

# Workplace Safety in the Foodservice Industry

# Workplace Safety in the Foodservice Industry

The BC Cook Articulation Committee

BCCAMPUS  
VICTORIA, B.C.



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## Preface

*Workplace Safety in the Foodservice Industry* is one of a series of Culinary Arts open textbooks developed to support the training of students and apprentices in British Columbia's foodservice and hospitality industry. Although created with the Professional Cook, Baker and Meatcutter programs in mind, these have been designed as a modular series, and therefore can be used to support a wide variety of programs that offer training in foodservice skills.

*Workplace Safety* covers British Columbia legislation and regulations for workplace safety, as well as an overview of general safety practices in commercial kitchens and other workplaces in the foodservice industry.

Other books in the series include:

- Food Safety, Sanitation, and Personal Hygiene
- Working in the Food Service Industry
- Basic Kitchen and Food Service Management
- Meat Cutting and Processing
- Human Resources in the Food Service and Hospitality Industry
- Understanding Ingredients for the Canadian Baker
- Nutrition and Labelling for the Canadian Baker
- Modern Pastry and Plated Dessert Techniques

The series has been developed collaboratively with participation from public and private post-secondary institutions.

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# 1.

## Introduction

### Learning Objectives

- Describe WorkSafeBC regulations in the workplace
- Identify and describe workplace hazards
- Describe basic emergency procedures
- Describe fire safety procedures and regulations
- Apply workplace safety procedures

Your health and well-being are your most valuable possessions. Many laws and **regulations** exist to ensure employee safety, yet every year thousands of serious injuries occur. In many cases, these injuries have serious long-term consequences for both employees and employers. For those new to the workforce or working in the food service industry for the first time, having a solid understanding of both the rights and responsibilities of the employer and employee and training in how to operate safely in the workplace are the keys to minimizing the risk of a workplace injury.

Both employees and employers must take responsibility for making the workplace safe!

- **WorkSafeBC** dedicates a section of its website to the professional cook apprenticeship program and its learning outcomes. It can be found here on the Apprenticeship Website, <http://www2.worksafebc.com/Topics/Apprenticeships/App-ProCook.asp>
- go2HR is the WorkSafeBC-designated health and safety association for the tourism and hospitality sector, and it has a number of health and safety resources available, including useful tools, templates, and other information. Visit the website at <https://www.go2hr.ca/health-safety>



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## 2.

### WorkSafeBC Regulations in the Workplace

The regulations related to workplace occupational health and safety in British Columbia are found on the [WorkSafeBC website](#). It is very important that you know how and where to access the information and that you refer to the website for any updates or to ensure that you are complying with all the rules and regulations governing your industry.

The following five documents are essential to understanding and meeting the minimum requirements for occupational health and safety in B.C. These documents cover the legal obligations and regulations, and offer tools to help people understand how the regulations are applied and enforced.

1. [Workers Compensation Act \(B.C.\)](#)<sup>1</sup>
2. [Hazardous Products Act \(Canada\) summaries \(HPA\)](#)<sup>2</sup>
3. [Occupational Health and Safety Regulation \(OHS Regulation\)](#)<sup>3</sup>
4. [Prevention Manual](#)<sup>4</sup>
5. [Guidelines to help interpret and apply the OHS Regulation and Workers Compensation Act](#)<sup>5</sup>

#### Occupational Health and Safety Programs

Almost all businesses must be registered with WorkSafeBC and are required to have an occupational health and safety (OHS) program. Larger businesses require a formal program, while smaller businesses can have a less formal program. Regardless of the level of formality, the purpose of the program is the same in any organization.

An effective OHS program will:

- Identify hazards in the workplace
- Eliminate or minimize the potential for injuries, disease, or loss of life
- Limit financial losses resulting from injuries and disease
- Be monitored to ensure that it meets its goals and WorkSafeBC requirements

1. <https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/workers-compensation-act>
2. <https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/other-ohs-legislation/hazardous-products-act-canada--summary-of-key-sections#:~:text=Hazardous%20Products%20Act%20%28Canada%29%20%28summary%29%20The%20federal%20Hazardous,for%20controlled%20products%20used%20in%20the%20workplace.%20>
3. <https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation>
4. <https://www.worksafebc.com/en/resources/law-policy/prevention-manual/prevention-manual?lang=en&origin=s&returnurl=https%3A%2F%2Fwww.worksafebc.com%2Fen%2Fsearch%23sort%3DRelevancy%26q%3Dprevention%2520manual%2520%26f%3Alanguage-facet%3D%5BEnglish%5D&highlight=prevention%20manual>
5. <https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-guidelines>

Details on OHS programs are available on the WorkSafeBC [website](http://www.worksafebc.com).<sup>6</sup> All businesses must comply with WorkSafeBC requirements. Additionally, a mobile app is now available via [WorkSafe BC for OHS Regulation](#).

The most effective OHS programs are developed jointly by management and staff. There are different levels of responsibility in the organization of OHS. Everyone must understand both their own roles and the roles of others so they can work toward common health and safety goals.

6. <http://www.worksafebc.com>

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### 3.

## Orientation and Training for Safety: An Essential Step

Did you know that more than half of workplace accidents involving young and new workers occur during their first six months on the job? Effective orientation and training is the best way to prevent accidents from happening. Employers are responsible for ensuring that their workers are prepared for the job before they start working.

The training must be specific to the workplace and should be ongoing. Even an experienced worker will require a new orientation if circumstances change or new hazards develop. For example, there may be a new work process or new equipment, or the worker may be moved to a new work location or assigned to a different task.

It is management's responsibility to ensure that everyone is trained to follow safe work procedures. As an employee, your manager or supervisor should explain to you the safety rules and policies concerning the following:

- Job-specific hazards
- Your rights and responsibilities as a worker
- Your right to refuse unsafe work
- Violence in the workplace
- Bullying and harassment
- Working alone or in isolation
- Accident investigations
- Workplace Hazardous Materials Information System (**WHMIS**)
- Personal protective equipment (**PPE**)
- How to report potential hazards and unsafe work conditions
- First aid policies and procedures
- How to report injuries, accidents, and close calls
- Emergency and evacuation procedures

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## 4.

### Roles and Responsibilities

Ensuring workplace safety is the shared responsibility of WorkSafeBC, employers, and employees. All three have different roles to play in ensuring workplace safety is a priority.

#### WorkSafeBC Responsibilities

WorkSafeBC is a provincial body set up to maintain a safe, healthful working environment at job sites throughout the province. In addition to providing employers and workers with guidance and assistance when they are setting up health and safety programs, WorkSafeBC, has specific workplace responsibilities.

Under the Workers Compensation Act, WorkSafeBC is responsible for:

- Inspecting places of employment
- Investigating accidents and the causes of industrial diseases
- Issuing orders and directions specifying means of preventing injuries and industrial disease
- Assisting and advising employers and workers in developing health and safety programs
- Educating workers about industrial health and safety
- Providing living allowances, rehabilitation, and retraining for workers injured on the job
- Collecting contributions to an accident fund from employers and distributing money from the fund to injured workers

WorkSafeBC is a regulatory body and can order unsafe job sites closed until they are made safe. It is also responsible for issuing fines and penalties to employers as a result of workplace accidents.

The [Occupational Health and Safety Regulation](#) (OHS Regulation),<sup>1</sup> contains all the rules, regulations, and responsibilities relating to WorkSafeBC, employers, and workers.

WorkSafeBC dictates that every employer must make a copy of the Regulation readily available at each place of employment so workers can refer to it. This may be done either by including a hard copy version with other safety information that is provided to employees as a part of their training, or by providing instructions on how to access the Regulation online. The Regulation begins with a general explanation of terms, the procedure for notification of injury, and first aid requirements.

#### Employer's Responsibilities

The Act lists many, but not all, of the responsibilities of all employers. A few of these responsibilities are noted below. Additional conditions are noted in the OHS Regulation.

1. <http://www2.worksafebc.com/Publications/OHSRegulation/Introduction.asp#AboutOccupationalHealthSafetyRegulation>

The employer must ensure that:

- All work is carried out without undue risk of injury or industrial disease
- Machinery and equipment are capable of safely performing the functions for which they are used
- All permanent and temporary buildings and structures are capable of withstanding any stresses likely to be imposed on them
- All buildings, excavation structures, machinery, equipment, tools, and places of employment are maintained in good condition so workers will not be endangered
- Regular inspections are made to prevent structures, grounds, excavations, tools, equipment, machinery, and work from becoming unsafe
- Any unsafe conditions are corrected without delay
- Each worker is supplied, at no cost, with all protective safety equipment required by WorkSafeBC regulations
- All workers are instructed in the safe performance of their duties
- An accident prevention program is set up
- There is a safe means of entry to and exit from the work area
- Firefighting equipment is provided and maintained
- Workers with physical or mental impairment are not assigned to work where their impairment endangers themselves or others
- No one enters or remains, or is permitted to remain, on the premises of any place of employment while that person's ability to work is so affected by alcohol, drugs, or other substances as to endanger his or her health or safety, or that of any other person

## Employee's Responsibilities

Workers are responsible for their own safety on the job. This means that you have the right to refuse to do any act or operate any tool, appliance, or equipment when you have reasonable cause to believe that to do so would put you in danger.

It is your responsibility to wear proper clothing for the job site and to use the PPE provided by your employer or required for your job.

As a worker, you should keep the following personal responsibilities in mind:

- You must not remove any safety equipment from machines or equipment. This includes shields from grinders, mixers, etc.
- You must have had adequate instruction about a piece of machinery or equipment before you use it.
- You must make sure that no machine, equipment, or tool is used in a way that would cause injury to someone else.
- You must make sure that there are safe entrances to and exits from the workplace.

- You must make sure that the work area is safe for the movement of workers, equipment, and materials.
- You must wear protective eyewear when using grinders and other equipment that may be hazardous to the eyes.

## Health and Safety Committees

The employer is responsible for setting up an accident prevention program. As part of the program, a health and safety committee must be established for any employer with more than 20 full-time employees. Employers with fewer than 20 full-time employees are not required to have a safety committee, but it is an industry best practice to do so.

This committee is required to have at least four members who are experienced in the workplace. The membership of the committee must represent both employers and workers, and the number of employer representatives must never outnumber the number of worker representatives.

It is the committee's responsibility to help create a safe place to work, recommend actions that will improve the effectiveness of the health and safety program, and promote enforcement of WorkSafeBC regulations.

## Contravention of Regulations

The OHS Regulation clearly defines **contravention** as well as the liability of contravening the Regulation.<sup>2</sup>

1. A contravention of this Regulation will be deemed to be a contravention by the employer and will make that employer liable for any penalty prescribed by the *Workers Compensation Act*.
2. A contravention of this Regulation by a supervisor or a worker will be deemed to be a contravention by the supervisor and will make that supervisor liable for any penalty prescribed by the *Workers Compensation Act*.
3. A contravention of this Regulation by a worker will make that worker liable for any penalty prescribed by the *Workers Compensation Act*.
4. A contravention of this Regulation by a person working in or contributing to the production of an industry within the scope of the *Workers Compensation Act* will make that person liable for any penalty prescribed by the *Act*.

## Reporting Accidents

According to the OHS Regulation, an employer must immediately notify WorkSafeBC whenever an accident occurs that:

- Results in serious injury to or the death of a worker
- Involves a major structural failure or collapse of a building, bridge, tower, crane, hoist,

2. Worker Compensation Act, Occupational Health and Safety Regulation Section 2.8. [http://www.bclaws.ca/Recon/document/ID/freeside/296\\_97\\_01](http://www.bclaws.ca/Recon/document/ID/freeside/296_97_01)

temporary construction support system, or excavation

- Involves the major release of a hazardous substance
- Is an incident required by regulation to be reported

Note that “near misses” occur more often than accidents. Near misses are incidents in which there is no visible injury or damage but that could have resulted in serious injury, in death, or property damage. They are generally more reflective of a business’s operating guideline than are actual accidents or injuries, and they should also be reported to [WorkSafeBC](http://www.worksafebc.com).<sup>3</sup> Reporting near misses is a good way to prevent their recurrence. They should be seen as a learning opportunity and not as a reason to question the ability of the people involved.

## Investigating incidents

Prompt [investigation of incidents](http://www.worksafebc.com/claims/report_injury/default.asp)<sup>4</sup> should be conducted so that other employees will not get injured in the same way. Everyone in the business has a role to play, and you must report accidents and incidents to your supervisor.

According to the Regulation, an employer must immediately undertake an investigation into the cause of any accident or other incident that:

- Is required to be reported under the Act
- Results in injury to a worker requiring medical treatment
- Does not involve injury to a worker, or involves only minor injury not requiring medical treatment, but has a potential for causing serious injury to a worker
- Is an incident required by regulation to be investigated

This list does not apply in the case of a vehicle accident occurring on a public street or highway.

3. [http://www.worksafebc.com/claims/report\\_injury/default.asp](http://www.worksafebc.com/claims/report_injury/default.asp)

4. [http://www.worksafebc.com/workers/improving\\_health\\_and\\_safety\\_at\\_work/reporting\\_accidents\\_and\\_incidents/default.asp](http://www.worksafebc.com/workers/improving_health_and_safety_at_work/reporting_accidents_and_incidents/default.asp)

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## 5.

### Compensation and Benefits

WorkSafeBC, through its board of directors, is responsible for inspecting places of employment and subsequently with issuing orders and directions as needed to employers on how to prevent injuries and industrial diseases. Officers of the board are also responsible for investigating accidents and the causes of industrial diseases, for assisting and advising employers and employees to develop industrial health and safety programs, and for educating employees about industrial health and safety.

WorkSafeBC ensures that **compensation** is paid to a worker, or the worker's dependants, if he or she is injured, disabled, or killed in the course of employment.

#### WorkSafeBC Registration and Workers' Compensation Coverage

Most employers are required by law to register their business with WorkSafeBC and pay premiums. Registration of employers is legislated by the [Workers Compensation Act](#),<sup>1</sup> but obtaining coverage is more than just a legislated requirement. An employer who is covered by WorkSafeBC insurance is protected against lawsuits from injured workers.

Generally, registration is mandatory for anyone who:

- [Employs and pay people on a regular, casual, or contract basis](#)<sup>2</sup>
- [Hires someone to work in or around their home](#)<sup>3</sup>
- [Comes from another province or country to work in B.C.](#)<sup>4</sup>
- [Works as a commercial fisherman](#)<sup>5</sup>
- [Works in the trucking industry](#)<sup>6</sup>

Workers cannot register for WorkSafeBC insurance coverage. Almost all workers are automatically protected under the Act. If a worker is injured or contracts an occupational disease while on the job during the course of employment, WorkSafeBC covers the worker's medical and wage-loss costs.

There are some workers in B.C. who are *not* automatically covered by the legislation, including the following:

- Volunteers

1. [http://www.bclaws.ca/Recon/document/freeside/--%20w%20--/workers%20compensation%20act%20rsbc%201996%20c.%20492/00\\_act/96492\\_00.htm](http://www.bclaws.ca/Recon/document/freeside/--%20w%20--/workers%20compensation%20act%20rsbc%201996%20c.%20492/00_act/96492_00.htm)

2. [http://www.worksafebc.com/insurance/need\\_coverage/emp\\_10\\_10\\_10.asp](http://www.worksafebc.com/insurance/need_coverage/emp_10_10_10.asp)

3. [http://www.worksafebc.com/insurance/need\\_coverage/emp\\_05.asp](http://www.worksafebc.com/insurance/need_coverage/emp_05.asp)

4. [http://www.worksafebc.com/insurance/need\\_coverage/emp\\_10\\_10\\_30.asp](http://www.worksafebc.com/insurance/need_coverage/emp_10_10_30.asp)

5. [http://www.worksafebc.com/insurance/need\\_coverage/fishing\\_industry/default.asp](http://www.worksafebc.com/insurance/need_coverage/fishing_industry/default.asp)

6. [http://www.worksafebc.com/insurance/need\\_coverage/emp\\_10\\_10\\_50.asp](http://www.worksafebc.com/insurance/need_coverage/emp_10_10_50.asp)



- Professional athletes
- Self-employed individuals who work for two or more employers in a day
- Babysitters who work less than 15 hours per week

## Personal Optional Protection

Personal Optional Protection (POP) is optional workplace disability insurance for individuals who are not automatically covered under the Workers Compensation Act. This includes people who are self-employed as well as partners, proprietors, and proprietors' spouses in a non-limited company. POP protects you against wage loss and may provide medical and rehabilitation services if you are injured while on the job or if you contract a disease as a result of your work. For example, if you are doing work outside of your regular job, such as catering or freelance work as a self-employed individual, POP would provide coverage in the case of a workplace injury.

*Remember: Coverage is the employer's responsibility, and with very few exceptions all workers in British Columbia are covered by WorkSafeBC.*

## What Injuries and Job-related Illnesses are Covered?

Workers normally receive compensation if they are covered under the legislation and if, in the course of employment, they:

- Are injured or die
- Have a mental breakdown or illness (this may be caused by a single traumatic incident at the workplace, or repeated incidents over time, such as bullying and harassment)
- Contract a job-related illness (e.g., mercury or lead poisoning, silicosis, asbestosis and other lung ailments, heart attack, radiation sickness, cancers of various kinds, asthma, tendinitis and heat stress)

Note that the phrase "in the course of employment" does not mean the worker has to be at work at the time of the injury. It means the worker must be doing something that is connected with his or her employment.

In deciding if an injured worker is eligible to receive compensation for injury or illness, WorkSafeBC considers the following questions:

- Did the injury or illness occur on the employer's premises?
- Did it occur in the process of the worker doing something for the employer?
- Did it occur during an activity done in response to instructions from the employer?
- Did it occur while using equipment or materials supplied by the employer?
- Did it occur while receiving payment or other consideration from the employer?
- Was the risk something a worker is normally exposed to?
- Did it occur during a time when the worker was being paid?
- Was it caused by some activity of the employer or a co-worker?

After considering these questions, WorkSafeBC may decide to allow a claim that is not directly related to “work” but is related to “employment.”

#### Working in other Provinces

In most provinces, all workers, whether permanent or casual, are covered by legislation specific to each province. (Casual workers are those not on the regular payroll or in steady employment with a particular industry.) If you plan to work outside of B.C., check the relevant provincial legislation to determine exactly which occupations are covered.

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## 6.

### Workplace Hazards

By recognizing and understanding the potential hazards in your work area, you can help prevent accidents from occurring. All accidents are preventable. Both employees and employers must take responsibility for making the workplace safe. Causing injury by failing to follow known safety procedures or knowingly allowing uncontrolled hazardous situations to develop are serious safety violations.

Workplace hazards include things such as slippery floors, loose floor mats, and sharp knives, as well as hazardous materials. It is important for all employees to be aware of hazards, even if they seem obvious. Employers should provide information and training on any safe work procedures related to the job site. Safe work procedures are specific directions for doing a task or operating equipment that may pose a risk or hazard to the worker. Workers should always ask their supervisor if there are any safe work procedures they need to be aware of and/or any written instructions they should be following.

One of the main hazards in any workplace are cleaning products, some of which are everyday products that a person may not regard as hazardous, such as sanitizers and household cleansers. Cleaning products and all other materials that are potentially hazardous are governed by the Workplace Hazardous Materials Information System (WHMIS)

#### Workplace Hazardous Materials Information System (WHMIS)

The Workplace Hazardous Materials Information System (**WHMIS**) is Canada's national system of classifying and communicating information about hazardous materials in the workplace. The key components of the system are the classification of materials, cautionary labels and symbols, material safety data sheets (**MSDS**) and workplace education and training programs.

WHMIS was first introduced in 1988, and in 2015 it was changed to include the Globally Harmonized System of Classification and Labelling for chemicals (**GHS**). Currently there is a transition period, until 2018, to allow for suppliers, employers, and workers, to adapt to the new requirements. During this transition period, manufacturers, distributors, and employers will be allowed to comply with either the former WHMIS 1988 requirements or the new WHMIS 2015 requirements to allow for a phased-in approach.<sup>1</sup>

Federal legislation, the [Hazardous Products Act](#) HPA<sup>2</sup> establishes which products are regulated under WHMIS and have been traditionally categorized as **controlled products** within the Controlled Product Regulation (CPR). Changes in 2015 to align with the GHS include a change in terminology, classifying substances as **hazardous products**, and replacing the CPR with a new [Hazardous Product Regulation \(HPR\)](#).<sup>3</sup>

Regardless of the changes in terminology, WHMIS covers the sale, distribution, and use of hazardous materials in the workplace.

1. WHMIS 2015 changes: <http://hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/index-eng.php>

2. <http://laws-lois.justice.gc.ca/eng/acts/H-3/index.html>

3. <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2015-17/index.html>

WorkSafeBC regulations cover the use of hazardous materials in the workplace and identify employers' responsibilities. Workers who work with hazardous products must know how to handle them safely, which requires being properly trained on their use.

WHMIS categorizes hazardous materials in six hazard classes. These classes are depicted by eight symbols that identify the specific hazards of controlled products. After a controlled product has been classified, the following three WHMIS elements are used to communicate health and safety information:

- WHMIS label
- Material safety data sheets (MSDS)
- WHMIS education and training programs

### Hazardous (Controlled) Products

WHMIS defines a hazardous or controlled product as a pure substance or mixture that meets or exceeds criteria for inclusion in one or more of the WHMIS hazard classes. The six classes and eight hazard symbols from WHIMS 1988 are shown in Figure 1, and the symbols from the WHMIS 2015 program, which uses the GHS, are included in Figure 2. The appropriate symbol must appear on the applicable supplier labels.

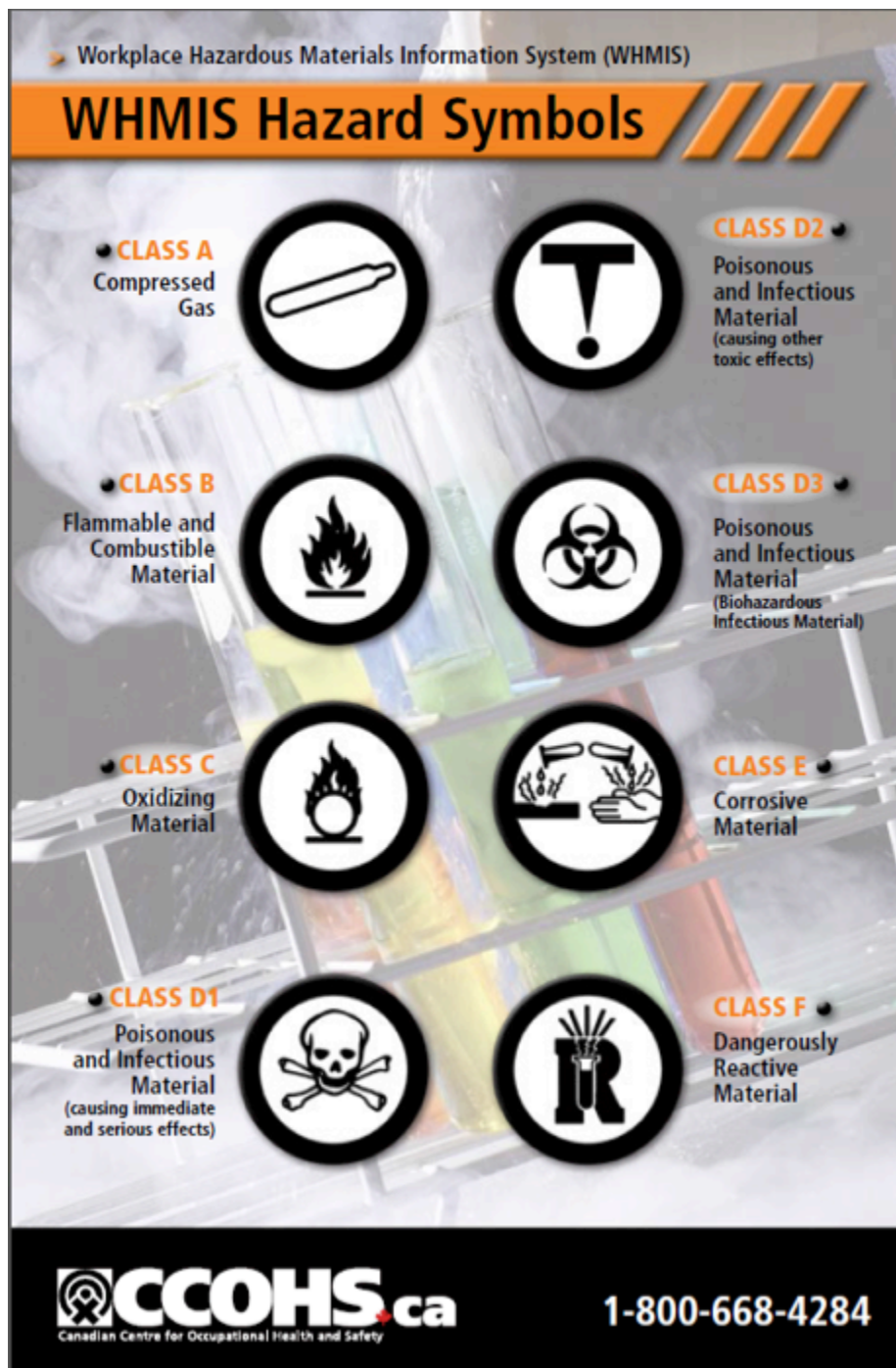


Figure 1. WHMIS 1988 classes and symbols (Used with permission of [CCOHS](http://www.ccohs.ca))



Figure 2. WHMIS 2015 classes and symbols (Used with permission of [CCOHS](http://www.ccohs.ca))

## WHMIS Education and Training Programs

Everyone who uses hazardous materials must be trained to use them properly and to use the personal protective equipment specified in the MSDS. It is the responsibility of the employer to provide WHMIS training as a part of an occupational health and safety program. If you have not received training in WHMIS, ask your employer to schedule a session for you as soon as possible.

Training must:

- Address any WHMIS requirements

- Be reviewed at least annually (more frequently if work conditions or hazards change)
- Provide for the periodic assessment of knowledge by testing or observation

## 7.

### Labels

#### Supplier Labels

When a supplier produces or imports a product for distribution and sale in Canada, that supplier must prepare a label that provides the following seven pieces of information:

1. Product identification
2. Supplier identification
3. Hazard symbols
4. Risk phrases
5. Precautionary statements
6. First aid measures
7. A statement advising that an MSDS is available

Figure 3 shows an acceptable format for a supplier label.

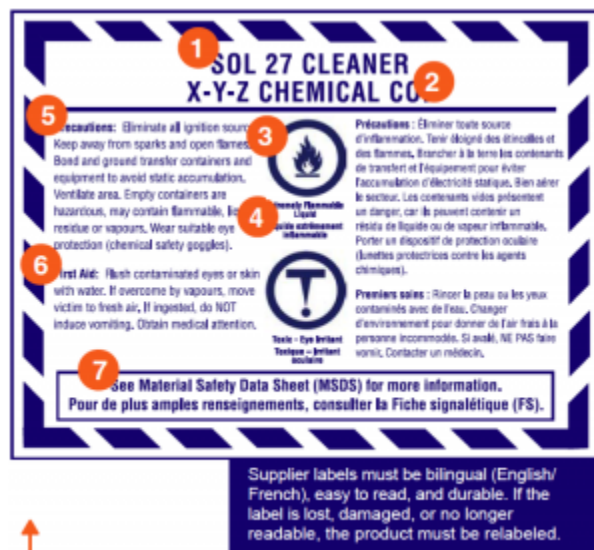


Figure 3. Sample supplier label (Used with permission of [CCHOS](#))



## Workplace Labels

Often, hazardous materials are transferred to smaller containers in the workplace for use. An example is putting a cleaning solution into a spray bottle to be taken into the kitchen. Unless you are using the product immediately, using all of the amount you put in the smaller container, and no one else will be using it, a workplace label is required.

A workplace label must contain the following information:

- The product identifier
- The hazard information
- A statement indicating that an MSDS is available in the workplace

Workplace labels are not required to have hazard symbols, but there is nothing preventing the employer from including them.

## Material Safety Data Sheets (MSDS)

An **MSDS** is a technical bulletin that provides detailed hazard, precautionary, and emergency information on a controlled product. An acceptable format for a data sheet is shown here: [View the Sample Material Safety Data Sheet](#)

The data sheet is meant to supplement the alert information provided on labels. Any person or company that uses a controlled product may obtain an MSDS from the supplier of the product. You should obtain an MSDS if you are going to use a product with which you are not familiar.

Copies of supplier and employer MSDS must be accessible to employees. The sheets must be posted close to work areas and made available during each work shift. Workers must be taught what to look for in a data sheet, and they must be given an opportunity to become familiar with the information on the sheets.

The employer must ensure that there is an MSDS for each controlled product found in the workplace. The employer must get in touch with the supplier for an updated sheet when the data sheet is three years old.

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## 8.

### Warning Symbols (WHMIS 1988)

Listed below are symbols used to identify hazardous materials, which all workers should be familiar with. The symbols in circles indicate hazard classes and divisions set by WHMIS. These are generally found on products that are usually sold in large quantities to manufacturers and contractors, and they must carry the correct labels. The hazard symbols in triangles are set by Consumer and Corporate Affairs. These are used on products that are usually sold to individual consumers in small quantities.

#### Class A – Compressed Gas



Figure 4. Compressed gas symbol (Used with permission of WorkSafeBC)

This class includes compressed gases, dissolved gases, and gases liquefied by compression or refrigeration (Figure 4).

Examples: Gas cylinders for barbeques, small blow torches, and butane lighters all contain compressed gas.



Figure 5. Explosion symbol (Used with permission of WorkSafeBC)

Although not a part of the WHMIS 1988 program, this symbol (Figure 5) is a part of the new WHMIS 2015 program and the GHS. The explosion symbol is often found on small consumer containers of products stored under pressure. Bottles of compressed gas, propane, and other gases must be handled with extreme care. Protective caps should be kept on the tanks when they are not in use. Whether the tank is full or empty, it still contains tremendous pressure.

## Class B – Flammable and Combustible Material



Figure 6. Flammable and combustible material symbol (Used with permission of WorkSafeBC)

In this class are solids, liquids, and gases capable of catching fire or exploding in the presence of a source of ignition (Figure 6).

There are six divisions within Class B:

- Division 1: flammable gases
- Division 2: flammable liquids
- Division 3: combustible liquids
- Division 4: flammable solids
- Division 5: flammable aerosols
- Division 6: reactive flammable materials

Examples: White phosphorus, acetone, and butane. **Flammable** liquids such as sterno is more easily ignited than combustible liquids such as lamp oil for fondues.

When concentrations of flammable liquids are present, there is a great risk of these fumes being ignited by an open flame or spark. Fire extinguishers should also be on hand and in operating order. Take the necessary precautions to ensure using these flammable liquids safely.

## Class C – Oxidizing Material



Figure 7. Oxidizing material symbol (Used with permission of WorkSafeBC)

In this class are unstable substances that combine with oxygen and increase the risk of fire if they come in contact with flammable or combustible materials (Figure 7).

Examples: Cleaning chemicals.

## Class D – Poisonous and Infectious Materials

There are three divisions in Class D: Division 1, Division 2, and Division 3.

Division 1



*Figure 8. Immediate and serious toxic effects symbol (Used with permission of WorkSafeBC)*

This division covers materials that cause immediate and serious toxic effects (Figure 8). They can cause the death of a person exposed to small amounts.

Examples: Cleaning chemicals.

Division 2



*Figure 9. Other toxic effects symbol (Used with permission of WorkSafeBC)*

In this division are materials that cause other toxic effects (Figure 9). Some cause immediate skin or eye irritation. Others can cause long-term effects in a person who is repeatedly exposed to small amounts.

Examples: Pesticides and rodenticides.

Division 3



*Figure 10. Biohazardous infectious materials symbol (Used with permission of WorkSafeBC)*

Biohazardous infectious materials are in this division (Figure 10). It applies to materials that contain harmful micro-organisms.

Examples: Some foods that can support bacterial growth such as salmonella bacteria or E. coli.

## Class E – Corrosive Material



Figure 11. Corrosive material symbol (Used with permission of WorkSafeBC)

This division covers caustic or acid materials, which can destroy the skin or eat through metals (Figure 11).

Examples: cleaning agents and degreasing agents.

### Chemical burn



Figure 12. Chemical burn symbol. (Used with permission of WorkSafeBC)

Chemicals that cause burns are identified by the symbol shown in Figure 12 and are also part of Class E, corrosive material.

## Class F: Dangerously Reactive Material



Figure 13. Dangerously reactive material symbol (Used with permission of WorkSafeBC)

These products may self-react dangerously (for example, they may explode) upon standing or when exposed to physical shock or to increased pressure or temperature, or they emit toxic gases when exposed to water (Figure 13).

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## 9.

### Precautions When Using Hazardous Materials

Although the corrosive action of chemicals can vary, the safety precautions required for each should be the same when they are handled. The following are some important points to consider when working with any cleaning products or chemicals in the workplace:

- Many substances are harmless enough by themselves, but when combined, they release toxic fumes. For example, two common household cleaning agents, ammonia and bleach, will produce toxic chlorine gas when mixed together.
- Do not mix any chemicals found on the job site unless you are absolutely certain that the combined mixture will not be harmful.
- Sometimes chemical changes are triggered by heat or radiation. For example, many oven cleaners produce fumes that are toxic when heated.
- All chemicals should be stored in their original containers and the containers should be labelled and sealed.
- If you do need to transfer a cleaning product into a smaller container for use, ensure it has the appropriate workplace label.
- Whenever there is the slightest risk of being splashed by these substances, wear safety glasses.
- Wear rubber gloves if your hands are likely to come in contact with a chemical.
- Rinse off and neutralize any spills on your personal clothing. If the spill is large, the clothing affected should be taken off to prevent any injury.
- Corrosive chemicals and flammable substances should be used only in well-ventilated areas. Avoid breathing the fumes.
- Many cleaners and some food products come in aerosol cans that use pressure to release their contents. These cans should not be kept near heat or exposed to flames, as the containers are explosive and the residual contents are often highly flammable. When the contents are finished, the empty cans must be recycled appropriately.

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## 10.

### Emergency Procedures

All employers are obligated to ensure staff are trained in workplace emergency procedures. This may include what to do in case of a fire, earthquake, or other emergency; identifying locations of emergency exits; and processes to follow to evacuate the building in the case of an emergency. These procedures are site specific and should be a part of the training for all new employees. In addition, regular drills or reviews of procedures are important to ensure that if an actual emergency occurs, everyone is able to react accordingly and safely.

Orientation to any new job site, even if temporary, should always include the following information:

- Location of emergency exits
- Location of first aid supplies or the procedures to call for an attendant
- Location of fire extinguishers
- Evacuation procedures and muster stations
- Any hazards present on the site

#### First Aid Procedures

Providing access to first aid supplies or attendants is a requirement of employers under the OHS Regulation, but the required vary according to the size of the employer and many other factors. For example, in some cases it is required that a designated first aid attendant be on duty, while in others it is enough to provide a first aid kit stocked with a prescribed list of supplies. Many industrial settings and B.C. training institutions are equipped with a first aid station with a trained attendant. The person who staffs that station is able to perform a wide variety of services from bandaging minor cuts to stopping major bleeding and splinting broken bones.

All workers should know where the first aid station is, who staffs it, and what services are available. If you sustain an injury, no matter how minor, ensure that the incident is reported in the first aid station log. Minor irritations often develop into major problems, so report all injuries promptly.

#### Emergency Wash Station or Shower Locations

There may be times when you are working with acids or hazardous substances such as cleaning solutions which may burn your flesh or splash into your eyes. If you accidentally splash or spill a corrosive substance on your skin, you will want to wash the affected area very quickly with large amounts of water to dilute the acid and minimize burning. It is therefore necessary that you be aware of the location of your emergency eyewash stations, sinks, or showers throughout your work site.

## Fire Safety Procedures and Regulations

### Components that produce fire

Before a fire can occur, these three components must be present:

- Fuel (a combustible material such as wood, gasoline, paper, or cloth)
- Heat (sufficient to raise the fuel to its ignition temperature)
- Oxygen, usually in the form of air (to sustain combustion)



Figure 14. Fire triangle (By [GustavB](#) under [CC BY-SA 3.0](#).)

When these three components combine, as shown in the fire triangle (Figure 14), the result is rapid combustion (fire). Keeping these three components separated will prevent a fire from occurring. An existing fire can be extinguished by removing any one of the three components:

- Remove the fuel (combustible material) from the vicinity of the fire. For example, if you shut off the valve of a gas main, the result will be starvation.
- Remove the heat. For example, by applying water, the result will be cooling.
- Remove the oxygen. For example, if you cover the fire with a lid, a wet blanket, or some sand, or you use a carbon dioxide, foam, or dry chemical extinguisher, the result is smothering.

Remember, keeping these three components separated will prevent a fire from occurring. Likewise, an existing fire can be extinguished by removing any one of the three components.

### Combustion speed

Fire, or combustion, is a form of oxidation (the union of a substance with oxygen). During the process of oxidation, energy is released in the form of heat — sometimes accompanied by light. Oxidation takes place at varying rates of speed. Table 1 shows examples of oxidation occurring at differing rates of speed.



**Table 1. Combustion speeds**

<b>Speed</b>	<b>Example</b>
Very slow	The rusting of iron
Slow	The spontaneous heating of materials such as oil soaked rags
Fast	The burning of paper or wood
Extremely fast	The exploding of gunpowder upon ignition

## First aid firefighting

First aid firefighting is best described as extinguishing a fire in its initial stages (before the fire can become too large) by using whatever is readily at hand. First aid extinguishers are designed to deal with fires in their infancy. These traditional fire extinguishers are still required on all work sites, even in areas protected by sprinkler systems.

## Classes of fires

Fires are divided into five main classes: A, B, C, D, and K. The classification of a fire dictates the type of extinguisher required.

The symbols shown in Table 2 may be the only indication you have of the best use for a fire extinguisher. Please make note of the class letter and symbols for future reference.

Table 2. Classes of fires. (**Fire class letter symbols** by **Andros 1337** is under **CC BY SA 3.0**. **Pictograms** by **Renata3** is under Public Domain.)

Class letter and symbol	Pictogram	Description	Extinguishing requirements
		Fires involving ordinary combustibles (wood, cloth, paper, rubber and many plastics)	Require the heat absorbing (cooling) effects of liquids and certain chemicals that retard combustion
		Fires involving flammable liquids or combustible vapours	Require extinguishers that prevent these vapours from being released or that interrupt the combustion
		Fires involving energized (live) electrical equipment	Nonconductive extinguishing agents are required to provide safety to the operator
	none	Fires involving certain combustible metals, such as magnesium, titanium, zirconium, sodium or potassium	Require a heat absorbing extinguishing medium that is not reactive with the burning material
		Fires involving commercial cooking appliances with oils or fats at high temperatures.	A wet potassium acetate, low pH-based agent is used for this class of fire

### Types of fire extinguishers

All businesses must have portable fire extinguishers. These come in many sizes and colours and have several markings on them. They may be divided into several types:

- Water extinguishers
- Dry chemical extinguishers
- Wet chemical extinguishers
- CO<sub>2</sub> extinguishers

Although most of these extinguishers can be used on more than one class of fire, none can be successfully used for all types of fire situations.

Water-based extinguishers are to be used on Class A fires and may be either the pressurized or pump type. Plain water extinguishers are rarely found in the kitchen.

Dry chemical extinguishers are designed for Class B and C fires or Class A, B, and C fires, depending on the type of agent contained in the cylinder. Three of the most commonly used dry chemicals are:

- Triplex dry chemical, a multipurpose dry chemical agent effective in extinguishing Class, A, B, and C fires, is generally considered the best all-round fire extinguisher.
- Quick-aid dry chemical, a specially treated sodium bicarbonate dry chemical agent that is moisture-resistant and free-flowing, is effective and approved for use on Class B and C fires and offers the lowest cost per kilo of the three dry chemical agents.
- Purple K dry chemical, a specially treated potassium bicarbonate dry chemical agent, provides effective protection against Class B and C fires and is approximately twice as effective as the standard sodium bicarbonate dry chemical.

You can use dry chemical extinguishers to put out Class D fires. However, the type of extinguisher depends on the type of metal that is burning. If you are working with a particular combustible metal, ask your instructor for information about the most effective extinguisher.

Wet chemical fire extinguishers became mandatory after discovering that modern shortenings burn at a higher temperature than other frying oils making the automatic fire suppression systems unable to extinguish larger fryer fires. The extinguishers for Class K fires are grey in colour and contain a potassium acetate based, low PH agent. The Class K extinguisher is also the ideal choice for use on all cooking appliances including solid fuel charbroilers. The agent discharges as a fine mist that helps prevent grease splash and fire reflash while cooling the appliance.

Carbon dioxide (CO<sub>2</sub>) extinguishers should be used on Class B and C fires. A CO<sub>2</sub> extinguisher is recognized by its fibre horn. It is less effective than dry chemical extinguishers but has the advantage of not leaving a residue that must be cleaned.

It is important that you know the location of and how to operate each extinguisher in your workplace. Because each manufacturer uses a slightly different operating procedure, the best thing you can do is to look carefully at the markings and instructions on the extinguisher. They will tell you how to use the extinguisher and where it is most effective.

## Fire extinguishing systems for commercial cooking equipment

Commercial cooking equipment that produces grease-laden vapours is considered to be a special fire hazard. To reduce the chance of fire, grease-extracting ventilation systems are equipped with automatic fire extinguishing equipment. A typical automatic extinguishing system fitted over a charbroiler and deep fat fryer is shown in Figure 15.

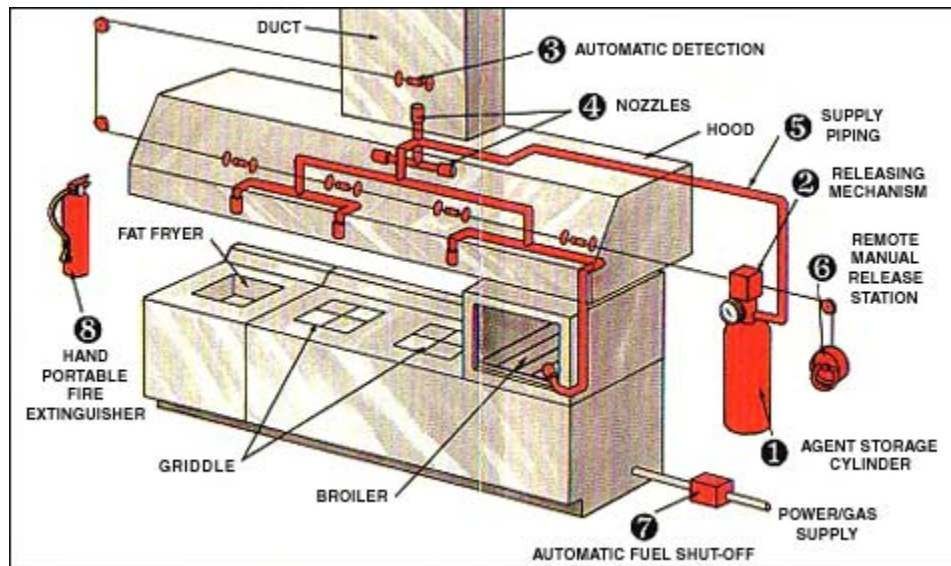


Figure 15. Typical automatic extinguishing system (Used with permission from Access Fire Protection Services: <http://www.accessfireprotection.com/pages/ul300kitchens.htm>)

This automatic system may use a dry chemical, a wet chemical, carbon dioxide, or water from sprinklers as an extinguishing agent.

A large number of the fires in ventilating equipment are caused by the buildup of grease due to poor housekeeping. Keep the hood and other equipment as clean as possible. Servicing should include a thorough inspection of all the components and a test activation of the system without the extinguishing agent. Servicing should include the following:

- Storage containers for stored-pressure dry chemical systems must be weighed and checked for pressure. The expellant gas cartridge of non-stored pressure systems should be checked for pressure or weight and the dry chemical examined for moisture.
- Nozzles and lines should be cleaned and the protective covers checked. Sprinkler heads and spray nozzles must be replaced annually.
- The hood, extraction equipment, and ducting should be cleaned and maintained on a regular basis.

## Fire Prevention Measures

As noted above, fire is only possible where there is a supply of combustible materials, oxygen, and heat. However, lack of caution, equipment failure, or simple human error can cause ignition. Here are some fire safety precautions for working near, handling, or storing flammable materials.

### Flammable liquids and related equipment

The nature of flammable liquids makes them very vulnerable to ignition. Consequently, the following storage precautions are necessary:

- All containers of flammable liquids must be of an approved type and clearly marked.

- All containers must have secure capping devices.
- Open flames or lit cigarettes must be prohibited within or near any liquid-gas storage area.
- Where drums are used as containers, they must have taps and a drip tray.
- Transportation must only take place while containers are sealed.
- All empty containers must be stored on end.
- Spills must be cleaned up or covered with sand.

Any equipment that requires a flammable liquid needs the same basic precautionary measures as stored liquids. All tank or equipment leaks must be reported and then repaired immediately.

All waste liquids that are flammable must be placed in approved containers for disposal and taken to the appropriate location for disposal according to municipal waste disposal regulations.

#### Paper and wood products

Dry paper and wood are susceptible to ignition quite easily. When damp or wet, they do not ignite quickly. Keep all paper and wood products away from open flames such as burners and pilot lights.

#### Oily cloths

All oily cloths must be placed in metal bins with sealed lids and sent to be laundered professionally.

#### Oils and fats

All oils and fats have a predetermined flash point at which they will ignite. This is considerably higher than the smoke point where the oil gives off large amounts of smoke, which is a good indicator that the heat should be removed or turned down. For safety considerations, allow oil to cool down before removing or recycling.

#### Garbage and clutter

Garbage and clutter present a problem in fire prevention for two reasons. Garbage may contain substances that are toxic when burned, and clutter in high traffic areas may present an obstruction for fire fighters or for those trying to evacuate a building. Always ensure that exit corridors are kept clear and that garbage is disposed of regularly.

### Fire Prevention Rules for the Kitchen

The following are important rules to remember while you work in the food preparation and storage areas of a kitchen:

- Keep a supply of salt or baking soda handy to extinguish small fires on range tops or under charbroilers.
- Don't ever put water onto a fire containing oil or grease.
- Keep hoods and other equipment free from grease buildup.

- Do not leave hot fat unattended on the range.
- If a fire alarm sounds, turn off all gas and electrical appliances before leaving the building.
- Remove all rubbish regularly.
- Store all dry goods neatly, and make sure they do not impede traffic flow in the area.
- Do not leave grease rags around the kitchen, particularly near stoves.
- Keep fire doors closed at all times
- Keep fire stairs and fire exits clear of any obstruction.
- Keep all fire exits clearly marked and lighted.
- Check all automatic fire extinguishing systems on a regular basis. Remember, full servicing is required every six months.

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## 11.

### Workplace Safety Procedures

The most important concept to remember is that you are responsible for your own safety and the safety of others. Most safety practices are common sense. Unfortunately, they can be forgotten or overlooked unless you make safe practices a habit or an instinct.

#### General Safety

By doing things right, you and your co-workers will commit yourselves to safety on the job and everyone will benefit. Accidents occur in many ways but most often can be traced back to one of two basic factors: ignorance or carelessness. You must always be concerned with your own safety and with the safety of others around you.

The following is a general list of safety precautions you must observe in any work area:

- Don't fool around. "Horseplay" is one of the biggest causes of injuries on the job and it may be grounds for dismissal.
- Never work while under the influence of drugs or alcohol, as you are a hazard to yourself and your co-workers.
- Pay particular attention to moving objects, such as equipment, dollies, mixers, and slicers.
- Walk, do not run, in the work areas.
- Stay completely alert on the job.
- Avoid back strain by lifting properly.

#### Kitchen Accidents and Their Causes

Over 90% of all accidents are preventable, and three basic rules of kitchen safety, if enforced, will significantly reduce the likelihood of kitchen mishaps.

1. Do not run: People who rush around in the kitchen tend to take chances that increase the likelihood of an accident.
2. Keep your mind on your work: People who let their attention wander are a hazard to themselves and others around them. Lack of interest, personal problems, and distraction by others can all lead to serious accidents in the kitchen.
3. Observe all the rules for operating kitchen equipment. Never operate kitchen equipment until instructed in the correct procedures.

In a commercial kitchen, safety is everyone's job. It is a responsibility that must be accepted throughout

the working day. As stated many times before, accidents are caused — they do not just happen. They are the result of not knowing the proper way to do a task, carelessly performing an operation or job, or not being consciously aware during the performance of a task. It is wise to remember that careless workers not only jeopardize their own health and well-being, but also jeopardize those around them.

Cooking is considered a fairly safe occupation, but hazards certainly do exist, not only in food preparation but in other related tasks as well. The most common accidents in the kitchen are cuts, burns, falls, and strains. All of these accidents happen when extreme carelessness or general horseplay is present. Carelessness and horseplay can be neither justified nor allowed in the commercial kitchen.

### Cuts

Cuts are all too common in commercial kitchens because knives and other cutting implements are constantly in use. These cuts, and the seriousness of the cuts, however, can be held to a minimum by using ordinary good sense, by paying attention to the proper safety rules, and by practising proper cutting procedures. Once the skill of using a knife is developed, accidental cuts should not occur very often. However, when and if they do occur, they should be treated properly and without delay. If infection sets in, it can result in more serious consequences and the loss of many working hours. Remember: preventive care is always cheaper than injury treatment!

### Burns

Two types of burns occur in the commercial kitchen: minor and serious. Minor burns are usually a result of wet or damp towels used to handle hot pots and pans, or from bumping an exposed area of your arm against a hot surface like an oven rack. More serious burns occur when grease is splashed, when steam escapes or is released too quickly, or when gas is turned on or released unknowingly. Burns are generally more painful than cuts, and they certainly take more time to heal. If the burn is severe enough to cause a blister, it should be treated promptly by trained medical personnel.

### Falls

Falls can cause some of the most serious injuries in the commercial kitchen. They may disable or incapacitate a person for life. Falls are caused by extreme carelessness, wet floors and aisles, spilled food or grease, and by torn mats or warped floor boards.

### Strains

Strains may not be as serious as other types of injuries, but they are painful and can result in the loss of many working hours. They are caused by carrying loads that are too heavy and by improper lifting practices. Most strains do not require medical attention, but they do require time and care to heal properly.

## Safety Practices for the Kitchen

A kitchen has many safety hazards. It contains hot stoves, electrical equipment, and sharp tools. These hazards, combined with the busy, often frantic pace in a kitchen, make it very important that you work carefully while giving constant attention to the safety practices described below.



## Lock-out procedures

WorkSafeBC regulations require that all powered machinery or equipment shut down for maintenance or repair must be secured against the possibility of the equipment being accidentally turned on while being worked on. To safeguard the person working on such equipment, lock-out procedures must be posted near the equipment, and the procedures listed must be followed before repairs or maintenance can start.

Locking out a machine usually means the power feeding the machine is disconnected either by pulling a plug, placing a switch in the off position, or turning a circuit breaker to the off position. The disconnected circuit is then secured in the inoperative position by the use of a padlock. The person doing the maintenance or repair keeps the key to this lock until the work on the machine has been completed. The worker then removes the lock and the machine is again operable.

Depending on the situation, the lock might be used to secure the power switch of the machine or it might be used to lock shut the door to a circuit breaker panel where the thrown breaker is located.

If the machine is not wired into its own power circuit but simply plugs into the wall, the lock-out procedure may require that the machine be turned off with its power switch and unplugged from the power receptacle. The plug end of the machine must be kept in plain view of the repair person so no one can inadvertently restore power without the repair person's knowledge.

Kitchen machines that must be locked out before repairs or maintenance can commence include, but are not limited to, meat saws, dough mixers, meat grinders, garbage disposal systems and meat slicers.

You must be aware of the lock-out procedures that are to be followed before repairing or cleaning any machine. Lock-out procedures must be clearly posted by management near each machine.

A sample lock-out procedure notice is shown in Figure 16. As has been stated, this notice would be posted near the machine that must be locked out.

**Figure 16. Lock-out procedure notice**

**DOUGH MIXER LOCK-OUT PROCEDURE**

1. SHUT OFF MIXER AT STOP/START SWITCH.
2. SHUT OFF AT DISCONNECT BEHIND MIXER.
3. APPLY LOCK TO DISCONNECT. PUT KEY IN POCKET. DO NOT LEAVE KEY IN LOCK!
4. ATTEMPT TO START MIXER, RESET OR RETURN SWITCH TO "OFF" POSITION.
5. COMPLETE WORK ON MIXER.
6. ENSURE BOWL AND MIXER ARE CLEAR OF LOOSE PIECES, TOOLS, ETC
7. REMOVE LOCK.
8. RESTART MIXER AND RUN UP TO OPERATING SPEED.

## Procedures for equipment

1. Never use any machine you have not been trained to use.
2. Pull plug or throw switch to off position before cleaning or adjusting any machine. Keep fingers, hands, spoons, etc., away from moving parts. Wait until machine stops before moving food.

3. Check all switches to see that they are off before plugging into the outlet.
4. Particular care must be taken when cleaning the slicing machine.
  1. First pull the plug.
  2. Turn the gauge to zero in order to cover the edge of the blade
  3. Do not touch the edge of the blade
  4. Clean the blade from the centre out.
  5. Clean the inside edge of the blade with a stick that has a cloth wrapped around one end.
5. Do not start a mixer until the bowl is locked in place and the attachments are securely fastened.
6. When using a mixer, turn off motor before you scrape down the sides of the bowl.
7. Use a wooden or plastic plunger rather than your hands or spoons to push meat down into a meat grinder.
8. Keep your hands to the front of the revolving bowl when operating the food cutter. This is one of the most dangerous pieces of equipment in the commercial kitchen.
9. Never start a machine until you are sure all parts are in their proper places. If it is a machine that operates with gears, check the gear position.
10. You must be aware of the lock-out procedures that are to be followed before repairing or cleaning any machine. Lock-out procedures must be clearly posted by management near each machine.
11. When using electrical power equipment, always follow the manufacturer's instructions and recommendations. Do not wear rings, a wristwatch, or a tie when operating electrical power equipment.

#### Procedures for sharp utensils

1. Use the right knife for the job.
2. Do not grab for falling knives. When a knife starts to fall, jump backward to get out of the way.
3. Always carry a knife with the tip pointing downward and with the cutting edge turned away from your body.
4. Never talk while holding a knife in your hand. Should you start to gesture with the knife, there could be serious consequences.
5. When cutting with any knife, always cut away from your body. This also applies to potato peelers or any implement with a cutting edge.
6. Never place a knife in hot water as it will cause cracks in the wooden handle. Never reach into soapy water in search of a knife.
7. Use a cutting board at all times. Never cut on metal.

8. Place knives in designated knife drawers. Preferably, knives should be placed in knife racks for proper storage.
9. When cleaning or wiping a knife, keep the sharp edge turned away from your body.
10. Always use a sharp knife; it is much safer than a dull one. Less pressure is required on a sharp knife, and the chances of a sharp knife slipping are much less.
11. Always cut with a back and forth sweeping motion, not with downward force.
12. Use knives for the purpose for which they are designed, not as levers or wedges or as bottle or can openers.
13. Pick up knives by the handle only.
14. Take a firm grip on a knife handle and always make sure the handle is free of grease or any other slippery substance.
15. When slicing round objects such as onions or carrots, cut a flat base so the object will sit firmly and not shift when being cut.
16. Never force a meat band saw; it may jump from the bone.
17. When using a cleaver, be sure the item to be chopped is sitting solidly. Note: *Avoid chopping large, hard, or brittle bones with a cleaver as the bones may splinter and become as dangerous as flying glass.*
18. When grating foods, never work the foods too close to the cutting surface.

#### Avoid burns

1. Use dry towels when handling hot skillets, pots, or roasting pans as wet cloth conducts heat more readily than dry cloth.
2. Avoid splashing grease on top of the range. Grease will ignite quickly, causing a fire. Do not throw water on a grease or fat fire: smother it. Use a foam extinguisher or a wet towel.
3. Remove the lids of pots slowly. Lift the side of the lid that is away from you so the steam does not rush out too quickly, causing burns to your hands or face.
4. Always give notice of “hot stuff” when moving a hot container from one place to the other.
5. Keep towels used for handling hot foods off the range. Too often, the end of the towel is dangled into or drawn across the fire.
6. Avoid overfilling hot food containers.
7. Never let the long handles of saucepans or skillets extend into aisles. If they are brushed, hit, or bumped the pot may fall off the range.
8. Never turn the handle of any pot over an open flame.
9. Place a lighted match to gas jets before turning on the gas. Ventilate gas ovens for a few minutes before lighting by leaving the oven door open so any gas pockets that might be present can escape.
10. Know the location of fire extinguishers; know how and when to operate them. When placing food in hot grease, always let the item slide away from you so the grease will not splash

toward you and cause a serious burn.

#### Keep floors safe

1. Wet floors are dangerous. Keep them dry.
2. Pick up or wipe up any spilled item immediately, particularly water or other similar liquids.
3. When liquid or fat is spilled, have one person watch the area and warn others of the danger while another goes for a mop. Small areas may be sprinkled with salt to provide traction until the spill is cleaned up.
4. Walk. Do not run or slide across the floor.
5. Never leave utensils on the floor. Someone is sure to trip over them, and it may be you.
6. Keep all traffic areas clear of boxes, garbage cans, portable equipment, mops and brooms, etc.
7. When mopping kitchen floors, do only a small area at a time.
8. Using rubber mats behind the range is a good practice. However, mats must be kept in first-class condition by daily cleaning and by replacement when they begin to wear.

#### Handle glassware and china safely

1. Use care in handling glasses and dishes.
2. When carrying china and glassware from one place to another, be alert and move cautiously. Keep complete control of the load at all times.
3. Discard all glass or other china items that are chipped or cracked.
4. Keep glasses and china out of the pot sink.
5. Never place glassware in soapy water. Wash glassware in a dishwasher, using a compound recommended for glasses.
6. If you suspect there is broken glass in soapy water, drain the water, then remove the pieces carefully with a paper towel.
7. Never use glassware in forming or preparing food. For example, do not cut biscuits or ladle liquids with a glass item.
8. Do not use a glass as an ice-cream scoop. It may break in your hand.
9. Use a pan and broom to sweep up large pieces of broken glass or china. Use a dampened paper towel to pick up the slivers. Put broken glass in a special container. Do not place broken glass in wastebaskets.

#### Store supplies safely

1. When opening boxes, crates, etc. remove the nails. Do not bend them down.
2. Always store heavy materials on bottom shelves, medium-weight materials next, and light-weight items on top shelves.

3. Get rid of all dirt, grease, and trash promptly to reduce fire hazards and to eliminate breeding places for rats and cockroaches.
4. Be sure light bulbs are guarded. As a precaution against fire, do not store any materials within 45 cm (18 in.) of any bulb.
5. Use ladders, not boxes or chairs, to get things from high shelves. Always have three points of contact when moving up and down the ladder. Do not over reach, and never stand on the top two rungs of the ladder.

#### Dispose of refuse properly

1. Place food scraps in proper containers.
2. Do not allow containers to overflow. Empty them before they are completely full.
3. Do not stack full refuse containers.
4. Report broken or defective containers.
5. If wearing gloves while disposing of refuse, you should remove the soiled gloves once the job is done and, when returning to work, wash and sanitize hands properly
6. Push garbage down using a tamper or other tool. Do not push it down with your hand or foot!

#### Lifting practices

1. Keep your back straight, but not necessarily vertical. Have a sure grip on the object.
2. Keep the object close to your body.
3. Bend your knees before lifting.
4. Lift with your legs, not with your back.
5. Call for help to lift or move heavy pots or containers.

#### Housekeeping

Good housekeeping is an important part of safety and accident prevention. Many unsafe conditions can be corrected before they result in injury. Good housekeeping is a necessity for a safe and sanitary kitchen. A clean work environment leads to pride in workmanship and a safe operation.

Good housekeeping procedures include the following:

- Do not block exits.
- Change burned-out light fixtures in work areas, walkways, and exits.
- Keep floors and work areas clean, dry, and grease-free.
- Keep steps and ladders in serviceable condition.
- Keep emergency equipment clean and unobstructed.
- Ensure that all signs and caution labels are in good condition and visible.

## Personal Protective Equipment

In addition to being aware of the mechanical hazards in the kitchen, it is important that you use the correct protective clothing and equipment. Wearing personal protective equipment (PPE) can prevent accidents from happening. As a worker, you are responsible for the following:

- Making sure your uniform is well fitted.
- Keeping all uniforms clean and in good condition, not frayed or badly worn.
- Making sure sleeves are kept buttoned at the wrist, cuffs on overalls and trousers are be eliminated, and trouser legs are long enough to hang outside boots.
- Wearing specific personal safety equipment such as goggles, hearing protection, gloves, and aprons when required.

To ensure that you are protecting yourself, your personal protective equipment (PPE) list should include the following items.

### Clothing

This includes well-fitted pants and jackets with all buttons fastened. Sleeves should be close fitting because sleeves that are loose and flowing are potential fire hazards when working over open gas burners. Health regulations require that all food handlers wear hair nets or use other approved methods for keeping hair under control. Aprons should be made of non-combustible and flame-resistant materials that do not melt under heat.

### Footwear

The OHS Regulation requires that approved footwear must be worn by employees in all industrial occupations. Ensure your footwear is sturdy and provides enough back support to not cause future back problems. Footwear suitable for commercial foodservice establishments must have a non-slip sole and a closed toe and closed back.

Your footwear should be sturdy and comfortable, and if the environment you work requires steeled toes, such footwear should be worn. High leather tops on shoes are a good idea as they will protect your feet from hot grease or liquids.

### Hand protection

The most common type of gloves used in food service establishments are natural rubber latex gloves, synthetic rubber gloves, and vinyl gloves. As it is impossible to distinguish between natural and synthetic rubber gloves simply by looking at them, you should read the label on the box to determine what they are made of. Some people may have an allergic reaction (known as dermatitis) or a more serious reaction known as anaphylaxis to the natural latex glove, and for this reason natural latex gloves are not recommended for use when preparing food.

Mesh gloves should be used when cleaning the meat slicer. Thick plastic gloves should be used when handling cleaning products.

### Eye protection

Eye protection in the form of safety goggles or masks should be worn whenever there is a chance of eye injury. Particles flying through the air can easily land in your eye and possibly do permanent damage. Eye protection is important, for example, when working with the band saw cutting through bone or when working with corrosive cleansers that could splash into your face.

### Hearing protection

Approved hearing protection must be worn when high-level noise conditions exist. These conditions are not common in commercial kitchens but may be present in food manufacturing operations.

### Respirators

Respirators should be used to protect yourself from inhaling harmful fumes or vapours such as those that often come from concentrated kitchen cleaning liquids. The respirator unit should be properly fitted to provide the best protection. Check the components to ensure they are not broken, cracked, or torn and that they do not have holes. Replace faulty components before use. Each unit will have a filter that should be checked regularly and replaced before the expiration date.

## Equipment Safety

Extreme care should be taken when operating equipment. Before you attempt to operate any tool or piece of equipment, you must be fully trained by an experienced operator. Make sure that all guards are in place and function properly and that all electrical connections are properly made. You should observe the following precautions when using equipment:

- Understand the correct operating procedures and safety precautions before operating a piece of equipment.
- Ensure that all guards are in place and functioning before any machine is started.
- Report defective or unsafe equipment to a responsible individual to prevent serious injury.
- Do not distract or interfere with the equipment operator.
- Make sure that the cords to electrically powered tools are in good condition, with no frayed parts or bare wires showing and make sure that the tools are properly grounded.
- Keep edge-cutting tools properly sharpened so that they do the job well and do not have to be forced because of dull edges.
- Use tools only for their intended use and make sure the size of the tool is right for the job.
- Report to your immediate supervisor any tool or piece of equipment that is broken or does not function properly.

### Ventilation systems

The environment in which you work is very important. The air around you may be filled with smoke and steam.

Kitchens have some type of ventilation equipment usually housed in the same units as the fire suppression systems. Many other types of ventilation equipment may be found in workplaces. It is important, regardless of where you are working, to become familiar with the ventilation equipment or systems and use them.

#### Emergency shutdown systems

Many kitchens have emergency shutdown systems or “panic buttons.” These are installed so that only one switch has to be thrown to kill the power to a large amount of equipment. These systems are to be used when a person is being electrocuted or is caught in a piece of machinery. Under these circumstances, you do not have time to hunt for and throw the correct switch. Fast action is necessary. Hit the panic button.

When you enter a kitchen for the first time, locate and learn how to use the emergency shutdown.

#### Guards and barriers

Guards and barriers are used as safety devices on many pieces of equipment used in a modern kitchen. Always use them to ensure you are operating the machinery in the safest way possible. Never operate a piece of equipment unless all guards and barriers are in position.

#### Utilities

Each time you have a new work location, check the location of the shutoffs for all of the utilities. That way you will be prepared for an emergency.

#### Electrical

You should make yourself aware of the location of the main panel or sub-panels being used, and you should learn how to shut them off in case of an emergency. If you must shut the power off, notify your supervisor right away. Obtain permission from the electrician before using a new service.

Electrical extension cords, if they need to be used, should be orderly and not allowed to become tangled. Such cords should be taped to the floor whenever possible as this will reduce the chance of someone tripping over them

#### Electrical safety

Even though you may normally deal with low voltages and current, the values are never far away from lethal levels. You can receive a shock or burn from any common electrical circuit. The severity of the electrical shock depends on four factors:

- The amount of current that passes through the body
- The path that the current takes through the body
- The frequency of the current
- The length of time that the current flows within the body.

Normal household current (plugs and light circuits) is generally limited by a circuit breaker to a value



of 15 amps. This device has been designed to trip and open a circuit if the 15 amp value is exceeded. It is possible to cause fatal injury with a current flow of only 50 milliamperes (mA). One milliampere (1 mA) is one one-thousandth of an amp.

It is easy to see that the body is sensitive to relatively small values of current. In comparison, a 100 watt light bulb draws approximately 0.85 amp (850 mA) of current when connected to a 120 volt source. Remember, there are 15 amps available in each standard house circuit. Industrial circuits may have a required flow of several hundred amps. In both cases, these are dangerous amounts!

In order for you to get an electrical shock, you must become part of the electrical circuit. You have to contact a live portion of a circuit while in contact with a lower potential such as a ground. Such an arrangement will complete an electrical circuit through your body to the ground, causing current to flow.

#### Water supply

Find out where the water shutoff is located in your kitchen. If a pipe breaks or bursts, the water may damage material, tools, and equipment or work already done. In addition, water may create an electrical hazard if it comes in contact with electrical panels or outlets. If you must shut the water off, notify your supervisor at once.

#### Gas supply

Locate the gas shutoff in the kitchen. Escaping gas can cause an explosion that could injure someone or do great damage. When the valve handle is running parallel with the gas line, the supply of gas is flowing and on. By turning the valve handle 90 degrees (that is, perpendicular to the gas line), you can shut off the gas supply. If you must shut off the gas, notify your supervisor immediately. Remember, you must have the gas flowing in order to light the pilot lights on equipment.

#### Other services

Other services, such as telephone, cable, and Internet, do not usually present any danger to people, and there is no way you can shut them off. If the lines for these services are broken or cut and if they must be located and repaired or moved, get in touch with the company that supplies the service.

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## 12.

### Key Takeaways and Activities

#### Key Takeaways

- Safety is a joint responsibility of the employer and employees.
- Always ask if you are unsure of how to complete a task safely.
- Always communicate to those working with you and a supervisor if you notice a safety hazard.

#### Activities

1. Identify the different types of fire extinguishers and their appropriate uses.
2. Review the safety and emergency procedures for your workplace or school.
3. Make a list of any personal protective equipment you use at work or school.

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## Key Terms

### Key Terms

**combustible**

Capable of catching fire and burning

**compensation**

Something given or received as an equivalent for services, debt, loss, injury, suffering, etc.

**contravention**

To come into conflict with or infringe on rules, laws, etc.

**controlled products**

Products that are potentially harmful and that fall under WHMIS regulation, also known as hazardous products under WHMIS 2015

**flammable**

Easily set on fire

**GHS**

Globally Harmonized System of classification and labelling for chemicals

**hazardous products**

Products that are potentially harmful and that fall under WHMIS regulation, also known as controlled products under WHMIS 1988

**MSDS**

Material safety data sheet, which outlines the handling of hazardous materials as required by WHMIS 1988

**PPE**

Personal protective equipment: clothing, gloves, footwear, or other equipment used to protect individuals against hazards

**regulations**

Laws, rules, or other orders prescribed by authority

**SDS**

Safety data sheet, which outlines the handling of hazardous materials as required by WHMIS 2015 and the GHS

**WHMIS**

Workplace Hazardous Materials Information System; a system of site-specific information about hazardous materials that are present and how to use and handle them safely

**WorkSafeBC**

Provincial agency responsible for workplace safety regulations and enforcement in British Columbia

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## About the Authors

This series of Open Textbooks has been developed collaboratively on behalf of the BC Provincial Cook Articulation Committee and go2HR. The committee would like to thank the following individuals for their contributions to developing, editing and reviewing these texts:

Wendy Anderson	Selkirk College
Martin Barnett	Vancouver Island University
David Bensmiller	University of the Fraser Valley
Fionna Chong	Vancouver Community College
Ron Christian	College of New Caledonia
Darren Clay	Pacific Institute of Culinary Arts
Tim Curnow	College of the Rockies
Corey Davison	Thompson Rivers University
Michael French	Northern Lights College
Rita Gower	Vancouver Island University
Dennis Green	go2HR
Linda Halingten	go2HR
Ken Harper	Vancouver Island University
Ken Jakes	Jakes and Associates Meat Industry Consultants
Kimberly Johnstone	Thompson Rivers University
Zito Kare	go2HR
Stuart Klassen	Okanagan College
Phillip Lie	Vancouver Community College
Christine Lilyholm	North Island College
Tobias Macdonald	Vancouver Community College
Robyn Mitz	Selkirk College
Gilbert Noussitou	Camosun College
Harry Pringle	Selkirk College
Tony Rechsteiner	College of New Caledonia
Debbie Shore	Vancouver Island University
Ysabel Sukic	Vancouver Community College
Brad Vennard	Northwest Community College
Luzia Zemp	Vancouver Community College

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## Versioning History

This page provides a record of edits and changes made to this book since its initial publication in the BC Open Textbook Collection. Whenever edits or updates are made, we make the required changes in the text and provide a record and description of those changes here. If the change is minor, the version number increases by 0.01. However, if the edits involve substantial updates, the version number goes up to the next full number. The files on our website always reflect the most recent version, including the Print on Demand copy.

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Version	Date	Change	Details
1.00	May 24, 2015	Book added to the BC Open Textbook Collection.	
1.01	June 12, 2019	Updated the book's theme.	The styles of this book have been updated, which may affect the page numbers of the PDF and print copy.
1.02	February 10, 2021	Updated the copyright information, theme, and front matter.	
1.03	March 21, 2023	Updated links in <a href="#">WorkSafeBC Regulations in the Workplace chapter</a>	Updated the 5 broken links to WorkSafeBC in the ordered list.