explosions, and natural disasters, such as severe weather and earthquakes).
2. Identify the major consequences associated with each event (for example, casualties, equipment damage, or facility damage).
3. Determine the necessary measures to deal with and recover from those consequences (for example, first aid, notification of medical authorities, rescue, firefighting, and employee management).
4. Determine what resources will be required (for example, medical supplies or rescue equipment).
5. Store emergency equipment where it will be accessible in an emergency.
6. Ensure that workers are trained in emergency procedures and shown where equipment is stored.
7. Establish a muster point. Ensure that all workers know the muster point location and what to do after evacuating. If the company has multiple sites, there should be a muster point for each one.
8. Hold periodic drills to ensure that employees will be ready to act if an emergency occurs. Evaluate each drill's effectiveness, and identify areas for improvement.
9. Communicate the plan to everyone involved.

Questions and answers

Common questions from employers

I operate a craft brewery or distillery. Do I need to register with WorkSafeBC?

Probably. Most craft breweries and distilleries in B.C. are required to register with WorkSafeBC and pay assessments (insurance premiums). For more information on registration or assessments, call the Employer Service Centre at 604.244.6181 in the Lower Mainland or 1.888.922.2768 toll-free in Canada.

Do I have to register if I am a sole proprietor of a craft brewery or distillery (the business is run by me and my spouse, without employees)?

No. Sole proprietors and their spouses aren't considered workers and aren't automatically covered for compensation benefits. You can, however, apply for Personal Optional Protection for yourself and on behalf of your spouse. This optional insurance will cover lost salary and medical expenses in cases of work-related injury or disease. For more information on voluntary coverage, call the Employer Service Centre at 604.244.6181 or 1.888.922.2768.

Note: If you hire any employees, including temporary help, you'll likely need to register with WorkSafeBC.

Do I have to pay WorkSafeBC premiums if my teenage children work for me in the business?

Yes. Children of the employer are considered workers and are automatically covered if there's an employment relationship.

On a side note, minors 16 years or older who are employed in food-primary establishments may serve liquor, but only under the supervision of adult staff. They aren't allowed to open bottles or pour or mix liquor.

Minors can't be employed in liquor-primary establishments, except with special permission from the Liquor Control and Licensing Branch. If you receive special permission to employ minors in your liquor-primary establishment, they aren't allowed to sell or serve liquor at any time. The only exception is minors 16 years or older who are employed at stadiums. They can serve liquor but can't open bottles or pour or mix liquor. Again, minors serving liquor must be supervised by adult staff.

References

Websites

WorkSafeBC registration

Find out more about registration requirements or register online at worksafebc.com/insurance. You can also download registration forms at worksafebc.com/forms-resources.

Online incident and injury reporting

You can report injuries and other incidents on worksafebc.com, including online filing of first aid reports and incident investigation reports. Search for “reporting incidents.”

Publication

3 Steps to Effective Worker Education and Training

We’ve never had an incident at our workplace. Do we still need to set up a health and safety program?

Yes. All B.C. workplaces are required to have an occupational health and safety program. A health and safety program will help you maintain an excellent safety record.

I recently hired a subcontractor. Am I responsible for the subcontractor’s health and safety?

Yes. Employers hiring contractors or subcontractors should check with WorkSafeBC to determine their health and safety obligations. It’s also a good idea to check with WorkSafeBC to make sure the contractors or subcontractors you hire are registered. If they aren’t, your company could be liable for their insurance premiums if there’s an incident. A clearance letter will tell you whether a business, contractor, or subcontractor is registered with WorkSafeBC and up to date on their payments. To get a clearance letter, apply online by searching for “clearance letter” on worksafebc.com, or call the Employer Service Centre at 604.244.6181 in the Lower Mainland or 1.888.922.2768 toll-free in Canada.

Can I pay the medical cost of an employee’s injury to prevent increased WorkSafeBC premiums?

No. You must report all work-related injuries to WorkSafeBC.

I only have a staff of two. Should we still hold monthly health and safety meetings, or can we meet less often?

Yes, you still need to hold regular monthly meetings so workers have an opportunity to discuss health and safety matters, and to correct unsafe conditions or procedures. You must also keep records of the meetings and what was discussed. For a sample monthly health and safety meeting record, see the WorkSafeBC publication [Forms and Checklists for Craft Breweries and Distilleries](#).

Can I or my employees smoke at work?

The owner or employer must control the exposure of workers to environmental tobacco smoke by prohibiting smoking in the workplace or restricting smoking to a designated smoking area. For more information, see sections 4.80.1 to 4.82 of the Regulation.

Common questions from workers

I only work part-time. Am I entitled to benefits if I get hurt on the job?

Yes. All workers, including young and part-time workers, are entitled to workers' compensation benefits in the event of a work-related injury or illness.

My job requires me to lift and stack heavy case boxes. What is the maximum allowable lifting weight?

There is no specific maximum allowable lifting weight. However, if you're required to lift heavy boxes, your employer must ensure that you can do so safely. This includes training you in safe lifting techniques and providing dollies or carts, if necessary.

My supervisor or employer has asked me to perform a task I believe is dangerous. What can I do?

You have the right to refuse work you have reasonable cause to believe is dangerous to your health. The first thing you should do is tell your supervisor or employer you think the task is dangerous. Together, you may be able to find a safe solution. If the two of you can't find a solution, continue the discussion with a worker health and safety representative (or another worker selected by you if there's no representative). If a solution still can't be found, you and your employer can call the WorkSafeBC Prevention Information Line at 604.276.3100 in the Lower Mainland, or 1.888.621.7233 (621.SAFE) toll-free in Canada.

I often work alone. What safety precautions should my employer take to protect me?

Your employer must have a written procedure and safeguards for working alone. Your supervisor must review these procedures with you as part of your training. These safe work procedures should be included in the health and safety program for your workplace.

Employers' Advisers

The Employers' Advisers Office is a branch of the B.C. Ministry of Labour, independent of WorkSafeBC. Employers' advisers are funded by the WorkSafeBC premiums collected from employers. At no additional cost, advisers provide impartial advice, assistance, representation, and training to employers about workers' compensation legislation, decisions, appeals, and policies.

Employers' advisers have a right to access WorkSafeBC information on your behalf, but they cannot file reports for you. Employers' advisers also conduct educational seminars for employers on topics such as occupational health and safety requirements, claims management, disability management, and assessments.

You can visit the Employers' Advisers Office website at www.labour.gov.bc.ca/eao or contact a regional office for help. You can reach all Employers' Advisers regional offices using the following numbers:

- Phone: 604.713.0303 in the Lower Mainland
- Toll-free: 1.800.925.2233 in Canada

WorkSafeBC resources

Prevention Information Line

The Prevention Information Line can answer your questions about health and safety, including responsibilities, first aid, reporting incidents, and finding an officer in your area. Anonymous calls are accepted.

Call 604.276.3100 in the Lower Mainland or 1.888.621.SAFE (7233) toll-free in Canada.

Website

WorkSafeBC provides a number of services and materials that will help you meet your health and safety requirements:

Go to worksafebc.com/forms-resources for forms, publications, videos, and other resources.

Go to worksafebc.com/law-policy for a searchable version of the Regulation and its accompanying guidelines and policies.

The rest of this section describes some WorkSafeBC publications you may find useful for improving health and safety in your craft brewery or distillery.

Health and safety programs

- ***Due Diligence Checklist***
Lists the basic elements that will help an employer meet the due diligence standard of care.
- ***How to Implement a Formal Occupational Health and Safety Program***
Provides more detailed information on how to develop and maintain an effective occupational health and safety program.
- ***Safety on the Job Is Everyone's Business***
Describes the responsibilities of employers, supervisors, and workers.
- ***3 Steps to Effective Worker Education and Training***
Explains steps for providing education and training to new workers and young workers.

Registration

- ***Small Business Primer: A Guide to WorkSafeBC***
Provides basic information on registering with WorkSafeBC, paying premiums, preventing injuries, investigating incidents, and reporting claims.

Prevention

- ***Back Talk: An Owner's Manual for Backs***
Describes common back injuries and how to avoid them.
- ***Hazards of Confined Spaces***
Describes confined space hazards and how to deal with them.
- ***Confined Space Entry Program: A Reference Manual***
A detailed reference guide for developing a confined space entry program that will meet the requirements of the Regulation.
- ***Understanding the Risks of Musculoskeletal Injury (MSI): An Educational Guide for Workers on Sprains, Strains, and Other MSIs***
Describes the signs and symptoms of MSI and how to identify MSI risk factors.
- ***Preventing Musculoskeletal Injury (MSI): A Guide for Employers and Joint Committees***
Provides information on preventing MSI and investigating MSIs.
- ***Lockout***
Describes what lockout is, when it's required, and how to do it.
- ***Safeguarding Machinery and Equipment***
Provides information on safeguarding, including hazard recognition, risk assessment, and solutions for specific machinery and equipment.
- ***Safe Operation of Lift Trucks***
Describes do's and don'ts for lift truck operators.
- ***WHMIS 2015: At Work***
Describes WHMIS, its requirements, and how to implement WHMIS in your workplace.

Claims

- ***Claims Review and Appeal Guide for Employers***
Describes appeal procedures and rules governing payment of a claim during the employer's appeal process.
- ***Claims Review and Appeal Guide for Workers and Dependents***
Describes the rights and obligations of claimants who wish to appeal the decision of a WorkSafeBC claims adjudicator.

Manufacturing Safety Alliance of BC (MSABC)

MSABC is the health and safety association for manufacturers and food processors in B.C. Its guiding principle is to create and maintain a united resource so the manufacturing and food processing industries can improve health and safety, and reduce injury rates and insurance premiums.

MSABC contact information

- Phone: 604.795.9595
- Web: safetyalliancebc.ca
- Email: manufacturing@safetyalliancebc.ca

