

Terminology & Approach

The term "**Housing Provider**" is used throughout this guide to indicate where each housing provider can enter their name to customize this document for their organization.

In addition, the guide uses a two-column approach throughout with:

LEFT COLUMN:

Recommended content for your Contractor Safety Program; the contractors you work with should adhere to these standards and regulations

RIGHT COLUMN:

Rationale to explain the left column, so housing providers can understand the importance and approach of the Contractor Safety Program

Disclaimer

The information presented here is, to the best of our knowledge, current at the time of publication and is intended for general application. This publication is not a definitive guide to government regulations, practices and procedures applicable under every circumstance. Contractors need to consult the appropriate regulations and statutes during a contract.

BC Housing would be pleased to answer individual requests for additional information about the contents of this program. However, we cannot guarantee the accuracy of, nor assume liability for, the information presented here.

Please forward all inquiries to: ohs@bchousing.org

HOUSING PROVIDER GUIDE for a CONTRACTOR SAFETY PROGRAM

'HOUSING PROVIDER' CONTRACTOR SAFETY 1				
INTRODUCTION				
CHAPTER 1: EMPLOYER AND CONTRACTOR RESPONSIBILITIES 3				
	1.1	'Housing Provider'	3	
	1.2	Contractors	5	
	1.3	Notice of Project	7	
	1.4	Contractor Workers	8	
	1.5	Accident/Incident Investigations	9	
	1.6	Contractor Safety Meetings	11	
	1.7	Right to Refuse Work	11	
	1.8	Contractor Site Orientation	12	
	1.9	Worker Training and Orientation	13	
CHAPTER 2: EMERGENCY PROCEDURES 14				
	2.1	First Aid Services and Injury Reporting	14	
	2.2	Fire Emergency	15	
CHAPTER 3: GENERAL SITE RULES				
	Req	uirements	16	
CHAPTER 4: WORK SITE INSPECTIONS			17	
	Req	uirements	17	
С	HAP	TER 5: GENERAL SITE WORK		
			18	
	Intro	oduction	18	
	5.1	WHMIS	19	
	5.2	Noise, Vibration, and Temperature	20	
	5.3	Radiation and Radiofrequency Radiation	21	
	5.4	Personal Protective Clothing and Equipment	22	
	55	Confined Space Entry	23	

	5.6	Lockout	25
	5.7	Fall Protection	26
	5.8	Excavation	27
	5.9	Tools, Machinery and Equipment	29
	5.10	Ladders, Scaffolds, Temporary Work Platforms	29
	5.11	Cranes and Hoists	31
	5.12	Rigging	32
	5.13	Mobile Equipment (vehicles, scissor lift, booms and giraffes)	32
	5.14	Electrical Safety	34
	5.15	Housekeeping	35
C	HAP	TER 6: EXPOSURE TO HAZARDS	36
	Intro	oduction	36
	6.1	Types of Hazards	37
	6.2	Working with Hazardous Materials	40
	6.3	Hazard Control/Safe Work Procedures	43
	6.4	Hazmat & Safety Annual Acknowledgement form	59

© 2017 BC Housing

'Housing Provider' Contractor Safety

'Housing Provider' is committed to providing safe and healthy working conditions, preventing accidents, and promoting positive attitudes toward safety and health within our organization, and expects full cooperation and participation from all contractors in this safety program.

'Housing Provider' maintains the highest standards for occupational health and safety in equipment design and operation, and complies with all applicable laws and regulations.

'Housing Provider' requires all contractors to plan for and design safety into every project on **'Housing Provider'** managed property, with appropriate standards and safe work procedures, based on WorkSafeBC's Occupational Health and Safety Regulation, the *minimum requirement* all **'Housing Provider'** contractors must meet.

Contractor training and education on safe work procedures and workplace hazards are also required under WorkSafeBC's regulations. **'Housing Provider'** expects contractors to be knowledgeable about workplace hazards.

'Housing Provider' reserves the right to terminate a contractor who does not comply with the *Workers Compensation Act* and WorkSafeBC regulations, at any time. An infraction may disqualify the contractor from working on future **'Housing Provider'** projects.

Introduction

Introduction

An effective health and safety program:

- Eliminates or reduces the likelihood of workplace accidents and incidents
- > Controls specific workplace hazards
- Proves an employer has done due diligence

We designed this safety program in accordance with WorkSafeBC's Occupational Health & Safety Regulation (OHSR) to ensure the health and safety of all 'Housing Provider' contractors and their employees and/or subcontractors.

This safety program sets out 'Housing Provider's' minimum requirements for contractors on occupational health and safety policies, general site work procedures, and emergency procedures, when performing work activities on 'Housing Provider' properties.

DEFINITION

The term "contractor" includes contractors, consultants, subcontractors, suppliers, vendors, and their workers.

In this safety program, volunteers who perform work on 'Housing Provider' managed property are considered contractors.

Explanation

Meaning: This sample guide contains procedures and practices to address hazards. Having a Contractor Safety Program emphasizes the importance of safety at work. The guide is intended to provide information and guidance on hazards particular to residential housing.

Impact: Housing providers need to develop your own Occupational Health and Safety (OHS) program for staff and contractors working for you.

All housing providers have to adhere to several regulatory bodies, such as WorkSafeBC, the provincial Ministry of Environment, and Health Canada; this guide primarily reflects WorkSafeBC regulations.

Additional Knowledge: Housing providers can use this guide as a template, or develop your own methods to address and communicate about hazards, as long as they comply with the current WorkSafeBC OHS Regulation.

This definition explains which groups and individuals are included under the term "contractor" in this guide.

Chapter 1: Employer and Contractor Responsibilities

1.1 'Housing Provider'

As an employer, our responsibility is to help contractors coordinate health and safety activities by:

- > Providing contractors with information on all workplace hazards in their work areas
- Ensuring the requirements of the Workers Compensation Act and WorkSafeBC Occupational Health and Safety Regulation are met
- Ensuring a system is in place to evaluate a contractor's safety program and safe work procedures, before commencing onsite work (if required)

Explanation

Meaning: This section outlines the housing provider's role in assisting contractors to coordinate health and safety activities.

Impact: Health and safety requirements should be considered anytime a contractor is on your premises. Implementing these requirements will vary, depending on the scope of work.

Housing providers are to inform contractors of any known and/or potential hazards in the work area.

Additional Knowledge: Housing providers with 20 or more workers are required to have a formal occupational health and safety program with seven components:

- 1. Occupational health and safety policy statement
- 2. Regular inspections
- 3. Written instructions for workers
- 4. Periodic management meetings to discuss health and safety issues
- 5. Incident investigations
- 6. Records and statistics
- 7. Instruction for and supervision of workers

Housing providers with fewer than 20 workers require a less formal program using regular monthly meetings with workers to discuss health and safety matters. You must:

- > Ensure meetings focus on maintaining participation in workforce health and safety and correcting unsafe conditions/practices
- > Maintain meeting records covering matters discussed

Regardless of the operation's size, basic duties specified in the *Workers Compensation Act* and OHSR apply.

Coordinating Multiple Employer Workplaces

Unless otherwise stated, Contractors are primarily responsible for workplace health and safety responsibilities for their workers and their sub-contractors. If there are multiple contractors, two or more, who use the same work area at the same time, then 'Housing Provider', unless assigned to another qualified individual or organization, will assume the coordination responsibilities of the contractor. If any questions regarding this on a jobsite, please contact the building manager or site representative prior to starting work.

Explanation

Meaning: If more than two contractors are performing work activities in the same work area, one must be responsible for the overall health and safety of the site. WorkSafeBC defines the responsible party as the Prime Contractor. A multi-employer workplace requires a written agreement between the housing provider and the Prime Contractor to transfer health and safety responsibilities and coordinate work activities on the site.

Impact: In the absence of an agreement to transfer health and safety responsibilities, the housing provider, as owner, must perform the duties of the Prime Contractor.

Additional Knowledge: Section 118 of the *Workers Compensation Act* requires a written agreement between the project owner and Prime Contractor. Without such an agreement, the owner is responsible for performing Prime Contractor duties.

The Prime (or general) Contractor has a site superintendent responsible for safety activities. The Prime Contractor also has to appoint a qualified safety coordinator responsible for coordinating workplace health and safety. On smaller projects, the superintendent will likely fill both roles; on larger construction sites, the safety coordinator may report to a separate site superintendent. In either case, the safety coordinator should be present onsite during most, if not all, hours of work.

For more information, refer to WorkSafeBC's online WorkSafeBC - Prime Contractor Questions.

1.2 Contractors

Contractors must:

- > Ensure workers are properly trained in and follow all aspects of workplace safety and health related to the services defined in your contract
- ➤ Ensure any services provided under contract are carried out in accordance with the Worker's Compensation Act, WorkSafeBC regulations, and all applicable statutes and regulations
- > Provide immediate notice to 'Housing Provider' of any damage, injury, or threat of damage or injury, to persons or property while working on 'Housing Provider' property
- Provide 'Housing Provider' with a copy of your current safety program, exposure control plan, and safe work procedures, upon request
- Train and educate workers in all aspects of workplace safety, in accordance with the WorkSafeBC OHSR
- > Ensure staff, residents and the public are kept safe at all times
- Provide the necessary tools, materials and equipment for workers to perform work safely
- Understand and be knowledgeable about workplace hazards

Explanation

Meaning: This general disclaimer lists the contractor's health and safety responsibilities while working with a housing provider, including any duties you put in place as part of your contractor safety program.

Impact: The contractor is responsible for health and safety at all times while on the worksite. This general disclaimer is included so the contractor must comply with the OHSR, and covers any items not specifically mentioned in later sections of this guide, as well as occupational health and safety requirements not included in WorkSafeBC regulations.

Additional Knowledge: Housing providers can add additional public, staff or resident safety concerns you want addressed here, such as requirements for signage, barriers, communications, notices, etc.

As an additional measure to transfer occupational health and safety risk and responsibility, the contractor should provide all of the tools, materials and equipment required for the contract.

WorkSafeBC Registration

Contractors under contract to 'Housing Provider' must:

- ➤ Be registered with WorkSafeBC and be in good standing
- > Ensure all overdue or outstanding assessments are paid
- > Provide 'Housing Provider' with your WorkSafeBC registration number or Certificate of Clearance

If you are unsure of your registration status with WorkSafeBC, contact the Employer Service Centre at 604.244.6181 or toll free at 1.888.922.2768.

Failure to comply with all applicable health and safety requirements will be cause for immediate termination or suspension of a contract, until the deficiency is rectified in a manner that is acceptable to 'Housing Provider' and/or WorkSafeBC.

Explanation

Meaning: Housing providers should only use contractors who are registered and in good standing with WorkSafeBC to avoid any liability. If a worker is injured on the job site with a registered contractor, his/her injuries and recovery are covered by WorkSafeBC.

Impact: Contractors can register at any time with WorkSafeBC. Request proof of registration and good standing whenever hiring a contractor.

Additional Knowledge: Housing providers carry a liability risk if you use a contractor who is not registered with WorkSafeBC. Should a worker be injured while on the job site and the contractor is not registered, the housing provider could be liable for any lawsuit and monetary award resulting from the injury and long-term recovery.

This statement:

- > Communicates the intent and importance of abiding with all health and safety requirements to the contractor
- Provides the housing provider with the authority to take action if you believe the contractor is not meeting health and safety requirements

1.3 Notice of Project

The Occupational Health and Safety Regulation requires contractors to notify WorkSafeBC in writing, using the Notice of Project (NOP) form, about undertaking certain projects, including names of the:

- > Owner
- > Prime Contractor
- > Person in charge of the project
- Person responsible for health and safety on the project

Click here to find out the types of projects requiring a Notice of Project and how to submit the form to WorkSafeBC.

WorkSafeBC prevention officers and managers monitor NOPs in their areas and select projects for follow up, based on the risk level and size/nature of the project or other circumstances. As a result, you may or may not be contacted for more information.

A copy of the NOP must be posted at the worksite. All NOPs for working with Asbestos or Lead (NOPA or NOPL) are to be submitted to 'Housing Provider' at (contact info).

Explanation

Meaning: WorkSafeBC requires contractors to submit an NOP a minimum of 48 hours before certain construction activities commence. The NOP enables WorkSafeBC officers to screen activities and follow up with the contractor, if necessary. The NOP should accurately explain the type of work being performed, location of work activities, number of works, and date and time of work.

Impact: The Prime Contractor is responsible for submitting the NOP. Depending on the work activity, a risk assessment and/or work procedures may also be required.

Housing providers are also required to submit an NOP when staff workers perform activities that fall under WorkSafeBC requirements, when applicable.

Additional Knowledge: Obtain a copy of the NOP and check that the information is filled out correctly, including the identity of the Prime Contractor.

Maintain a copy of the NOP, risk assessment and safe work procedures onsite throughout the duration of the contract. You may have to post this information in a conspicuous location for larger projects so workers can review it.

To find out more, see WorkSafeBC's NOP regulation.

1.4 Contractor Workers

Contractor workers are responsible for their own health and safety, as well as their fellow workers, while under their supervisors' direction. Worker responsibilities include:

- > Being alert to hazards
- Reporting hazards and incidents/accidents to supervisors
- > Reporting injuries to the first aid attendant
- Immediately reporting any unsafe acts and conditions to supervisors
- > Using and wearing protective clothing and equipment when required
- > Refusing unsafe work
- Learning and following safe work procedures and the company's safety program

Explanation

Meaning: The contractor's employees are required to abide by the employer's health and safety program and comply with housing provider requirements. This means contractor employees must follow site safety requirements to ensure the workplace is safe for themselves, other workers, and visitors.

Impact: Employees need to report any injuries and unsafe acts or conditions immediately to the safety coordinator, who should follow up at once.

Additional Knowledge: When the employer provides the necessary training, education and protective equipment, employees are responsible for performing work safely. Before work starts, the supervisor needs to confirm employees have been properly trained and have the correct protective equipment. In addition, the supervisor should periodically check during the contract to ensure workers are following safety requirements and using the equipment correctly.

1.5 Accident/Incident Investigations

Employers and contractors are required by regulation to investigate accidents and incidents. The WorkSafeBC OHSR states:

> "Except in the case of a vehicle accident occurring on a public street or highway, every employer must immediately initiate an investigation into the cause of every accident which:

- a. Is required to be reported by the Regulation,
- Resulted in injury requiring medical treatment, or
- Did not involve injury but had a potential for causing serious injury."

Contractors are responsible for conducting their own accident/ incident investigations while onsite. Contractors are required to prepare accident investigation reports in accordance with the WorkSafeBC OHSR. 'Housing Provider' may request copies of these reports for our records.

'Housing Provider' may decide to conduct an independent accident investigation, depending on the nature and severity of the accident, when it affects our employees, property, and/or tenants.

Explanation

Meaning: Accident investigations are a regulatory requirement intended to help employers and workers understand the causes and underlying factors that contribute to workplace accidents.

What employers must report

Section 172 of the *Workers Compensation Act* requires employers to immediately report:

- > Any incident that kills or seriously injures a worker
- > A major leak or release of a dangerous substance
- ➤ A major structural failure or collapse of a structure, equipment, construction support system, or excavation
- > Any blasting accident that results in injury, or unusual event involving explosives
- ➤ A diving incident that causes death, injury, or decompression sickness requiring treatment

Investigation process

- (1) People knowledgeable about the type of work involved must carry out an investigation and, if reasonably available, ensure the participation of the employer or representative and a worker representative.
- (2) As far as possible, the investigation must:
 - (a) Determine the cause or causes of the incident,
 - (b) Identify any unsafe conditions, acts or procedures that contributed in any manner to the incident, and
 - (c) If unsafe conditions, acts or procedures are identified, recommend corrective action to prevent similar incidents.
- (3) The employer must make every reasonable effort to have all witnesses to the incident, and anyone else whose presence is necessary for a proper investigation, available for interview by the person/officer conducting the investigation.
- (4)The employer must record the names, addresses and telephone numbers of persons referred to in subsection (3) above.

Incident investigation report

(1) Employers must prepare an incident investigation report in accordance with the Section 175 of the Workers Compensation Act.

- (2) Employers must provide a copy of the incident investigation report to the:
 - (a) Joint committee or worker representative, as applicable, and
 - (b) Workers' Compensation Board

Impact: WorkSafeBC requires that an accident/incident investigation be started as promptly as possible and at most, within 24 hours.

During the investigation, review ALL factors that contributed or may have contributed to the accident, whether a direct, indirect or root cause. This information may help prevent similar accidents from reoccurring in the workplace, and improve business practices and processes.

Additional Knowledge: An accident investigation is a process to improve workplace safety, not a worker performance review or an opportunity to find someone to blame.

When interviewing workers, create an environment where they feel comfortable and safe to provide suggestions for improvements without being reprimanded.

1.6 Contractor Safety Meetings

'Housing Provider' recommends contractors hold safety meetings on a regular basis (aka crew talks) to ensure workers understand the requirements and potential hazards of the job, as well as safety precautions and safety equipment required.

'Housing Provider' may ask to sit in on these meetings or request meeting documentation for our records.

Explanation

Meaning: Toolbox talks enable contractors to inform workers of health and safety concerns on the job site. These meetings are intended as five-to-ten minute training sessions that remind and/or train workers to safely perform work activities.

Impact: The nature of tool box talks will vary depending on the scope and duration of the project. For example, a smaller project like a kitchen renovation of a week or less may have a single toolbox talk covering the job, while a larger construction project lasting a year or two will have a more formal process covering specific tasks as they arise, such as excavation early on, with fall prevention a year later when the structure is being built up.

Additional Knowledge: WorkSafeBC provides many resources to help supervisors introduce or review health and safety concerns at these meetings. Some topics include worker handouts for later review.

1.7 Right to Refuse Work

Everyone employed in British
Columbia is covered by the
Workers Compensation Act
and workers must abide by the
legislation. This law gives workers
the right to refuse unsafe work
and work practices. Workers can
refuse to perform a duty they have
reasonable cause to believe would
endanger their own and/or other
employees' health and safety,
including 'Housing Provider' staff.

A worker exercising this right:

- Must immediately report the problem to their supervisor,
- Shall not be disciplined for exercising this right, and
- May be temporarily assigned alternative work at no loss in pay, until the matter is resolved

The contractor must inform a 'Housing Provider' representative immediately if this situation occurs.

Explanation

Meaning: Workers cannot be forced to perform dangerous or unsafe work. This legislation protects workers from performing unsafe work activities or tasks, and prevents the worker from being disciplined by the supervisor/employer.

Impact: A worker must immediately report the situation to their supervisor who, in turn, should investigate the report. Workers require a reasonable cause to believe the circumstances would endanger themselves or others.

Additional Knowledge: A worker cannot oppose work under this right if the appropriate precautions are followed, an undue hazard is not created, safety equipment/signage are in place, personal protective equipment is provided in good working order, and training has been provided. A worker can perform "dangerous" work as long as appropriate safety precautions are in place and followed. For example, firefighters regularly perform dangerous work, but have training, protocols and protective safety equipment.

For more information, see the WorkSafeBC Toolbox Meeting Guide: The right to refuse unsafe work.

1.8 Contractor Site Orientation

Before contractors begin any work on 'Housing Provider' property, all activities must be coordinated with the Building Manager or designated representative. The 'Housing Provider' representative will discuss the following topics with contractors and your workers:

- 1. General site rules
- 2. Emergency evacuation
- 3. Fire protection, if applicable
- Resident and public relations/ safety
- 5. Site specific hazards, concerns and/or procedures
- 6. First aid (where applicable)

Rationale

Meaning: The contractor needs to be familiar with the site and any potential hazards to safely coordinate work activities. Housing providers should meet with contractors to review your safety program, at a minimum, to give the contractor enough information to instruct workers on performing work safely. In addition, contractors need their own safety program with additional site/project specific safety measures.

Impact: Hold the orientation when the contractor starts to perform work, and provide updates if any changes arise.

Additional Knowledge: Orientations will vary depending on the sophistication of the employer and scope of work being performed. Larger projects should have a more formal process, while smaller projects may be informal. The intent is to provide an opportunity to communicate with the contractor about site hazards and what to do in an emergency.

1.9 Worker Training and Orientation

Contractors are responsible for ensuring every new worker receives adequate worksite training and orientation, before starting work. The supervisor must continue to follow up to ensure workers can demonstrate safe work procedures. In addition, it is the responsibility of the Contractor to ensure only qualified workers perform duties requiring government licensing or certification.

Contractors and supervisors also have to be trained to administer your health and safety program and provide training for your workers.

'Housing Provider' can ask to see contractor training records at any time. Please ensure these records are readily available upon request.

Explanation

Meaning: Most accidents are the result of workers not being properly trained to work safely. This is especially true for young workers, who may have little to no previous on the job training. Consequently, employers are required to properly train and orient workers for specific contract activities.

Impact: Check with the contractor to ensure workers have received training to conduct work safely. Contractors should be able to provide documentation or demonstrate that workers have been trained to work safely with the tools provided. Training requirements will vary depending on the work and tools/equipment.

Some work activities and equipment require individual certification or licensing, including:

- > Confined space
- **>** Cranes
- > Electrical lockout
- > Hazardous materials (asbestos, lead, mould)
- > Heavy equipment
- > Lifts and booms
- > Motorized vehicles
- > Powder actuated tools
- > Radio antennas
- > Welding
- > WHMIS (Workplace Hazardous Materials Information System)

Additional Knowledge: For larger projects like new construction and building envelope projects, all workers and visitors are required to attend the Prime Contractor's site safety orientation meeting before entering the work area.

Contractors should keep records for each worker, listing training and education s/he has received. Review records periodically to ensure training requirements have been met and address any gaps. This practice will reveal workplace trends and notable training deficiencies.

Chapter 2: Emergency Procedures

2.1 First Aid Services and Injury Reporting

Contractors are responsible for supplying first aid equipment, supplies, facilities and services. (See sections 3.14 to 3.20 of the WorkSafeBC OHSR for more information.)

Contractors providing services within 'Housing Provider' buildings must ensure workers are informed and aware of the location and availability of first aid, when required.

Part three of the Occupational Health and Safety Regulation also requires employers to keep upto-date written procedures for providing first aid, posted in conspicuous locations throughout the workplace. Posting this information will ensure the following two requirements are communicated:

- > The authority of the first aid attendant to treat injured workers, and
- > The responsibility of the employer to report injuries

If posting is not practicable, employers must use other measures to communicate the information to workers.

In the case of an injury resulting in time loss and/or medical aid, you are required to report the incident/injury to WorkSafeBC within three business days of the:

- > Injury's occurrence, or
- > Employer's representative being notified of the injury, via a completed Employer's Report of Injury or Occupational Exposure Form 7.1

Under section 172 of the Workers Compensation Act, an employer must immediately report fatalities and serious injuries; major structural failure or collapse of a building, bridge, tower, crane, hoist, temporary construction support system or excavation; or major release of a hazardous substance to the WorkSafeBC Prevention Emergency Line, at 604.276.3301 in the Lower Mainland or toll-free at 1.888,621,7233.

Explanation

Meaning: In case of an accident/injury, first aid services specified by WorkSafeBC should be easily accessible. First aid requirements will vary depending on the size of the project and scope of work. For smaller projects, a simple first aid kit is sufficient, while larger projects may need a first aid room.

Impact: Housing providers do not need to provide first aid services for the contractor, unless acting as Prime Contractor. Contractors are required to provide site first aid services. (Most housing providers already have a formal or informal first aid program under the OHSR, depending on the number of employees.)

All injuries must be reported to reduce the likelihood of the same accident reoccurring.

Additional Knowledge: State which party is providing first aid services in the contract documents.

Workers are to report injuries immediately to supervisors. When a serious injury occurs or could have occurred, an accident investigation is required to prevent future similar incidents.

2.2 Fire Emergency

'Housing Provider' properties have fire safety measures in place to protect occupants and visitors, such as smoke alarms, heat detectors, fire alarms, evacuation routes, assembly areas and other safeguards.

When working at a **'Housing Provider'** site, contractors need to be familiar with the onsite fire safety measures. You can obtain this information from the **'Housing Provider'** contract administrator or Fire Safety Director/Deputy Fire Safety Director at the property.

Explanation

Meaning: Preparing for this type of emergency is the best way to prevent building damage, injuries, and even deaths from occurring during a fire.

Impact: Most buildings have many fire safety measures in place. Inform contractors of these measures and what to do in an emergency as part of the site orientation process. Review fire safety plans at least annually.

Contractors need to take appropriate precautions performing hot-work operations to prevent fire from occurring. Housing providers can check to see if contractors have the required materials/equipment for this work onsite.

Instruct contractors and workers to keep emergency egress routes clear. Inform them where to assemble in case they need to evacuate the building during an emergency.

Additional Knowledge: Document the contractor's requirement to provide fire protection/prevention equipment in the contract. Specify that the contractor must not block evacuation routes or disturb fire safety measures without first informing and getting approval for alternative measures from a housing provider.

For more information, see BC Housing's Security, Safety & Emergency Preparedness Guide.

Chapter 3: General Site Rules

Requirements

Contractors and your onsite workers must abide by the following general site rules:

- All workers are expected to show up fit for work and should not be impaired or under the influence of alcohol, drugs or other substances.
- 2. All workers are to wear personal identification when working onsite in public areas or tenanted suites.
- 3. A worker shall treat all individuals present in the workplace with courtesy and respect.
- 4. Personal Protective Equipment must be maintained in good condition and used correctly when required for the work.
- 5. Only properly trained and authorized workers shall operate tools, equipment and machinery.
- 6. All unsafe acts and conditions must be reported to your supervisor or safety representative without delay.
- 7. A worker who sustains any injury, no matter how slight, must report it to the first aid attendant or their supervisor immediately.
- 8. Workers are expected to maintain good housekeeping in their areas of responsibility.
- 9. Workers shall not engage in any improper activity that creates a hazard. This includes practical jokes, fighting, unnecessary running or similar conduct.
- 10. Smoking is only permitted outdoors in designated smoking areas, or at a minimum 3 meters (10 feet) from any doorways, opening windows and air intakes, and where indicated. Care must be taken to properly extinguish and discard butts so as not to create a fire hazard.
- Workers shall not conduct or communicate themselves to any individual in a way that the worker knew, or reasonably ought to have known, would cause an individual to be humiliated or intimidated.
- 12. Ensure all equipment, material and tools are used in accordance with WorkSafeBC regulations and are secured at the end of the workday to avoid accidents, misuse, theft, or vandalism.

If anyone is found in violation of these rules and procedures, **'Housing Provider'** will take appropriate action, from issuing informal/formal reminders to banning individual access to the site, and may cancel the contract depending on the severity of the violation.

Explanation

Meaning: These general site safety rules apply to housing provider and contractor employees, and are the standard minimum safety rules for the work area. These rules do not limit other safety requirements.

More specific information on safety requirements is provided in *Chapter 5: General Site Work Procedures*.

Impact: Check to ensure contractors are complying with the site rules and, if not in compliance, remind them to enforce the rules.

Additional Knowledge: If a housing provider is aware of a contractor performing an unsafe act and allows the activity to continue, you could be held accountable for these actions along with the contractor.

Chapter 4: Work Site Inspections

Requirements

Effective safety and health inspections are one of the most important incident/accident prevention tools in a company's safety and health program. Using properly trained inspectors in a planned inspection program will:

- > Reduce incidents, accidents and property damage
- > Prevent the likelihood of accidents from occurring
- > Improve worker communication and company morale
- > Over time, save the employer money

Too often, safety inspections are aimed primarily at finding and recording unsafe conditions. This narrow focus tends to ignore other causes of incidents, such as unsafe actions and personal factors.

In addition, workers and supervisors are generally aware of the inspection team's arrival a day or two beforehand. This warning system sometimes creates a preparatory atmosphere before the inspectors arrive. As a result, safety inspectors often observe the workplace and workers on a superficial basis only, and rarely see actual situations causing incidents, injuries and property damage. In order for your inspection team to be effective, they must inspect the workplace during its regular day-to-day status, along with the activities and conditions in which incidents, injuries and property damage could/may occur.

An effective inspection program takes planning, preparation and training. Inspectors must be trained in what to look for, and you require a system that:

- > Maintains consistency of inspections
- > Records and reports any deficiencies to management, the safety committee and supervisors
- > Follows up on and monitors any deficiencies identified

Contractors must ensure worksites are regularly inspected so workers are not exposed to hazards that could endanger their health and safety. **'Housing Provider'** may send a representative to site inspections; the site supervisor will accompany the **'Housing Provider'** representative on the inspection. Contractors are required to correct any hazards and /or unsafe conditions identified during the inspection without delay.

The site inspector shall provide a copy of the Inspection Report to the contractor supervisor and **'Housing Provider'**'s representative working with the contractor. In addition, one copy has to remain posted at the worksite until the items in the report have been corrected.

'Housing Provider' must be advised of any recommendations from inspections/observations that may affect our operations, staff, or property to allow for review by the employer or OHS representative/committee.

Explanation

Meaning: Inspections ensure staff and contractors perform work in a safe manner and maintain the health and safety requirements in the General Site Rules. Inspections can either be a very formal process for larger construction projects, or an informal process for housing providers to check on the contractor, the work and worksite.

Impact: With a formal process, the person conducting the inspection should be accompanied by the contractor and:

- > Document any observed items
- Check that other safety measures are not being compromised (i.e. security or fire egress routes)

Any unsafe situations or conditions should be rectified immediately. If an unsafe condition is not corrected and presents a significant risk, the housing provider can take action, depending on the contract language and contractor safety program.

As the employer, a housing provider can perform a quick inspection at any time, which is best unannounced. Multiple inspections may be necessary if the project is extended for a longer duration.

Additional Knowledge:

Contractors are required to perform their own inspections, ideally daily or routinely.

An employer or employer representative should also conduct inspections. If you have onsite staff, have them perform informal inspections during regular duties.

Chapter 5: General Site Work Procedures

Introduction

Written safe work procedures have a positive impact on safety, health, productivity and quality control.

'Housing Provider' expects contractors to provide workers with safe work procedures that comply with the WorkSafeBC OHSR, as part of your safety program.

Contractors also have to follow specific safety policies and procedures that pertain to your organization and workers, as outlined below.

Explanation

Meaning: The WorkSafeBC Occupational Health and Safety Regulation requires employers to have written safe work procedures. These procedures list necessary steps to perform tasks, instruction, performance monitoring, and accident investigation in the safest way.

Written procedures can also assist in training new workers and serve as a reference for existing employees to sustain a consistent performance level.

Impact: Government health and safety regulations represent minimum requirements. In most cases, organizations will need to augment these regulations with site specific safety rules.

Additional Knowledge: Contractors should adhere to their own safe work procedures, and be aware of applicable housing provider safety policies.

For more information, see WorkSafeBC and the Canadian Centre for Occupational Health and Safety (CCOHS) websites.

5.1 WHMIS

As employers, contractors are responsible for protecting workers from exposure to chemical or biological substances that could cause adverse health effects. Your Workplace Hazardous Materials Information System program must comply with WorkSafeBC WHMIS requirements.

'Housing Provider' maintains an inventory of controlled products on our worksites. If you need more information on WHMIS or Material Safety Data Sheet (MSDS) information on products that workers may be in contact with, please contact your 'Housing Provider' representative.

Explanation

Meaning: WHMIS is designed to inform employers and employees of dangers/hazards associated with the chemicals and biological substances they may come into contact with on the job.

Impact: Key elements of the WHMIS system are cautionary labeling of WHMIS controlled product containers, providing Material Safety Data Sheet (MSDS) information, and delivering worker education and site-specific training programs so workers can operate safely with chemical and biological substances. MSDSs include important information for mixing substances and first aid, if required.

Additional Knowledge: As employers, housing providers and contractors are required to have WHMIS as part of their OHS program, which should include the following instructions:

- Become fully informed of hazard information concerning a controlled product before handling it. Review the MSDS before using any controlled substance.
- 2. Ensure the container label is completely legible and understandable and corresponds to the MSDS for that product.
- 3. Do not decant any controlled substance without ensuring a proper label is placed on the new container.
- 4. Inform your supervisor before using any controlled substance.
- 5. Properly contain and store all controlled substances.
- 6. Clean up and dispose of harmful substances using the method described in the relevant MSDS.
- 7. A housing provider maintains an inventory of controlled products used on sites; contact your contract administrator if you require WHMIS information.

For more information, see the WorkSafeBC Toolbox Meeting Guide, WHMIS Material Safety Data Sheets.

5.2 Noise, Vibration, and Temperature

Contractors have to meet
WorkSafeBC requirements for
noise, vibration and temperature
exposure. Contractors are
required to develop and
implement exposure control
plans for workplace exposure
to temperature extremes, and
administer a noise-hearing
conservation program, when these
conditions exist.

Explanation

Meaning: Repeated, extended, or long-term exposure to noise, vibration and temperature extremes can cause irreversible health effects. In most situations, exposure can be easily prevented. Employers are required to control employee exposure, with an Exposure Control Plan that either eliminates or reduces exposure.

Impact: Preventive work practices need to be applied only when and where the need arises, mostly for housing construction activities.

Additional Knowledge: While these conditions are typically associated with construction and industrial locations, office staff can be exposed too. An example is long-term use of head phones or ear buds with the volume slightly too loud while listening to music, etc., at work.

- > Hearing protection for residential construction
- > How to reduce the risks of hypothermia
- > Heat Exhaustion

5.3 Radiation and Radiofrequency Radiation

Contractors also have to adhere to WorkSafeBC radiation compliance requirements and Health Canada's Radiofrequency Exposure Guidelines. Contractors exposed to these conditions, equipment and telecommunication antennas are required to develop and implement exposure control plans for workplace exposure to radiation.

'Housing Provider' maintains an inventory of radiofrequency radiation on worksites. If you need this information due to your contract requirements, please contact your 'Housing Provider' representative.

For additional information on the hazard of radiation, refer to Chapter 6: Exposure to Hazardous Substances.

Explanation

Meaning: As with any radiation, including radiofrequency, workers will not know they are being exposed until they feel the effects of the exposure. An Exposure Control Plan aims to prevent or minimize exposure.

Impact: Housing typically has just a few sources of exposure/ potential exposure to small doses of radiation. While some sources occur naturally, others will be from products brought onto the property. Sources that pose this risk include:

Naturally occurring:

- > Sunlight exposure for outdoor workers
- > Radon gas from the soil seeping into and accumulating in the building

Products:

- > Smoke/heat alarms/detectors may carry a radio isotope to work effectively
- Carbon monoxide detectors may also carry a radio isotope to work effectively
- Communication antennas use either radio or microwave frequencies that can generate radiofrequency radiation immediately in front of the antenna

Exposure to non-ionizing radiation can cause various health conditions—including skin burns, eye damage, headaches, nausea, heating of body tissue—and could possibly lead to cancer.

Additional Knowledge: As exposure is not something workers can immediately sense, precautions should be taken where appropriate. For example, sun screen can protect workers from UV exposure while working outdoors, and smoke alarm/detection devices with radioactive isotopes can be safely handled with no precautions, as long as the product is in good condition.

Conduct testing to determine whether radon exposure is a concern. Check the following sources for information on the best way to complete the testing: Health Canada's Radiofrequency Exposure Guidelines and Technical Guide for Interpretation and Compliance Assessment of Health Canada's Radiofrequency Exposure Guidelines. Have a qualified person conduct testing on communication antennas to determine if they pose a health risk.

5.4 Personal Protective Clothing and Equipment

Contractors and your workers are required to provide, maintain and wear the personal protective clothing and equipment (PPE) listed in the WorkSafeBC Regulation. For example, snug, well-fitted clothing is worn for protection against the natural elements. Footwear must provide an appropriate level of protection; CSA approved footwear is required for all construction activities. Hard hats are required when there is a danger of head injury from falling, flying or thrown objects, or other harmful contacts. Workers must wear properly fitting safety eyewear appropriate for workplace conditions, if handling or exposed to materials likely to injure or irritate the eyes.

'Housing Provider' may request or require contractors to use specific PPE during the term of a contract.

Explanation

Meaning: Basic PPE consists of workers using suitable clothing and equipment for protection against weather and workplace hazards. Additional PPE may be required for certain work activities and may include, but not be limited to, foot, eye, head, and respiratory protection. Employers are responsible for enforcing the use of all PPE.

Impact: PPE use will depend on the worker's activity. In some cases, PPE is required only for specific activities during a shift, while other work activities require PPE for the entire shift.

While PPE use is often necessary, consider it the last line of defense and use other safeguarding controls whenever possible, such as eliminating the hazard or substituting a less hazardous product or work process, engineering controls, awareness (automated warning/signs), training and safe procedures.

Additional Knowledge: Employers and supervisors need to ensure workers are trained in the proper use and care of PPE for specific work activities. Housing providers may check to confirm that contractor employees have PPE and are using it properly, at any time.

- > Basic personal protective equipment and clothing
- > Eye and face protection
- > Putting on your respirator

5.5 Confined Space Entry

'Housing Provider' has created a Confined Space Program (CSP) to protect the health and safety of personnel who are required to enter a confined space, as defined by WorkSafeBC's Occupational Health and Safety Regulation.

'Housing Provider''s inventory of confined spaces includes places commonly found on the property of buildings and houses, such as vaults, boilers, attics, crawlspaces, maintenance holes and sumps. Identify confined spaces through:

- 'Housing Provider' internal work orders (reminders and notices to contractors to check before entry)
- > Signage at entry points

Before a contractor's worker is permitted to enter a confined space, you have to implement a written confined space entry program that complies with the WorkSafeBC OHSR. In addition, 'Housing Provider' will provide a copy of any existing hazard assessment of the space before entry.

Contractors needing to enter areas **'Housing Provider'** has identified as confined spaces are required to:

- ➤ Gain permit authorization from the Regional Entry Coordinator before entering
- > Follow 'Housing Provider''s Confined Space Program requirements and your company's confined space program

Explanation

Meaning: A confined space—an enclosed or partially enclosed area that is big enough for a worker to enter—can be deadly. While not typical for housing providers, confined spaces may be present in mechanical or service vaults, large boilers, storage tanks, pits and sumps, maintenance/utility holes, etc. These areas are not designed for someone to work in regularly, but may need to be entered for periodic tasks such as inspection, cleaning, maintenance and repair.

Restricted or obstructed openings into a confined space can also increase the difficulty of entry/exit, rescue operations and communication with workers.

Even entering a confined space can be dangerous simply due to atmospheric conditions such as a lack of oxygen or explosive vapor build up. Work activities within and outside the space can pose a serious risk to workers.

Impact: If a housing provider identifies a potential confined space, a qualified person should assess it before a worker enters the area, and a confined space program may need to be developed.

Workers must not enter a confined space until hazards have been identified and they have been trained. All procedures to eliminate or control hazards must be followed.

Additional Knowledge: Housing providers may need to review the buildings you operate and surrounding property to see if any confined spaces exist.

Even if housing provider employees do not enter a confined space, you need to develop a confined space program in case a contractor needs to enter the space. Inform the contractor working in the confined space of any hazards and provide the equipment necessary to perform the work safely.

For more information, see the WorkSafeBC Toolbox Meeting Guide, Confined spaces can be deadly spaces, and the Confined Space Entry Program - A Reference Manual.

- ➤ Identify and resolve any discrepancies between 'Housing Provider"s and your company's confined space programs with our Confined Space Program Administrator (in the event of a discrepancy, 'Housing Provider"s Confined Space Program takes precedence)
- > Provide adequate confined space entry instruction and training to all personnel assigned confined space duties, before starting the entry work
- Have hazard assessments and entry procedure documents prepared by a qualified professional for the confined space work
- Provide 'Housing Provider' with a photocopy of all confined space documentation (including Entry Permits)
- Upon completing an entry, submit a completed permit to the Regional Entry Coordinator

To obtain an Entry Permit, contact 'Housing Provider'

5.6 Lockout

Contractors must develop and implement a Lockout Program and lockout procedures in compliance with WorkSafeBC OHSR requirements to:

- ➤ Ensure affected workers are educated and trained in lockout procedures and ONLY AUTHORIZED workers perform lockout on equipment
- > Follow lockout policies and procedures for maintenance or repairs on a machine, process or system, when potentially hazardous energy or substances could endanger anyone's safety or health

Inform the site supervisor and onsite 'Housing Provider' personnel of the activity before proceeding.

Explanation

Meaning: Electrical safety is crucial with power equipment; when maintenance or repairs are required the equipment should be locked out. Lockout precautions prevent shocks, electrocution and other physical hazards, by preventing equipment from operating.

Impact: Although not common, some occasions arise when equipment requires lock out, especially higher voltage electrical equipment (large circuit panels), mechanical equipment (boilers, heaters) or specialty equipment (solar panel, radio/cell antennas).

Contractors must ensure all power is disconnected before repairing electrical hand tools. When repairing or maintaining equipment that's permanently connected to an electrical supply, contractors must take the following measures:

- > Secure the control device in the **inoperative position** using the locks
- > Ensure locks issued to a worker are operable only with that worker's key and a master key for emergencies
- > Ensure the equipment cannot be operated once locked out
- > Have the worker conducting maintenance remove the lock when work is completed
- > Ensure the site supervisor and site electrician are aware of the maintenance operation

When lockout is necessary, ensure all workers know which individual has the authority to remove the lockout.

Additional Knowledge: The worker who initiates the lockout procedure should remove the lockout, as the only one with a key for that lock. Even if the site supervisor or designated person has the master key to remove the lockout, only use it in an emergency. The worker who initiated the lockout should be required to come back and remove the lock even if they have already left the site.

- > Locking out permanently connected or hard-wired equipment
- > Locking out plugged-in electrical equipment

5.7 Fall Protection

Contractors are responsible for training workers in fall protection measures, as well as fall protection systems and procedures specific to your worksite.

Any contractor or worker working 3 meters (10 ft.) or more above ground is required to use a fall protection system for personal protection. In addition, you must have and be able to provide a written Fall Protection Plan under the WorkSafeBC OHSR, if requested.

Depending on the site location, the contract administrator may have information on roof anchors, equipment or other fall protection measures.

Explanation

Meaning: Workers falling from heights is still very common and can lead to serious injuries, even death. Yet falling from heights can easily be prevented.

Impact: Different types of fall protection are available. Fall restraint systems prevent people from falling. Fall arrest systems stop the fall before hitting the surface below. Before choosing a fall protection system, determine if it's possible to install guardrails or barriers to prevent falls from occurring:

- 1. Guardrails Never work on an elevated floor or platform of any kind where someone can fall 10 feet or more without the protection of a guardrail at the perimeter or around openings. The guardrail must have a minimum 2x4 inch top rail, be 42 inches high, with an intermediate rail at 21 inches high and a four-inch high toe board. Using approved prefabricated steel guardrail sections is also permitted.
- 2. Safety Belts provide fall restraint only. If there's a chance of falling, use either guardrails or a full body harness. Wear the safety harness with the D-ring rope attachment in the middle of your back and the lanyard arranged so the maximum fall is four feet.
- 3. Full Body Harnesses provide fall arrest protection. Wear a full body harness when work cannot be carried out with a guardrail in place, and it's possible to fall 10 feet or more. Always check the fall arrest equipment to make sure it's in good condition. A full body harness must be used:
 - a. On swing-stages or bosun's chairs
 - b. By workers engaged in the flying of slab forms
 - By any worker who may come within six feet of a floor edge or other elevated platform where the guardrail has, of necessity, been temporarily removed

NOTE: The use of a safety harness is not limited to the above locations. Do not take unnecessary chances, and check with the supervisor if in doubt.

Additional Knowledge: Contractors must have a written Fall Protection Plan wherever workers are not protected by guardrails and a fall of 25 feet may occur. Ask to see the plan before entering this type of work area.

- > Fall restraint or fall arrest
- > When to use a full body harness
- **>** Anchors

5.8 Excavation

Before beginning an excavation, locate and identify utility services in the area, such as electrical, gas, steam, water and sewer services. Any danger to workers from these utility services must be eliminated or controlled.

Contact BC One Call, a central agency you can call to find out what is buried on your site. BC One Call provides a 24/7, 365 days a year telephone service at 1.800.474.6886 or *6886 on the TELUS & Rogers mobility systems (to get free airtime). You will be asked to:

- > Provide contact information
- Identify the exact location of your planned excavation
- Identify how deep you will be digging
- Confirm when you plan to begin work
- > Confirm if you are digging on public or private property or both
- > Identify where on the property you will be digging

You can also fax locate requests 24 hours a day to 604.451.0344, or use the BC One Call e-ticket available at www.bconecall.bc.ca. Fax and web requests received after 5:00 pm will be processed the next business day.

You can download an Excavation Site Information form or call BC One Call and request the form be faxed to you.

Explanation

Meaning: Excavation poses two safety risks:

Contacting and damaging an underground utility

Creating soil stability issues either within the excavation or the area surrounding it

Damaging an underground utility can present a hazard and/or cause damage to the worker, other workers/people in the area, utility operations, properties and the environment.

Ensure surrounding ground is stable for workers, operations and equipment for excavations deeper than 1.2 m (4.0 ft).

Review the options and select the best approach to properly slope and/or shore an excavation to avoid cave-ins.

Impact: When performing any digging operations, review safety concerns before work activities commence. Even though the digging is on a housing provider property, utility companies may have underground services crossing your property. A housing provider and/or the Prime Contractor should contact BC One Call well in advance of digging operations to ensure all utilities can respond to the request.

Additional Knowledge: If any damage does occur as a result of not contacting BC One Call, a housing provider and/or Prime Contractor could be held financially liable for corrective actions.

- > Call before you dig
- > Sloping and shoring requirements
- > Trenches and excavations general requirements
- > Additional excavation requirements

When the excavation is greater than 1.2 meters (4 ft.), and less than 6 meters (20 ft.), the walls of the excavation must be at a 45 degree cutback slope, properly shored, or use a trench box. Contractors have to properly position and use a ladder to safely access and egress from the excavation.

Contractors must carry out excavation work in accordance with the written instructions of a professional engineer or professional geoscientist when:

- > The excavation is more than 6 meters (20 ft.) deep, or
- > Support structures other than those specified in the regulation are used in the excavation, or
- An improvement or structure adjacent to the excavation could endanger workers, or
- > The excavation is subject to vibration or hydrostatic (water) pressure

A professional engineer's plan and written instructions to support or slope the excavation sides must include information on expected subsurface conditions. A copy of the plan and any written instructions must be available at the site, signed and sealed by the engineer.

5.9 Tools, Machinery and Equipment

Contractors are responsible for providing their own equipment and maintaining it in safe working order, as required by WorkSafeBC.

Ensure the tools, machinery, and equipment you bring onto 'Housing Provider' sites are in good working condition. All electrical devices must be a minimum three wire and properly grounded. Contractors must:

- Use CSA certified powder actuated tools in proper working order that comply with the WorkSafeBC HSR
- > Ensure only workers who are educated and trained in powder actuated tools work with this equipment
- Ensure all equipment, material and tools are secure at the end of the workday to avoid theft, misuse, or accidents

5.10 Ladders, Scaffolds, Temporary Work Platforms

Contractors must keep ladders, scaffolds, and temporary platforms in good working condition and adhere to WorkSafeBC OHSR specification requirements. If the equipment is damaged or does not meet requirements, you must take it out of service and repair or replace it immediately.

Explanation

Meaning: Contractors need to perform a safety check to ensure tools, machinery and equipment are in place, in good condition, and functioning properly. Do not allow unsafe tools to be used until fixed or corrected. A safety check will help reduce accidents that result in worker injury.

Impact: Check equipment at the start of every project and regularly thereafter. Also recheck equipment if it is knocked over, dropped or experiences a shock. De-energize the device, check for damage, and ensure moving parts remain fastened properly.

Additional Knowledge: Housing providers workers should check tools too; contractors are responsible for tools provided to their staff, which can be part of the regular site safety inspection. During the inspection, check to see that safety equipment like guards, fences and guides are in place. Also check power cords to ensure they are whole and not cut, torn, or spliced.

For more information, see the WorkSafeBC Toolbox Meeting Guides:

- > Power tools and cords
- > Safe use of pneumatic nailing and stapling equipment
- > Safe use of portable circular saws
- > Safe use of radial arm saws
- > Safe use of powered hand drills

Explanation

Meaning: Improper use of ladders, scaffolds and temporary platforms can pose several hazards, including worker falls, tools/ materials being dropped from heights, damage to property, harm to the public, and damage to equipment.

Impact:

Ladder safety

- > Selecting the right ladder is vital; it should extend three feet above the top landing
- Inspect ladders for split side rails, missing or defective rungs and/or missing rung spacers, or any other weaknesses, and take it out of service if defective in any way
- > Never splice two ladders together
- > Use both hands when going up and down ladders; carrying materials up or down a ladder is not permitted
- > Do not work from a ladder beyond the second rung from the top

- > Tie off all ladders at top to keep them secure
- > Job built ladders must be first grade lumber and have 2x4 minimum rails, 1x4 minimum rungs spaced at 12 inches on centre (o.c.), with 1x2 filler pieces between rungs; ladders longer than 16 feet require 2x6 rails

Scaffolding safety

No rolling scaffold shall be higher than three times its least lateral dimension, including outriggers when used:

- > Inspect the scaffold before use to ensure it is in good condition and designed for the safe working load
- > Be sure the scaffold is on solid footing; use proper mud sills, etc.
- Use only sound, full 2x10 structural grade scaffold planking created to prevent slipping
- > Access scaffolds by a proper ladder secured to the frames
- Install a guardrail, intermediate rail and toe boards on all scaffolds and/or working platforms over IO feet high
- > Install all braces
- > Secure scaffold towers at vertical intervals of not more than 15 feet and horizontally not more than 20 feet
- > Ensure the scaffold platform is a minimum 20 inches wide; however, platforms more than 8 feet high must be the full width of the scaffold
- Properly secure or lock together all components of a rolling scaffold
- > Ensure all scaffold wheels have proper braking devices locked when the scaffold is not being moved
- > Do not move rolling scaffolds over 10 feet high with workers on top

When a ladder, scaffolding, or temporary work platform is used, cordon off the immediate area around the equipment and under the working area.

Larger projects will require engineered scaffolding and temporary work platforms. Regular inspections are required to ensure they are in working order.

Additional Knowledge: While ladders are typically used for temporary purposes, work platforms and scaffolding are typically used for longer duration projects. Do not overload/overburden worker platforms. Beware of proximity to overhead power lines, as high-voltage lines can arc and energize the work platform.

- > Setting up a ladder
- > Safe ladder use
- > Scaffold requirements
- > Rolling scaffolds
- > Wood scaffold erection guidelines

5.11 Cranes and Hoists

Contractors working in or around cranes or hoists must ensure the equipment:

Is designed, constructed, erected, disassembled, inspected, maintained and operated by the crane manufacturer or a professional engineer, and

Meets the requirements and standards listed in WorkSafeBC's OHSR

Explanation

Meaning: Cranes and hoisting equipment have specific lifting and reaching capabilities the contractor should not exceed.

Impact: Contractors need to be aware of the following considerations for mobile equipment:

- > Only qualified operators may operate this equipment
- > Equipment must be used and maintained in accordance with applicable WorkSafeBC regulations
- > Operators must inspect the equipment daily before use and report any defects for immediate repair
- Operators must respect the load capacities of cranes and other hoisting equipment and prevent overloading; special attention must be paid to wind load restrictions
- > Ensure the operator sounds the horn for loads passed overhead; report any breaches to the supervisor
- > Do not work in any area with ongoing overhead erection of temporary or permanent materials
- > Ensure the supervisor and hoisting spotter know the operator's whereabouts at all times
- > The hoisting and erection crew must follow these procedures:
 - a. Use a spotter to ensure no one is in the work area before the crane swings a load
 - b. Use barricades in the erection area to keep workers out
 - c. Establish a regular notification process to inform trades where erection work is taking place
 - d. Regularly inspect rigging before each day's hoisting
 - e. Have the erection foreman and crane operator maintain contact via radio

When a crane or hoisting device is in use, cordon off the immediate area around the equipment and under the working area.

Always account for cranes lifting heavy objects, reaching their maximum limits, or operating in high-wind conditions. Many cranes have lost their loads and/or been damaged even in low-wind conditions, when at maximum capacity.

Additional Knowledge: The OHS Regulation requires all operators of boom, tower, and mobile cranes in BC to hold a certificate proving competency.

Operators may ask about ground conditions to ensure they are on solid ground that can support the equipment and load weight. If you have underground building components like parking, know where the perimeter is located to avoid overburdening the roof structure.

5.12 Rigging

Rigging procedures must comply with WorkSafeBC's OHSR, with qualified workers trained and educated in these procedures.

Ensure qualified workers—familiar with the rigging that will be used and the code of signals authorized by the WorkSafeBC Board for controlling hoisting operations—perform or supervise rigging and slinging.

Explanation

Meaning: Moving improperly secured material and equipment can pose a safety hazard and may delay a project.

Securing equipment and materials during transport will ensure safe delivery, storage and installation. Workers should be properly trained and use rigging equipment in good condition.

Impact: Rigging equipment must meet the load capacity of the equipment or material being transported and take into account additional loads that may be applied.

Additional Knowledge: Unless housing provider staff members are performing this duty for transporting or rigging equipment, the contractor or supplier is responsible for properly securing loads.

For more information see the WorkSafeBC Toolbox Meeting Guide, Hand signals for hoist and crane operations, and Part 15 of the Occupational Health & Safety Regulation.

5.13 Mobile Equipment (vehicles, scissor lift, booms and giraffes)

Contractors are responsible for:

- > Ensuring all mobile equipment meets the requirements of the Motor Vehicle Act or the Industrial Roads Act
- Maintaining mobile equipment in a safe operating condition, in accordance with applicable regulations
- Keeping maintenance records for any equipment service, repairs or modifications
- Adequately instructing all workers operating the equipment in its safe use, and ensuring demonstrated competency in operating the equipment
- Protecting workers when moving equipment and from the equipment's moving parts
- Allowing only authorized workers to operate mobile equipment

Explanation

Meaning: Mobile equipment and/or heavy equipment are simple to operate and offer many mechanical advantages, but present potential hazards to workers and the public if not safely operated (being run over, physical injury, fuel/oil spills, potential crushing, fall hazards, etc.).

Impact: Only qualified, certified operators can operate the equipment

- > Operators must inspect equipment daily before use and report any defects for immediate repair
- Operators must respect the load capacities of hoisting equipment and prevent overloading
- > Guardrails and safety chains must be in place
- > Toe boards must be in place
- > Safety belts or harnesses and lifelines must be used and kept clean
- > The base of the unit may only be repositioned with the platform in the fully lowered or stowed position, unless the operator has confirmed the supporting surface is firm, level, clear of depressions or obstructions, and wheels/outriggers are contacting the ground
- > If a unit is fitted with outriggers, it must be equipped with notices indicating the circumstances under which the outriggers must be used

- > Ensuring lifting devices have appropriate clearance with any overhead obstacles
- Ensuring personal vehicles are parked in designated areas only
- > Carrier vehicles for elevated work platforms must be immobilized against inadvertent motion before workers occupy the platform
- > Scissor lifts must be guarded when workers could inadvertently come into contact with moving parts of the lifting mechanism
- > Vehicle-mounted giraffes or self-propelled, boom-supported elevated work platforms must undergo non-destructive testing at least every 24 months
- > Elevating work platforms must have an emergency stop button on the platform and an emergency lowering control
- > Elevating work platforms must be fitted with a warning system for forward, reverse, and up and down motions
- > Self-propelled elevating work platforms (except truck-mounted platforms) must be fitted with tilt angle indicators or warning devices, as described in the WorkSafeBC OHSR
- > Operators must not permit anyone to ride on the hook or load of forklifts, front end loaders, wagons, etc.
- > Whenever vision is obstructed, including vehicles backing up, use a competent signal person; back up alarms or beepers are required on vehicles
- > Wear a high visibility vest at all times when heavy equipment is in the area

Most of this equipment is typically used for new construction or building exterior work applications. However, additional precautions should be taken if this equipment is operated indoors.

Cordon off the area around and under the work platform to prevent workers and the public from accessing that area.

Additional Knowledge: WorkSafeBC has many regulations for operating mobile equipment. Scissor lift, boom, and giraffe operators must follow applicable vehicle and mobile equipment safety rules.

- > Working safely with mobile equipment
- > Self-propelled boom lifts
- > Self-propelled scissor lifts

5.14 Electrical Safety

Contractors are required to inform workers of existing onsite electrical hazards before starting work, including any new electrical hazards that may develop during a 'Housing Provider' contract.

Contact 'Housing Provider' before digging to ensure underground power and/or services have been adequately identified to prevent accidental contact.

Explanation

Meaning: Electrical safety and precautions prevent shocks, electrocution and other physical hazards by preventing equipment from operating. Electrical safety is important working with electric tools and near power lines.

Impact: The contractor should be aware of general electrical safety including:

- > Electrical equipment must be installed, repaired or removed by trained, authorized personnel only
- All electrical tools and equipment must be effectively grounded or double insulated
- Power cords must be minimum three-wire, effectively grounded with U-ground or twist-lock plug caps, with receptacles intact and maintained in good condition; notify the foreman early if maintenance is required
- > Temporary Distribution Panels must be fitted with weather tight covers and be located in a clear area where water will not accumulate

If you observe contractor equipment with damaged, worn-out, improperly repaired and/or spliced electrical components, instruct the contractor to replace it or repair the equipment before further use

Additional Knowledge: For more information, see the WorkSafeBC Toolbox Meeting Guide, Overhead high-voltage electricity.

5.15 Housekeeping

Keep the work area clean and free of loose materials and debris. Safely and neatly stack any materials stored at the workplace and do not block fire egress routes. Collect and place all waste in appropriate waste containers every day. Remove or bend over any protruding nails or screws from waste materials; place them in scrap containers for disposal.

Explanation

Meaning: This section reinforces the OHSR standard to keep work areas clean and emergency escape routes clear at all times, as an unclean work area could develop into a potential hazard. Cleaning is typically completed at the end of the day or job.

Contractors often need to bring equipment and materials into the work area. Stacking and storing these items can be difficult in tight spaces, especially if removing an item. Check to see that contractors have stacked items neatly so as not to block egress or emergency routes.

Impact: Contractors should:

- > Ensure workers keep their areas clean and free of loose materials and debris
- > Stack materials not in use neatly out of the way
- > Put rubbish and waste materials in scrap containers and remove them from the site daily
- Withdraw or bend over all protruding nails in form lumber before transporting or stacking for reuse; put nails in scrap containers for disposal
- > Keep lunch and storage trailers, toilets and drinking water facilities clean and sanitary

Additional Knowledge: Contractors should perform regular, basic housekeeping as part of the project work. If you observe an unsafe condition, bring it to the contractor's immediate attention for correction.

For more information, see the WorkSafeBC Toolbox Meeting Guide on Housekeeping.

Chapter 6: Exposure to Hazards

Introduction

Many hazardous substances and situations may be encountered at the workplace. If not properly identified and assessed, these hazards have the potential to expose workers to serious injury or occupational disease.

Explanation

Meaning: Workers exposed to hazards can have immediate to long-term health effects. The severity will depend on the hazard and amount and duration of the exposure. A hazard is anything that can hurt workers or make them ill, including biological hazards, hazardous materials, and physical hazards.

Impact: Employers should review job duties and ensure safety precautions are put in place to protect workers, residents and the public whenever hazards are present.

Additional Knowledge: Not all of the hazards listed in this chapter may be a concern for a housing provider. However, housing providers need to review whether the hazards listed below are present or could be present. You can retain a safety professional to conduct a survey to determine the presence of hazards. If present, a housing provider is required to develop a hazard program to protect employees from injury and/or exposure.

All hazard programs should actively manage hazards and include, but not be limited to, an:

- > Exposure Control Plan (ECP) and safe work procedures
- > Inventory and identification of materials
- > Labeling systems
- > Emergency response
- > Provision for reassessment (additional sampling)
- > Worker training and education

6.1 Types of Hazards

Hazardous substances fall into three categories: biological, hazardous materials, or physical, which may include but are not limited to:

Biological

- > Bodily fluids
- > Mould/Bacteria/Viruses

Explanation

Meaning: Biological hazards such as bodily fluids and mould/bacteria/ viruses are present in many work places. Blood and certain body fluids can be infected with microorganisms, known as blood-borne pathogens, which can cause disease in humans.

Large quantities of mould spores can develop in buildings and cause respiratory difficulties or hay fever-like symptoms. Disturbing or removing the mould will have similar effects.

Bacteria and viruses can spread easily through direct contact/ exposure, or indirectly by touching contaminated materials or surfaces.

Impact: Workers in uncontrolled outdoor areas or places accessible to the public (even in controlled spaces) sometimes find used needles and condoms in their work areas. These items are often thrown away in parks, streets, alleys, empty lots, plants and washrooms, and can carry HIV and hepatitis B and C.

Performing repairs on sinks, toilets and sewage pipes and laying pipe in soil can expose workers to human pathogens such as bacteria and parasites.

Workers can become infected by bacteria and viruses by breathing them into their lungs, contact with broken skin, or by transfer (touching an infected person/item and then touching their mouth, nose or eyes, or even someone else.)

Plumbers need to pay extra care and attention to avoid contamination by biological hazards, and to clean up according to written work procedures if contamination occurs.

Additional Knowledge: Mould growth does not normally develop within a building unless moisture is present for a long time.

Most workers won't ever come into contact with blood and body fluids that can spread HIV and the hepatitis B and C viruses. Nevertheless, workers need to be aware of safe work procedures, even in a setting where contact is unexpected. Workers should also be aware of typical locations of potential exposure.

Housing providers should develop basic precautions, as it is possible to become infected from a single exposure incident with infected blood or body fluids.

Hazardous materials

- Asbestos
- **>** Chemicals
- > Lead
- > Mercury
- > Pesticides and fumigants
- > Radiofrequency radiation
- > Radon
- > Silica

Meaning: Hazardous materials may be present in building materials or products in older buildings. Most of these materials are generally considered safe when exposure is prevented or the materials are in good condition and remain undisturbed. However, hazardous materials present a health risk if workers are exposed to them.

Most hazardous materials are contained within the product, such as mercury within thermostat vials, or secured within the material, such as asbestos-containing gypsum board.

Worker exposure to hazardous materials should be prevented by controlling disturbance or emergency clean up.

Impact: Many common building materials and products were manufactured to contain hazardous materials that were reliable, improved product performance, provided durability and were cost-effective, such as:

- > Asbestos was used in many construction products
- Chemicals are often used in buildings as janitorial and cleaning supplies
- Lead was used as sound baffling, in mechanical services, and paint products
- > Mercury can be observed in older mechanical products like suite thermostats and boiler gauges
- > Radiofrequency radiation may be a concern if communication antennas are present and operate at higher frequencies
- > Radon is a naturally occurring element that seeps into a building through cracks/openings in the foundation slab and walls
- > Silica is commonly found in cement and concrete products

Additional Knowledge: Exposure to hazardous materials can result in health problems, such as irritation of the eyes, sensitization of skin or lungs, heart ailments, kidney damage, lung damage, and can even lead to cancer.

When improperly stored or handled, some hazardous materials can cause fires, explosions or other accidents.

Physical

- > Animals
- > Cold stress/Hypothermia
- > Heat stress/Hyperthermia
- ▶ Noise
- > Violence in the Workplace
- > Working Alone

Meaning: Physical hazards—unsafe conditions that can cause injury, illness and death—are the most common workplace hazards. Physical hazards can include direct interaction between two parties, either another person or animal; stresses to the body like being exposed to hot/cold or noisy environments; and working alone should a worker need help.

Impact: Physical stressors can be foreseen, with appropriate preventive actions taken by workers, especially in an outdoor or noisy environment.

Violence in the workplace, however, can occur with little to no warning. A housing provider should inform workers of any precautions or procedures needed to reduce or eliminate the possibility/threat of workplace violence.

Additional Knowledge: Harm reduction strategies can reduce the risk of workplace violence.

A housing provider is expected to inform contractors of any known hazards, and provide assistance where possible to reduce the potential for a physical hazard.

Contractors are expected to protect and instruct workers to prepare appropriately for hot/cold or noisy environments.

6.2 Working with Hazardous Materials

Exposure Control Plan

Under the WorkSafeBC OHSR, contractors require an Exposure Control Plan when workers risk exposure to a hazardous substance or situation in the workplace. The plan may be simple or complex, depending on the hazardous substance and/or size of the contract. An Exposure Control Plan should contain work procedures specific to the hazardous exposure location, with step by step instructions defining what is required to reduce exposure.

Here is a general list of items requiring contractors to implement an Exposure Control Plan:

- > OHSR 5.57 Controlling
 Exposure If it is not
 practicable to replace
 a material referred to
 in section 5.57(1) of
 the WorkSafeBC OHSR
 (designated substances)
 with a material that reduces
 risk, the employer must
 implement an Exposure
 Control Plan
- OHSR 6.3 Asbestos If a worker is or may be exposed to potentially harmful levels of asbestos
- > OHSR 6.34 Biological Agents – If a worker is or may be exposed to biological agents such as bodily fluids

Explanation

Meaning: WorkSafeBC requires employers to develop an Exposure Control Plan when workers perform activities involving biological and/or hazardous materials to protect them from injury, exposure, or potential exposure. The ECP explains work procedures and other controls used to reduce, eliminate and control risk of exposure. Without an ECP, workers could be injured, exposed or potentially exposed from routine work activities, an incident or an emergency.

Some types of controls are more effective than others; here is the hierarchy of control measures:

- > Substitution, using safer materials,
- > Engineering controls,
- > Administrative controls, and/or
- > Personal Protective Equipment

Impact: Each workplace is unique, so an ECP should be specific to the operation and developed by a qualified person who is:

- > Knowledgeable about WorkSafeBC regulations,
- > Capable of reviewing workers' job duties, and
- > Able to observe any potential risks while duties are performed

Workers will have duties that fall outside the ECP; the plan is not inactive during these tasks, but must come into effect when working near or with a hazard. The ECP and associated documents should also give workers information required to respond to an emergency.

Additional Knowledge: Housing providers need to develop an ECP as well, as part of your occupational health and safety program, to inform maintenance staff or contractors how to handle hazardous materials if they must be disturbed. A risk assessment will be required as part of developing the ECP safe work procedure.

WorkSafeBC has created an online sample Asbestos Exposure Control Plan.

- > OHSR 6.60 Lead If a worker is or may be exposed to lead in excess of 50% of the exposure limits, or if exposure through any route of entry could result in elevated lead bodyburdens, as defined by WorkSafeBC
- > OHSR 7.20 Ionizing and Non-ionizing Radiation – If a worker exceeds or may exceed an applicable action level for ionizing or nonionizing radiation
- ➤ OHSR 7.29 Heat Stress

 If a worker is or may
 be exposed to thermal
 conditions which could
 cause heat stress
- ➤ OHSR 7.34 Cold Stress

 If a worker is or may
 be exposed to thermal
 conditions that could cause
 cold stress or injury

If any of the preceding conditions applies to work the contractor is performing, 'Housing Provider' may request a copy of your Exposure Control Plan and safe work procedures to review before work begins.

This statement informs the contractor of the requirement to document these hazards, make a copy available at the job site for you or WorkSafeBC to review, and provide training before beginning work.

An Exposure Control Plan must include a:

- > Statement of plan's purpose
- Statement of the supervisors, workers and other individuals' (when required) responsibilities
- Hazard identification and risk assessment of all hazardous substances associated with the job/ task/procedures being performed
- Site control measures required to reduce the risk of overexposure and health monitoring, when required
- > Waste disposal procedures
- > Worker education/
 training to ensure
 workers understand the
 risks of exposure; can
 competently use and
 maintain exposure control
 equipment; understand
 other control measures (e.g.
 administrative controls);
 and inspect, use and clean
 PPE and are aware of its
 limitations
- Written work procedures for safe handling of hazardous substance(s) or operating control measures
- > Description of hygiene facilities, as applicable, in accordance with relevant Material Data Safety Sheets and supplier labels
- Description of worker and equipment decontamination procedures, as applicable
- > Records of documentation

Meaning: WorkSafeBC dictates the information required in an Exposure Control Plan to provide a consistent approach for workers, supervisors and inspectors.

The Exposure Control Plan must incorporate the elements outlined in this section and provide overarching principles, practices and procedures. The ECP contains all the information workers need on their roles and responsibilities to protect against exposure, plus employer approved strategies for eliminating or reducing the risk of exposure.

Impact: Contractors must develop and implement an ECP when:

- > Exposure monitoring under OHSR section 5.53(3) indicates a worker is or may be exposed to an air contaminant in excess of 50% of its exposure limit,
- > Measurement is not possible at 50% of the applicable exposure limit, or
- > Otherwise required by this regulation

Again, each workplace is unique, so an ECP should be specific to the operation.

Additional Knowledge: Contractors need to review work activities to ensure the ECP meets your requirements, as one ECP may be good for a particular project but may not meet the needs of another, and may in fact be detrimental.

An ECP may also require changes to current business practices, work activities and resources. While these changes can increase the time it takes to perform activities, they will protect workers from deleterious health effects.

6.3 Hazard Control/Safe Work Procedures

The WorkSafeBC OHSR recognizes some substances are more hazardous than others; consequently, these substances have additional regulatory requirements. Each contractor is responsible for being in compliance with all relevant parts of the OHS Regulation.

Contractors who disturb or work with hazardous substances must develop safe work procedures for specific hazards, by documenting:

- How to perform the work safely
- > Health precautions to be aware of
- > Control measures to contain the hazardous material
- > Safety equipment required
- > PPE required
- How to store and dispose of materials
- > How to set up the area and how to clean up when the work is complete

The following workplace risks require elimination or control procedures to ensure worker safety:

Explanation

Meaning: Employers must implement hazard control measures to protect workers from exposure or injury with an Exposure Control Plan (see previous section) and safe work procedures. Safe work procedures are self-explanatory: they describe how workers can carry out specific tasks safely and efficiently to avoid injury or exposing themselves, other workers, the public and the environment. In general, safe work procedures are written for:

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

While the procedures may seem like a checklist, they aren't. Instead, safe work procedures should provide a single reference document for workers on:

- > Training
- > Reminders and warnings
- > Materials, equipment and tools needed
- > Personal Protective Equipment
- ▶ Notifications
- > Work preparation and clean up
- > Work activities (how to perform the work)

Impact: For the purposes of this guide, safe work procedures are intended for the identified hazards.

Multiple safe work procedures may be required for a single hazard. For example, if asbestos is present in gypsum board, many procedures may be required, one to install/remove fasteners, and others for cutting a small opening, removing medium or large quantities, and emergency clean up or repair.

Keep procedures at the worksite for worker use, review and reference. Contractors should be able to provide a copy upon request.

Additional Knowledge: For larger projects, make procedures available to workers either in hard copy or electronic versions. Smaller projects can provide procedures in a binder or folder at the site.

A housing provider needs to ensure staff members receive training in safe work procedures; contractors have to demonstrate their workers have been trained.

When submitting a Notice of Project to WorkSafeBC, submit the safe work procedures at the same time.

Asbestos-Containing Building Materials

'Housing Provider' maintains an inventory of all materials tested for the presence of asbestos fibres in our buildings, and we continue to add to this inventory.

Contractors and subcontractors are responsible for checking the inventory by contacting **'Housing Provider'** to ensure you do not disturb asbestoscontaining materials (ACM) without safety precautions.

If you think the contract work may disturb suspected ACM, arrange for additional sampling or contact the 'Housing Provider' representative.

If asbestos-containing materials are present, contractors must comply with the WorkSafeBC OHSR related to working safely with asbestos, and have written safe work procedures for working with, removing and disposing of asbestos-containing building materials.

Meaning: Asbestos is a naturally occurring mineral that was mined and added to over 3,000 building products in the 1950s and 1960s to improve durability, flexibility, weathering, and chemical, fire, electrical and UV resistance. By the mid-1980s, bans were in place restricting the manufacture of asbestos-containing materials (ACM). Asbestos is a generic term for a group of fibrous silicate minerals.

Workers can be exposed to airborne asbestos fibres from disturbing (ACM), when buildings undergo repairs, renovations, or demolition.

Before 1990, many buildings were constructed with ACM that may still be present. While not typical, a few properties constructed as late as 1992 and 1993 have been found to contain an asbestos product.

Note: WorkSafeBC's regulations DO NOT state a date when a building is no longer required to be surveyed for ACM.

Here is a list of some friable and non-friable ACM products typically found in buildings constructed before 1990; friable material can more easily generate airborne fibres than non-friable when disturbed:

Friable Products

- > Ceiling and wall texture
- > Damaged gypsum board compound
- > Mechanical (boiler or pipe) insulation
- > Paper products
- > Sheet flooring (ACM paper backing)
- > Sprayed or trowelled fireproofing or insulation
- > Vermiculite insulation

Non-Friable Products

- > Caulking and sealants
- > Cement products
- > Drywall joint compound
- > Floor tile
- > Friction materials (e.g. brakes)
- > Gaskets and packings
- ▶ Mastic
- **>** Plastics
- ➤ Textiles

Impact: The health effects from exposure to airborne asbestos fibres can include asbestosis, lung cancer, and mesothelioma. Developing an illness depends on many factors, including the friability of the material.

To prevent worker exposure, have a qualified person survey the building and collect samples of suspected hazardous materials, including asbestos, for laboratory testing. If testing confirms ACM, develop an inventory listing which materials contain asbestos and which do not, as part of an asbestos management program, so workers know when additional precautions are required.

Before the survey, discuss some common business practices that can make it difficult to test for ACM:

- > **Flooring** New flooring, and possibly underlay, is often installed over old flooring. Both need to be sampled.
- > **Drywall** Sometimes drywall is installed over older drywall, plaster or even brick. If this is the case, the substrate material may need to be sampled as well.
- Ceiling cavities Suspended ceilings may have been installed to cover an old ceiling. Check to determine if so and test the old materials.
- > Mechanical upgrades Old pipe insulation may have been removed or recovered during an upgrade. Check to see if old insulation was abandoned in the wall cavity; it may look the same as the new pipe insulation.

With multiple layers of a material, if either layer is positive for asbestos, any work requires safe asbestos procedures.

If an asbestos management program is required, it should include, but not be limited to, an:

- > Exposure Control Plan and safe work procedures
- > Inventory and identification of materials
- > Labeling systems
- > Emergency response
- > Provision for reassessment (additional sampling)
- > Worker training and education

Whether you implement moderate or high risk precautions and work procedures for disturbing ACM will depend on the scope of work, the material being disturbed, and the quantity of the material.

A housing provider should label ACM for identification, once an asbestos management program is developed. However, labeling ACM in public areas may cause concern. Labeling non-public locations only is preferable, as long as workers have access to the complete inventory.

Additional Knowledge: BC Housing has developed a three-step compliance process to help housing providers determine if asbestos is present and, if so, how to develop a program and provide worker education and training. You can review this information on BC Housing's website. For more information, review the following WorkSafeBC publications:

- > Health Hazards of Asbestos
- > Asbestos Removal
- > Safe Work Practices for Handling Asbestos
- > Asbestos Hazards in Demolition, Renovation, and Salvage

Lead-based Paint and Other Lead Products

Depending on the age of the building, lead may be present. Before performing any work that might disturb suspected lead-containing materials, conduct a survey to determine if lead is present. If so, implement a safe work procedure before disturbing the materials. **Meaning:** With housing, the most common exposure to lead for workers will be from lead-based paints and plumbing/mechanical parts. Lead was used as a soft, pliable, corrosion-resistant metal. Until the 1980s, lead was regularly added to paints to increase their durability, colour range, and drying ability. Lead-containing paints do not pose a hazard as long as intact and in good condition.

Health risks occur when lead paints chip or peel and are scraped or sanded, as lead dust is released and can be inhaled by workers and others. Lead can build up in the body and cause short and long-term health conditions.

Impact: Anyone exposed to lead should take safety precautions. However, pregnant women, infants and children are generally considered to be at higher risk than adults for health problems from exposure.

Exposure can result in both early and later signs of a high lead level. Longer exposure can affect the brain, many body systems (nervous, reproductive, digestive), kidneys, and the body's ability to make blood. Lead may be a carcinogen as well.

To prevent worker exposure, have a qualified person survey the building and collect samples of suspect materials for laboratory testing. Similar to asbestos, develop an inventory of sampled paint products and indicate which paints contain lead so workers can take additional precautions.

If lead is present, a housing provider should ensure the safety of staff and contractors by developing a safety program, using the same approach for lead as for an asbestos management program (see previous section).

Additional Knowledge: Some paints may still contain lead above the threshold level for durability on mechanical parts, heavily contacted areas, and fire protection products like fire doors.

With repainting of walls and ceilings, housing providers may have several coats of lead free paint over an old lead paint. In these situations, exposure is more of a concern during renovations or demolition.

For more information, see the WorkSafeBC publication, Lead-Containing Paints and Coatings

Mercury in Switched and Light Materials

Mercury may be present in a building, depending on its age. Before performing any work that might disturb suspected mercury-containing materials, conduct a survey and, should mercury exist, implement a safe work procedure before disturbing the materials.

Meaning: Mercury may be present in boiler/mechanical equipment, suite/building thermostats, and fluorescent light tubes including compact florescent light bulbs (CFLs). Mercury inside fluorescent light tubes makes the lights operate; older tubes may have more mercury than newer tubes. Even CFLs contain a small amount of mercury to operate, even if listed as mercury free. Mercury can affect human health though skin contact, ingestion, and inhaling mercury vapor.

Impact: Whenever older devices are being replaced, workers need to take precautions to safely handle, transport and store the materials until disposal, and avoid exposing or spilling mercury. If mercury devices are present, a housing provider should develop a program to instruct workers on safe handling, using the same approach for mercury as for an asbestos management program (see the earlier section on asbestos). Keep a mercury spill kit at the worksite to properly clean up small to moderate mercury spills, if they occur.

Dispose of fluorescent light tubes and CFLs by taking them to a recycling station.

Additional Knowledge: Whenever possible, replace older equipment with newer non-mercury devices to remove the hazard.

Remind residents not to dispose of CFLs, to recycle them instead.

For more information, see the WorkSafeBC publication, Cleanup Procedure for Minor Mercury Spills.

Mould Growth on Building Materials

Depending on the work you're performing, you may locate mould growth that was not identified earlier. In this event, please inform 'Housing Provider' and develop a safe work procedure to follow, consistent with the New York City Department of Health protocol guidelines adopted by the Canadian government.

Meaning: Mould spores are part of the natural environment, but can pose a health concern indoors due to the type of mould and its concentration. The word mould is a generic term for various fungi. Some fungi grow into edible mushrooms, while others such as the penicillium genus are used for medicines like penicillin and can create an indoor air quality issue.

Mould does not normally grow in buildings, as it needs food (gypsum board, wood, dust, soil, etc.), moisture and warmth. If you observe mould growth, investigate quickly because it indicates another larger problem, the presence of water.

Impact: If mould is observable, take appropriate clean up measures. The bigger issue is determining the moisture source and fixing the water accumulation. Even a small constant drip over a short period of time can cause large problems.

Until the moisture can be corrected, prevent exposure by:

- > Isolating the mould growth with plastic sheeting
- > Cleaning the affected area thoroughly (mould will re-grow on soft and non-porous materials)
- > Removing, if possible, the affected material (do not replace the material until the moisture problem is resolved, as mould will start developing on the new material)

A small amount of mould growth on painted gypsum board is typically a sign of surface contamination that can be easily cleaned, but can indicate a much bigger problem on the backside of the board.

If mould is allowed to grow or is not cleaned up properly, workers can experience allergy symptoms, and people with asthma or other respiratory illnesses can experience respiratory attacks or other reactions.

A housing provider should consider the following factors for mould clean up or remediation in mould contaminated materials:

- > Size of each visible observable location,
- > Material impacted (porous or non-porous), and
- > Other hazards (asbestos)

Here is an overview of the New York Protocol for mould remediation; workers require safe work procedures to follow:

Small Isolated Areas, <1 m² (<10 ft²)

- > Can be performed by trained workers
- > Respiratory protection (N-95 disposable respirator)
- > Unoccupied work area
- Cover soft and porous surfaces with polyethylene sheeting vapor barrier
- > Dust suppression
- > Clean materials with soap or detergent solution
- > Decontaminate worker and area
- > Dispose of waste

Medium-sized Isolated Areas, 1-10 m² (10-100 ft²)

- > Can be performed by trained workers
- ➤ Respiratory protection (N-95 disposable respirator or + mask)
- > Unoccupied work area
- > Isolate the work area with polyethylene sheeting vapor barrier (floor, walls and ceiling)
- > Isolate ventilation
- Dust suppression
- > Clean materials with soap or detergent solution
- Decontaminate worker and area (HEPA-vacuumed)
- ▶ Dispose of waste

Large-sized Isolated Areas, >10 m² (>100 ft²)

Leave contaminated areas of this size to professionals with the requisite training, equipment, and experience cleaning mould. Similar to items listed for medium-sized isolated areas:

> Work area isolation requires additional actions

➤ Respiratory protection (½ mask minimum, full face mask or Powered Air Purifying Respirator (PAPR) required)

Decontamination chambers with shower facilities are required

Additional Knowledge: Although mould growth is preventable in buildings, it is still very common in Canadian households.

Where applicable, housing providers should help residents control moisture within their suites through education (on personal cooking and cleaning habits) and reminders to use exhaust fans and dehumidistats to help remove moisture from the suite.

For more information see:

- ➤ New York Protocol: Guidelines on Assessment and Remediation of Fungi in Indoor Environments
- > Canadian Construction Association: Mould guidelines for the Canadian construction industry
- ➤ US Environmental Protection Agency: Mold Remediation in Schools and Commercial Buildings

Needles and Sharps

Depending on the worksite, needles and sharps may be present. Follow safe work procedures for removing and disposing of these items, in accordance with the WorkSafeBC OHSR.

Meaning: Workers may encounter sharps while performing duties, such as needle devices/syringes, scalpels, lancets, broken glass, razor blades or any other device that could penetrate the skin. Workers need to be careful working around needles and sharps to avoid being pricked, as they can pass bacteria and viruses into the body.

Impact: If needles and sharps are found regularly, instruct workers in safe handling and disposal of these items. Sharps containers are easily obtained to safely store and dispose of any needles found in the workplace.

Potential harmful exposure occurs when:

- > A worker's skin is punctured with a contaminated sharp, or
- Non-intact (broken) skin is splashed with blood or certain body fluids, or
- Mucous membranes (eyes, nose, mouth) are splashed with blood or certain body fluids

If any of the above circumstances occur, take the following steps:

- > Get first aid immediately
- > Report the incident
- > Seek medical attention immediately
- > Complete the WorkSafeBC claim form

Additional Knowledge: A safety program may be needed to protect workers and the public if sharps and needles are a common occurrence in the workplace. In some cases, providing a sharps disposal container in a discreet location may be enough to combat the risk.

Instruct staff members to carefully check any outside work areas where sharps could be hidden or discarded, before inserting their hand.

For more information, see the WorkSafeBC publication, Controlling Exposure: Protecting Workers from Infectious Disease.

WHMIS Products

'Housing Provider' staff
members have access to
a WHMIS database of all
controlled products 'Housing
Provider' uses. You can obtain
copies of Material Safety Data
Sheets through your contract
administrator.

Meaning: The Workplace Hazardous Materials Information System provides health and safety information on specific workplace hazardous materials called controlled products. This system reduces the likelihood of injury and disease through exposure to hazardous materials. WHMIS has developed a classification system with six hazard classes:

- > Class A: Compressed Gases
- > Class B: Flammable and Combustible Materials
 - 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
- > Class C: Oxidizing Materials
- > Class D: Poisonous and Infectious Material
 - Division 1: Materials causing immediate and serious toxic effects
 - Division 2: Materials causing other toxic effects
 - Division 3: Biohazardous infectious materials
 - Class E: Corrosive Materials
 - Class F: Dangerously Reactive Materials

Once a product has been classified, WHMIS uses three methods to communicate health and safety information:

- > WHMIS labels
- > Material Safety Data Sheets
- > WHMIS education and training programs

Impact: Employers must use WHMIS, as well as information specific to the workplace, to educate and train workers to work safely with and near hazardous materials. Workers need to read product labels or MSDSs. Employers are required to have a central repository for MSDSs at the workplace.

Additional Knowledge: Contractors and housing providers must be able to provide proof of workers completing WHMIS training.

Suppliers are required to provide MSDSs. If not received when the product is delivered, contact the supplier. Have the product information available to ensure you received the correct MSDS. Most suppliers now have MSDSs available online for easy reference.

For more information, see these WorkSafeBC publications:

- > WHMIS at Work
- > WHMIS Core Material: A resource manual for the application and implementation of WHMIS

Ozone-depleting Substances

Depending on the age of the building, ozone-depleting substances (ODS) may be present. Before performing any work that might disturb suspected ozone-depleting substances, conduct a survey. If found, implement a safe work procedure before disturbing these materials.

Polychlorinated Biphenyls

Again, depending on the age of the building, polychlorinated biphenyls (PCBs) may be present. Before doing any work that might disturb materials suspected of containing PCB substances, conduct a survey. If present, implement a safe work procedure before disturbing the materials.

Meaning: Ozone-depleting substances are chemicals like chlorofluorocarbons (CFCs) contained within a closed mechanical system. When released from the system, ODS can be hazardous to workers and the environment.

Ozone-depleting substances have been used in fire suppression for commercial/industrial applications, as well as coolants for fridges, freezers and HVAC (heating, ventilation and air conditioning) units. Although uncommon in social housing, ODS are found periodically.

Impact: Devices found to have ODS can continue to function without concern. If the device requires repair or replacement, workers need to take appropriate measures to prevent ODS release. Only trained workers should work with components containing ODS.

Additional Knowledge: If ODS are present in the workplace, a housing provider staff would not typically deal with them. Instead, use a qualified, trained worker to perform a necessary repair or remove the ODS at the time of disposal.

Most new equipment has substituted other, safer substances for ODS.

Meaning: Polychlorinated biphenyls have been linked to environmental toxicity. Direct exposure has shown to cause cancer in animals; the evidence is unclear whether humans are similarly affected.

PCBs were widely used as dielectric and coolant fluids in devices like transformers, capacitors and electric motors. In residential construction, fluorescent light ballasts manufactured up to or before the 1980s are the most common product containing PCBs; less likely would be an old transformer on the property.

Impact: If a device contains PCBs and is still in good condition (i.e. the liquid PCB is not leaking), it can remain in place until the end of its service life. Under federal law, replacement must be with a non-PCB containing device.

A device containing PCBs must be safely disposed of at an authorized facility.

Additional Knowledge: Newer devices like light ballasts may be stamped with a non-PCB label for easy reference. Older devices may or may not state what chemical was used. Often the only way to determine if a device contains PCB is to look up the manufacturer date stamp and refer back to the manufacturer list explaining the date stamp code.

For more information see:

Environment Canada: Identification of Lamp Ballasts Containing PCBs

Light Recycle: Identifying PCB-Containing Lighting Ballasts

Radiation

Two common types of radiation sources may be found in residential housing, radioactive materials and radiofrequency (RF) radiation.

Radioactive Materials in Smoke Detectors

Radioactive materials may be present in smoke detectors, depending on the age of the building. Again, conduct a survey before performing any work that might disturb suspected radioactive materials in smoke detectors. If found, implement a safe work procedure before disturbing the materials.

Radiofrequency Radiation

Communication antennas are located on some BC properties, especially high-rise buildings. The antennas generate a range of radiofrequency radiation, some of which can be harmful to human health.

Safety Code 6 is one of a series of safety codes prepared by the Consumer and Clinical Radiation Protection Bureau, Health Canada. These safety codes specify the requirements for the safe use of, or exposure to, radiation emitting devices. The purpose of this code is to establish safe limits for human exposure to radiofrequency electromagnetic energy in the frequency range from 3 kHz to 300 GHz.

Meaning: Exposure to non-ionizing radiation can cause various health conditions including skin burns, eye damage, headaches, nausea, and heating body tissue, and could possibly lead to cancer.

As with any radiation, including radiofrequency, workers will not know they are being exposed until they feel the effects of the exposure.

Impact: Housing typically has only a few sources of exposure and potential exposure to small doses of radiation:

Naturally occurring:

- > Sunlight exposure for outdoor workers
- > Radon gas from the soil seeping into and accumulating in the building

Products brought onto the property:

- > Smoke/heat alarms/detectors may carry a radio isotope
- > Carbon monoxide detectors may also carry a radio isotope
- > Communication antennas use either radio or microwave frequencies that can generate a radiofrequency radiation immediately in front of the antenna

Additional Knowledge: Precautions should be appropriate to the circumstances; for example:

- Sun screen can protect workers from UV exposure while working outdoors
- > Gloves could be worn when handling smoke alarm/detection devices with radioactive isotopes (these can be safely handled with no precautions so long as the product is in good condition)
- > Guards or fences can be installed around high-frequency communication antennas to prevent exposure

Have a qualified person conduct testing to see if communication antennas on a building pose a health risk. Test to identify if radon exposure is a concern, and consult these sources for more information on radiofrequency radiation:

- ➤ Health Canada's Radiofrequency Exposure Guidelines
- ➤ Technical Guide for Interpretation and Compliance Assessment of Health Canada's Radiofrequency Exposure Guidelines

'Housing Provider' complies with Safety Code 6 and, as a result, has posted signage in applicable buildings indicating the level of hazard. Staff and contractors who access roof areas where antennas are present, or work near antennas, need to be aware of the hazard and take the appropriate actions on posted site signage.

Please refer to BC Housing's Safety Bulletin for more information, including a description of the hazard level signage.

If communication antennas are present, contact a 'Housing Provider' representative to find out the hazard level for the antennas.

Animal Fecal Matter and Carcasses

Animal fecal matter and/or carcasses may be present at some worksites. Follow safe work procedures for removing and disposing of these items.

Meaning: Any animal fecal matter or carcasses pose a health risk to humans. Workers need to be careful cleaning up fecal matter and carcasses to avoid being exposed to their bacteria. In particular, additional safety measures are required for bat and pigeon droppings due to a potential toxic mould that grows on them. If present, workers could inhale the toxic mould by improperly cleaning up the waste. Once inhaled, the mould can cause Histoplasmosis, a serious lung infection.

Impact: Whenever this waste is observed on a property, educate workers on the safety precautions required to clean, remove and dispose of it. Just accessing areas with built up waste could be hazardous if workers disturb the mould without PPE.

Additional Knowledge: Bats and pigeons typically roost in the roof, attic, or an abandoned part of a building. If practical, remove the animals or have the animals leave the building, then prevent them from returning.

If waste from bats and pigeons has developed, have a professional remove it using trained personnel with the required equipment to perform this work safely.

Pesticide Use

'Housing Provider' follows
the provincial Integrated
Pest Management Program
guidelines and WorkSafeBC
standards for applying
pesticides. All pesticide
application is performed by
contracted external services.
MSDSs of the products are
available from your 'Housing
Provider' representative.

Meaning: Pesticides are meant to control unwanted pests in the building, but contain poisons or toxins that also affect human health if improperly used. Commercial products are only available to pest control companies. But even household pesticides contain active ingredients that can impact worker and public health.

Impact: If using a pesticide, notify both workers and the public of the:

- > Pesticide being used
- > Date and time of application
- > Location of pesticide
- > What to do during and post application (i.e. vacate the suite)

Each pesticide will contain a different active ingredient, so workers will need to review warning labels on the product or MSDSs for safety precautions to follow. If a pest control company performs the work, have them inform workers of safety precautions before and after pesticide application.

Housing provider may need to prevent residents, contractors and members of the public from accessing locations where a pesticide was applied.

Also be aware of overlapping work areas, and warn contractors working in areas adjacent to the pesticide application. For example, warn contractors working on either side of a suite where a pesticide is being applied, as well as above and below the suite, in case the pesticide does not stay within that suite.

Additional Knowledge: According to the BC Ministry of Environment, applying pesticides to tenanted suites and/or common areas can only be performed by a licensed pest control company. However, this regulation does not prevent residents from using household products in their suites.

Violence in the Workplace

'Housing Provider' provides social housing for a broad demographic of residents, some with complex social and health care needs. A small proportion may exhibit aggressive tendencies towards violence or threats.

Contractors need to have procedures in place to ensure the security and safety of workers in these environments, and are required to operate in compliance with the WorkSafe BC OHSR governing violence in the workplace in all circumstances.

Contact building management staff for more information on potential site specific risks. **Meaning:** Housing providers have to recognize the potential for violent acts or threats directed against staff or contract personnel, and make every effort to identify sources and develop procedures to minimize the risks.

Impact: Perform a risk assessment to identify potential sources of violence. Notify contractors of any potential risks on the worksite that may put their employees at risk of violence. Share information on potential risks contractors should be aware prior to starting work.

Additional Knowledge: Physical violence is not the only form of abusive behaviour. Abuse can also include:

- > Talking down to others, being rude, offensive or insulting, making racist comments or other inappropriate comments
- > Sexual advances
- > Bullying
- > Stalking or inappropriately following someone

For more information, see these WorkSafeBC publications:

- > Take Care
- > Preventing Violence, Robbery, and Theft

Working Alone

Contractors and workers who work alone or in isolation tend to be more vulnerable than those with coworkers present, particularly during night shifts. If a lone worker is injured or an emergency occurs, how does the worker get help? What if the worker is unconscious? Even though such incidents aren't common, the consequences can be serious when they do occur.

When a contractor's worker is required to work alone or in isolation, and assistance is not readily available in case of emergency, injury or ill health, the contractor is responsible for creating written safe work procedures and training workers to use them. In addition, employers must implement a procedure for checking on the well-being of workers working alone or in isolation.

Specific requirements for working alone or in isolation are described in sections 4.20.1- 4.22 and 4.23 of the WorkSafeBC OHSR.

If any of the preceding conditions apply to your contract, 'Housing Provider' may ask to review a copy of your safe work procedures before work starts.

Meaning: Working alone is a common practice, particularly for projects of smaller scope. Not all instances of working alone meet the criteria for working in isolation. However, working alone or in isolation is a risk to the worker in case of emergency or when in need of medical attention, as no one is present to provide assistance.

Impact: This type of situation can happen at any time, but is a risk particularly for a lone worker during late night hours.

Contactors need a system in place to check in on a lone worker and ensure the worker is fine. Safe work procedures can decrease the potential for an accident onsite by giving the worker clear instructions on how to perform work, safety requirements and safety equipment.

If a worker is assigned to work alone or in isolation, complete the following:

- > Identify hazards, assess risks and tell workers about them
- > Eliminate or minimize the hazards
- > Develop and implement a written procedure for checking on the well-being of workers
- > Train workers in the procedure

Additional Knowledge: Housing providers should ensure staff working alone or in isolation have a procedure for checking in. Depending on the work and hazards, check-in could range from every 30 minutes to every four to eight hours.

Construction work is not typically associated with this category of hazard, but is not excluded. Be mindful of the potential for an incident and implement a check-in procedure when needed.

For more information, see the WorkSafeBC publication, Working Alone: A Handbook for Small Business.

This statement notifies contractors that safe work procedures have to be developed prior to performing the work, and that a housing provider may request documentation at any time.

Contractors should have a copy of the documentation available at the job site, upon request from the housing provider or WorkSafeBC.

The list above may not identify all of the possible worksite hazards you may encounter. Nevertheless, contractors are responsible for ensuring worker health and safety, as described in section 115 of the Workers Compensation Act.

'Housing Provider"s contract administrators may conduct audits to ensure compliance with all contract specifications.

'Housing Provider' maintains samples of current procedures for addressing hazards, available through your contract administrator. More information is also available in the Safety at Work section of WorkSafeBC's website.

Meaning: Not all hazards are listed in this guide, which is meant to cover hazards typically found in residential housing. If other hazards develop, seek professional assistance to ensure work is performed safely. Always be mindful of hazards, as a safe working environment will reduce injuries onsite, thus decreasing work stoppages and delays to completion.

Impact: Contractors are responsible for worker health and safety in the work area. Inform the contractor if you observe an unsafe condition or act, and, if necessary, stop the work until the unsafe condition is corrected.

Additional Knowledge: Housing providers may have developed a list of safe work procedures specifically for staff and their work activities. Contractors can review these work procedures but must develop their own safety program.

If you require additional information on safety or WorkSafeBC, the following associations may be able to provide assistance:

- > Contractors: BC Construction Safety Alliance
- > Employers: Employer's Advisers Office
- ▶ Housing providers, contractors and workers: WorkSafeBC

6.4 Hazmat & Safety Annual Acknowledgement form

Explanation

BC Housing has developed a new process to inform contractors, consultants and/ or suppliers of potential work hazards to enhance safety:

> Contractors performing work on BC Housing properties and buildings must sign and submit a Hazmat & Safety Annual Acknowledgment (HSAA) form

- ➤ The form enables contractors to access BC Housing's Hazmat Inventories website before going to a worksite
- > This online tool lists current inventories for each property and provides quick links to other websites

By signing this form, contractors acknowledge that:

- Inventories will be checked for potential hazards (asbestos, lead, etc.) before work activities commence
- Safe working conditions will be established and maintained in accordance with WorkSafeBC's Occupational Health and Safety Regulation

Meaning: BC Housing is also responsible for informing contractors of worksite hazards on our properties. To meet our WorkSafeBC compliance obligation we have developed the Hazmat and Safety Annual Acknowledgement form to communicate hazardous materials information to contractors.

Impact: When planning to have work done at a building site, a housing provider needs to either:

- ➤ Include a document in the contract instructing the contractor of all hazards, or
- > Have a safety orientation with the contractor's workers informing them of the hazards before starting work. Each worker should sign a form acknowledging the training

Informing contractors can take place before the work starts or when they first come onto the site. Complete this process for each separate project, even if the contractor is familiar with the property.

Additional Knowledge: Safety orientation doesn't need to be a lengthy process. Develop a single-page form so your staff can go through a safety orientation checklist with the contractor's workers.