



## **Section 1: Company Health & Safety Policy**

Our Company and its senior management are committed to the health and safety of our workers and everyone at the workplace. Our Occupational Health and Safety Program (OH&S Program) is put in place and implemented with the management's objective that it will provide, maintain and assist all our workers to work in a safe and healthy environment. We will take all reasonable steps to comply and abide by all the rules and regulations of all the Regulatory Agencies applicable to our industry to prevent injury and or illness in our workplace. We expect everyone in our company to cooperate and abide by this policy. We cannot meet this goal without full co-operation from all our personnel.

Our Company recognizes the right of workers to work in a safe and healthy work environment; further that our workers have the right to refuse unsafe work. With our OH&S Program in place and everyone's full cooperation, we will do our best and always strive for our goal of zero injury in our workplace. However, if we need to deal with any accident, our company has an Injury Management System in place for employees including a return to Work Program to assist employees with any work related accident. All current and new hires will be orientated with our OH&S program and our safety culture.

Our management together with everyone's cooperation is responsible to provide a safe workplace for all our workers and for the implementation of our OH&S Program. Management shall adhere to, promote and support our company's OH&S Program, inclusive of each and every element contained therein, and ensure all employees are informed of the company's expectations regarding health and safety. Management personnel shall ensure the regular inspections are conducted to review the work activities and conditions and that prompt corrective action is taken to eliminate hazards.

Company Management and Supervisors will work together to set up the project, maintaining appropriate staffing levels and ensuring that all equipment and utilities are sufficient for the workers to perform their duties safely. They shall also ensure that everyone at the workplace complies with all the rules and regulations of applicable regulatory bodies and abide by our OH&S program.

Our Supervisors are responsible and accountable for providing safety instruction to all new and re-assigned employees before assigning their duties and enforcing safe work procedures and regulations. Supervisors shall ensure regular inspections of practices and conditions in the area of their control and prompt corrective action to eliminate hazards. Supervisors shall set a good example by following all safety regulations and by prompting all safety activities addressed in the safety program.

All Workers shall observe all safety rules, all company OH&S elements and regulations and conduct themselves in a manner that does not endanger the well-being of themselves or others, or cause property damage. Workers must rectify unsafe conditions and or report any unsafe conditions immediately to their Supervisor.

With everyone's assistance and cooperation, we can all work together towards a safe and healthy work environment, safe from any illness and accidents. Our OH&S program and Safety Policy will be reviewed and signed by the Management annually. Any additions, revisions and or amendments will be reviewed and inputted immediately as is necessary for our workers safety. We extend our thanks to everyone for their full cooperation as we strive for a safe workplace.

*Christina Marwood*

August 18, 2023

*Christina Marwood – President*



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# INTRODUCTION

***Safety is about accountability and EVERYONE is responsible!***

- Key Points**
- ☑ Our philosophy regarding safety
  - ☑ Worker orientations: site and company
  - ☑ Disciplinary action policy & types of infractions
  - ☑ Young & New Workers
  - ☑ Injury Prevention

## 1 PHILOSOPHY

We are committed to providing and maintaining a safe and healthy work environment through the use of a comprehensive Occupational Health & Safety Program. All employees must comply with this program.

The 4 key elements to our OH&S program are:

1. Management leadership in development and establishment of safety policies
2. Safety Audits (inspections/tool box meetings/investigations /statistics) to develop general safety rules and standard safe work procedures.
3. Training and New Worker Orientation.
4. Enforcement, monitoring, and feedback for workers on rules and procedures.

## 2 OBJECTIVE

**Our Goal is no accidents. No lesser goal can be the aim.**

Our objective is to take all reasonable steps to provide a safe workplace. The objectives of our company and our contractors shall be:

1. Reduce worker injury to lowest levels.
2. Maintain a safe working job site.
3. Optimize project efficiency through proper planning, procedures and communications.

Our Occupational Health & Safety Program will be kept on site and made available to all those who are required to follow it. The contents of this program must be adhered to at all times. As well, each sub-contractor must provide us with a current insurance clearance letter, have their own Occupational Health & Safety Program in place and ensure that their workers are familiar with the contents and trained adequately.

## 3 WORKER ORIENTATION

Prior to any worker beginning work they must first complete a site safety orientation. Each supervisor and sub-contractor is expected to ensure their employees attend the orientation.

We expect all employees to take this site orientation seriously and will make periodic checks to ensure workers are adhering to the Occupational Health & Safety Program.

New workers to our company or sub-contractors are required to complete our company safety orientation. It discusses our safety program and the expectations we have with regards to compliance. It is the responsibility of everyone to ensure that safe working conditions are maintained on the job sites at all times and that the appropriate steps are taken to correct any hazards that may be present.





## 4 YOUNG & NEW WORKERS

### Part 3.22 to 3.25 of the OH&S Regulation

An employer must ensure that every young or new worker is given health and safety orientation and training specific to that young or new worker's workplace before the new or young worker begins work. The following topics must be included in the orientation or training:

1. The name and contact information for the young or new worker's supervisor;
2. The employer's and young or new worker's rights and responsibilities under the Workers Compensation Act and this Regulation including the reporting of unsafe conditions and the right to refuse to perform unsafe work;
3. Workplace health and safety rules;
4. Hazards to which the young or new worker may be exposed, including risks from robbery, assault or confrontation;
5. Working alone or in isolation;
6. Violence in the workplace;
7. Personal protective equipment;
8. Location of first aid facilities, means of summoning, and reporting illnesses and injuries;
9. Emergency procedures;
10. Instruction and demonstration of the young or new worker's work task or work process;
11. The company's safety program, where required under section 3.1 of the Regulation;
12. WHMIS information requirements set out in Part 5 of the Regulation, as applicable to the young or new worker's workplace;
13. Contact information for the occupational health and safety committee or the worker health and safety representative, as applicable to the workplace.

## 5 TRAINING

### 5.1 SUPERVISORS

All supervisors must be trained in the following:

1. The need to maintain a safe, non-violent and healthy working environment.
2. The dangers associated with a job, the potential effect on employees, and the rules, procedures and work practices for controlling these dangers.
3. How to relate this information, by example and instruction, to employees, to ensure that they understand and follow safe work procedures.
4. How to investigate accidents and to take corrective action to prevent recurrence.
5. Effective supervision and instruction techniques; i.e. motivation and communication.
6. How to conduct inspections of their area.
7. How to give safety crew talks.
8. How to follow-up on error/incident to ensure problem has been corrected so that the employee conducts his work in a safe manner.
9. Documentation requirements; First Aid, Inspection Reports, etc...
10. First Aid Qualifications



## **5.2 WORKERS**

Training requirements are determined by the supervisor(s) and include, but are not limited to:

1. Personal Protective Equipment
2. Fall Protection
3. Electrical and Power line
4. Respiratory Protection
5. Hearing Protection
6. WHMIS

## **5.3 DOCUMENTATION**

Worker training documentation must be kept on site and made available upon request.

## **6 SUPERVISION AND COMMUNICATION**

Safety issues will be communicated to all workers on site by the following means:

1. Management meetings
2. Crew talks
3. Pre-job planning sessions
4. OH&S inspection reports

## **7 COMPANY SUPPLIED VEHICLES**

Company supplied vehicles must be operated in accordance with the Motor Vehicle Act and shall not be used while under the influence of alcohol or drugs. In addition, employees authorized to use a company supplied vehicle must sign a waiver assuming all responsibilities for their actions.

All company vehicles used on site, such as forklifts, can only be operated by authorized and trained workers. Disciplinary action will be enforced for violations.

## **8 DISCIPLINARY ACTION POLICY**

All employees must be trained in proper safety procedures and are expected to follow and adhere to all aspects of our Occupational Health & Safety Program. Violations may result in disciplinary action taken. See section 8 of the General Safety Policy for detailed information on Disciplinary Action.

## **9 PROGRAM REVIEW**

Our OH&S Program will be reviewed annually with updates to the OH&S Program as required.



# RESPONSIBILITIES

***Take responsibility for your own personal safety and that of your fellow workers. Do not leave a hazard for someone else to deal with: They may not survive the experience.***

**Key Points** ☒ You have the responsibility to refuse unsafe work

☒ Everyone has responsibilities

☒ Set a good example

**Part 3 of the OH&S Regulation**

## 1 UNSAFE WORK

### **Part 3.12 of the OH&S Regulation**

All workers have the right and obligation to refuse unsafe work. You cannot be disciplined or let go for refusing work you consider unsafe. When we are aware of the unsafe condition we will remedy it without delay or provide a safe means of doing the work.

By refusing, however, you must be able to show why you consider the work to be unsafe and provide an alternative method to do the work safely.

## 2 COMPANY RESPONSIBILITIES

### **Part 3 Division 3 (115) of the Workers Compensation Act**

We will implement and spearhead our company safety policy while encouraging individual initiative. Our safety responsibilities include:

1. Company safety policies and procedures and OHS Regulations are promoted and implemented, and adhered to at all times, on every jobsite.
2. Managing the Occupational Health and Safety program in the same manner as any other of our important business activities.
3. Supervisory personnel are trained in all manners of safe work procedures and provide appropriate instruction and direction to their workers on how to perform their tasks.
4. Workers performing high-risk tasks are given thorough and appropriate guidance on an ongoing basis.
5. Potential hazards are identified and brought to the attention of workers who may be exposed to them and, where practicable, the hazards are eliminated.
6. Accident Investigation / Incident Reports are investigated and reviewed to ensure they are serving their intended purpose.
7. Records and statistics are maintained and made available.
8. Periodic management meetings are held for the purpose of reviewing health and safety practices and accident trends and determining necessary courses of corrective action.
9. Sub-contractors are to ensure that all workers are trained and supervised and comply with all the regulatory agencies applicable.
10. Thorough planning takes place prior to the commencement of any job, and continues on an ongoing basis.
11. Work sites, equipment, work methods and practices are regularly inspected with the intention of identifying and correcting hazards.
12. Personal protective equipment is provided as required by the Regulation.



13. First aid services, equipment, and provisions for medical care are available.
14. Emergency procedures are developed and maintained and workers are trained in these procedures.
15. Disciplinary action is taken when required.
16. They set a good example.

### **3 SUPERVISORS**

#### **Part 3 Division 3 (117) of the Workers Compensation Act**

All supervisors are responsible to ensure:

1. They are familiar with, promote and implement company safety policies and procedures and applicable OH&S and local government regulations.
2. Regular site inspections are conducted and recorded in the Site Inspection Log Book. Immediate action is taken to correct any sub-standard safety condition.
3. They review safety records and take actions necessary for improving job safety.
4. Accident/incident investigations are performed and investigated.
5. Health and safety meetings are attended by representatives of the company.
6. Safety items are discussed in meetings with owners and sub-contractors and that workers adhere to all site safety regulations.
7. In liaison with the Construction Safety Officer, an appropriate emergency plan is developed and communicated to workers on the job site.
8. Workers are physically and mentally fit to perform assigned duties.
9. Workers are encouraged to participate in the Occupational Health & Safety Program
10. Informing workers of any potential hazards associated with their tasks.
11. Workers use and are trained in the use of appropriate personal protective equipment.
12. Workers under their direction are trained in the safe work procedures associated with their tasks.
13. General safety instruction is provided to new workers prior to assignment of duties and followed up regularly
14. Workers are not permitted to work when their actions indicate that work would jeopardize themselves or others
15. An effective program of good housekeeping is developed and administered
16. Adequate first aid facilities are maintained on the job site.
17. All controlled products are identified and labeled and MSDS are used.
18. Tools and equipment are inspected, properly maintained and in safe working order.
19. Disciplinary action is taken when required.
20. They set a good example.

### **4 WORKERS**

#### **Part 3 Division 3 (116) of the Workers Compensation Act**

All workers must comply with our Safety Program, the OH &S Regulation and all applicable local government bylaws. Working safely is a condition of employment with us.

Workers' responsibilities include, but are not limited to:

1. Complying with company and legislated safety rules and regulations.
2. Using or wearing any required personal protective equipment.
3. Removing jewelry and other loose fitting objects that could become caught in machinery or equipment they operate.
4. Reporting any unsafe conditions to an immediate supervisor.
5. Taking corrective action, when practicable, to eliminate potential hazards.



6. Ensuring safeguards are in place and functioning before operating any equipment.
7. Maintaining good housekeeping in their work area.
8. Clarifying work procedures with your supervisor if unsure.
9. Not endangering yourself or other workers through unsafe work practices or irresponsible actions. (IE: fighting, horseplay, practical jokes)
10. Reporting any work related injuries or health problems to your supervisor immediately.
11. Using controlled materials in accordance with MSDS recommendations.
12. Understanding that it is your right and responsibility to refuse unsafe work.
13. Setting a good example.

## 5 SUB-CONTRACTOR

Sub-contractors on the job site are responsible for the health and safety of themselves and their employees. While on the site each sub-contractor must:

1. Have their own company Occupational Health & Safety Program.
2. Be knowledgeable of, and comply with, all Federal, Provincial, local and corporate rules, regulations, laws and codes.
3. Ensure all employees have completed a site safety orientation prior to working on site.
4. Enforce all established safety regulations and work methods and take disciplinary action necessary to ensure compliance with the rules.
5. Provide a copy of their current Insurance Clearance Letter.
6. Plan and execute all work in a manner complying with local government regulations.
7. Provide, and ensure the use of, adequate personal protective equipment.
8. Conduct regular inspections to identify unsafe practices and conditions and take corrective action to eliminate potential causes of accidents and/or incidents.
9. Continually monitor for hazardous conditions and ensure that dangers are eliminated where practicable, and controlled when it is not practicable.
10. Ensure workers do not work when their actions jeopardize themselves or others
11. Keep appropriate records and statistics and make them available upon request.
12. Ensure tools and equipment are properly maintained and in safe working order.
13. Ensure emergency procedures are developed, maintained and workers are trained.
14. Review all safety meeting reports to ensure meaningful direction is provided to workers.
15. Maintain good housekeeping on the site.
16. Ensure all accidents/ incidents are investigated; documented.
17. Monitor newly employees until confident of worker's ability to perform duties safely.
18. Ensure that adequate first aid facilities are maintained on the job site.
19. Set a good example.

**20. The use of drugs or consumption of alcohol on site or during working hours is grounds for immediate dismissal.**



## 6 SUPPLIERS

### Part 3 Division 3 (120) of the Workers Compensation Act

The Supplier will ensure that all their delivery people are not exposed to unsafe conditions or actions. All Suppliers must be aware that they are to comply with all Occupational Health & Safety Regulation and if required, bring the appropriate fall protection equipment to the sites for the off-loading of their materials. Other responsibilities are:

1. Know and comply with safety, TDG, and WHMIS legislation and regulation.
2. Ensure all hazardous products delivered to the site are properly labeled and accompanied by MSDS in accordance with WHMIS regulation.
3. Ensure that WorkSafeBC insurance premiums for workers are current.
4. Wear proper PPE at all times while on site.
5. Adhere to instructions from site Superintendent and/or Site Safety Officer.



# GENERAL SAFETY RULES

***Safety is a process. Once the process is understood it must be practiced until it is a habit. Making safety a habit should be the goal of everyone.***

- Key Points**   ☒ **General safety rules to be followed by all workers**  
                  ☒ **Safety self awareness**  
                  ☒ **The requirements for Personal Protective Equipment**

## 1 SITE SAFETY RULES

Rules for safe work are established to provide a consistent framework within which all employees can work safely.

All workers are responsible to know and observe the following safety rules. These rules will be posted where all workers can see them. Compliance will be strictly enforced and violations are cause for disciplinary action.

## 2 SAFETY SELF AWARENESS

Workers must be trained in, and provided with, written procedures and instructions which will be enforced in the same manner as rules and regulations. Each supervisor will determine which procedures and supplementary instructions are needed.

### 2.1.1 INJURY PREVENTION

Workers are encouraged to understand the basic principles of injury prevention. The following points will assist supervisors and workers in preventing injuries on site;

1. Warm-up before you begin working especially in the following situations;
  - After an extended absence
  - After a weekend
  - When the temperature is cold or conditions are slippery
2. Plan your path before you start moving.
3. Always assess before you lift. Know the weight of the object, the best way to lift, and when to ask for assistance. If loads are long or oddly shaped always ask for help.
4. Keep yourself in good shape. Exercise often, eat well and get plenty of rest. Failure to do so will lead to a certain degree of fatigue over time which will lead to injury.

### 2.1.2 CONSUMPTION OF DRUGS AND ALCOHOL ON SITE

1. Any worker deemed unfit to perform his assigned duties safely, by reason of influence of medication, may be subject to reassignment to a less hazardous job.
2. Any worker under the influence of medication that may affect his ability to perform his duties safely may request reassignment to a less hazardous job.
3. Workers may be subject to drug testing at any time; refusal is grounds for dismissal.





4.

### 3 SANITARY CONDITIONS

#### Part 4.85 of the OH&S Regulation

Sanitary conditions are very important to us. All personnel on site should adhere to the WorkSafeBC Regulations where applicable.

Cleanliness is a priority. It is the responsibility of the general contractor to ensure that an adequate number of washroom facilities are available on site. Anyone caught urinating on site may face immediate dismissal at the discretion of his or her supervisor. General Contractor can overrule any decision made by any sub-trades.

#### Part 4.84 & 4.86 of the OH&S Regulation

We will ensure that workers have adequate facilities to eat and rest in during breaks. These facilities will be secure and dry so personal equipment and clothing may be stored there safely.

### 4 IMPROPER CONDUCT

#### Part 4.24 of the OH&S Regulation

We will ensure all workers conduct themselves in a mature and professional manner while on the jobsite. The following activities will not be tolerated and may result in disciplinary action:

1. Engaging in horseplay, fighting, unnecessary running or jumping or similar conduct.
2. Knowingly engaging in hazardous behavior.
3. Impairment, physical or mental, due to use of alcohol, drugs or other substance.

Workers they have the right and responsibility to refuse work in any unsafe conditions. Anyone engaging in unsafe behavior is subject to disciplinary actions at the supervisor's discretion.

### 5 HARASSMENT POLICY

We are committed to providing a work environment that is supportive of employee dignity and self-esteem. Harassment in the workplace violates this commitment, is oppressive and will not be tolerated. This policy is extended to any person that an employee may deal with.

#### 5.1 DEFINITION

Prohibited grounds of discrimination identified by the Human Rights Act are race, color, ancestry, place of origin, political belief, religion, marital status, physical or mental disability, sex, age, criminal or summary conviction unrelated to employment and sexual orientation.

Harassment means any conduct, comment, gesture or contact, based on prohibited grounds by one of our employees or an employee of one of our sub-contractors that causes offence to, or the intimidation or humiliation of, another or that might reasonably be perceived by another as placing a condition on his or her employment.

**Everyone is accountable and responsible for their actions!**

### 6 VIOLENCE IN THE WORKPLACE

#### Part 4.29 of the OH&S Regulation

We are committed to providing a safe work environment. Workplace violence violates this commitment and will not be tolerated. This extends to any person employees deal with.

#### 6.1 DEFINITION

Violence in the workplace is not only physical threat but implied threats of violence, causing the worker to suffer an acute reaction (IE: mental stress). Improper conduct such as intimidation and bullying in the workplace will be considered linked to the potential for violence.





## 6.2 EMPLOYERS RESPONSIBILITY

Treatment provision to prevent/reduce the potential for a worker to suffer an acute reaction (IE: mental stress) to a traumatic event is required, in confidence by the employer. We will advise workers subject to violent incidents of the availability of immediate debriefing. Early intervention is available through the WorkSafeBC Critical Incident Response Program.

## 6.3 WORKERS RESPONSIBILITY

Workers are to report any threats of violence immediately. These reports are in confidence.

## 7 DISCIPLINARY ACTION POLICY

All workers must be trained in proper safety procedures and must adhere to all aspects of the Safety Program. The close observance of all Federal, Provincial, local and client rules and regulations will be monitored at all times.

Appropriate action will be taken if there are infractions.

### 7.1 MAJOR INFRACTION

Definition: Any infraction of government, corporate, or client rules or legislation with the potential to cause serious damage, injury, or death. Such as:

1. Hi-voltage Power line Contacts
2. Failure to lockout Equipment
3. Hazards immediately dangerous to life and health
4. Inadequate protection of workers from health hazards that have some long-term chronic effect (concrete dust)
5. Inadequate use of Mobile Equipment
6. Inadequate First Aid facilities or coverage
7. Lack of supervision/coordination between sub-trades; allowing unsafe working habits
8. Inadequate Occupational Safety & Health Program
9. Failure to use Fall Protection as required
10. Working alone in confined space
11. Use of drugs and alcohol while working
12. Harassment
13. Inappropriate behavior

1st OFFENCE: Verbal warning with written card and sent home without pay.

2nd OFFENCE: Termination.

**Use of drugs or alcohol on site or during working hours is grounds for immediate dismissal.**

### 7.2 MINOR INFRACTION

Definition: Any infraction of government, corporate, or client rules that does not have the potential to cause immediate serious damage or injury. Please see Section 8 "Worker Safety Enforcement" for further information in regards to Minor Infraction.



## 8 WORKER SAFETY ENFORCEMENT

All disciplinary actions will be recorded on **Form-0091** Notice of Violation, signed by the worker and Supervisor, with a copy sent to the head office for review and retention in the worker file.

### 8.1 VERBAL WARNING

Safety infractions discussed to rectify the hazard and modify work practice or unsafe condition.

**The safety orientation is to be your verbal warning with regards to health and safety!**

### 8.2 STRIKE ONE (1)

1st OFFENCE: Verbal warning with written card:

- Written warning requesting compliance; to be signed and acknowledged by worker.
- Copy of warning forwarded to immediate Supervisor and superintendent.
- Copy forwarded to employer to review and file.

### 8.3 STRIKE TWO (2)

2nd OFFENCE: Verbal warning with written card, and sent home without pay;

- Written warning requesting compliance; to be signed and acknowledged by worker.
- Worker receives 3 day suspension; copy forwarded Supervisor and superintendent
- Copy of the suspension and accompanying memo to be forwarded to our Head Office.

**Any worker removed from a jobsite must provide written assurance from him/herself and the immediate supervisor that this action will not occur again.**

### 8.4 STRIKE THREE (3)

3rd OFFENCE: Verbal warning with written card and terminated

- Written Notice of Non-compliance given to the offender to be signed and acknowledged.
- Worker asked to leave site; employment terminated.
- Copy forwarded to Head Office.

**An individual having three (3) strikes may request reinstatement if permitted by the site Supervisor or General Contractor. This request must be in writing and provide reasons for reinstatement and a plan of action ensuring future compliance.**

**IF YOU DON'T WANT TO WORK SAFELY, WE DON'T WANT YOU ON OUR TEAM!**

## 9 MACHINE AND TOOL GUARDS

### Part 12.2(b),(c) of the OH&S Regulation

Employees, who are responsible for placing equipment into service, are also responsible to ensure equipment guards are in place. If the original guard provided cannot be put in place, employees should use a temporary method, offering equal or better protection than required by the manufacturer and regulations. Some examples of tools requiring guards are:

1. Table saws.
2. Circular saws.
3. Grinders.



## 10 COMPRESSED AIR

### Part 12.82(3) of the OH&S Regulation

Compressed air is a potentially hazardous energy source which can cause serious injury to workers if used incorrectly. The following points will be adhered to by all workers required to use compressed air as part of their scope of work;

1. Compressed air must never be used to clean hair, face, arms, hands or clothing.
2. Blowing dust from clothing on the body can cause skin damage, rupture ear drums, injure eyes, and if used on skin where a small cut is present, air may enter the bloodstream and cause irreversible damage to your health and ultimately death.
3. When using compressed air to blow off decks or clean parts of machinery etc., protective screens, goggles, face shield, or safety glasses must be worn as well as hearing protection.
4. Restraining devices shall be used on connections of hoses and tools, which are under pressure, when inadvertent disconnection could cause a reaction harmful to workers.

**HORSEPLAY WITH AIR HOSES IS EXTREMELY DANGEROUS AND WILL NOT BE TOLERATED**



# PERSONAL PROTECTIVE EQUIPMENT

- Key Points**
- ☑ General safety rules to be followed by all workers
  - ☑ Discipline policy for non-compliance
  - ☑ Lone worker requirements
  - ☑ Non-compliance

## 1 POLICY

All Contractors, Contractors and their work force must understand and comply with all Site Safety Rules. Contractors who ignore requests by the Superintendent, Project Manager, or Construction Safety Officer to follow the rules shall be reported to WorkSafeBC and utilize contractual enforcement to take whatever means necessary to ensure compliance and to maintain the requisite health and safety standards on the site. The Superintendent and Project Manager may, at their discretion, refuse a Contractor site access due to a lack of safe conduct.

Visitors are not to enter the construction site unless equipped with adequate foot and head protection as established by the OHS Regulation. All visitors are to report to the site office.

## 2 SUPERVISOR'S RESPONSIBILITIES

The supervisor must ensure that appropriate personal protective equipment is:

- (a) available to workers,
- (b) properly worn when required, and
- (c) properly cleaned, inspected, maintained and stored.

## 3 WORKER'S RESPONSIBILITIES

A worker who is required to use personal protective equipment must:

- (a) use the equipment in accordance with training and instruction,
- (b) inspect the equipment before use,
- (c) refrain from wearing protective equipment outside of the work area where it is required if to do so would constitute a hazard, and
- (d) report any equipment malfunction to the supervisor or employer.

A worker who is assigned responsibility for cleaning, maintaining or storing personal protective equipment must do so in accordance with training and instruction provided.

## 4 PERSONAL CLOTHING AND ACCESSORIES

The personal clothing of a worker must be of a type and in a condition which will not expose the worker to any unnecessary or avoidable hazards.

If there is a danger of contact with moving parts of machinery or with electrically energized equipment, or if the work process presents similar hazards:

- (a) the clothing of the worker must fit closely about the body,
- (b) dangling neckwear, bracelets, wristwatches, rings or similar articles must not be worn, except for medical alert bracelets which may be worn with transparent bands that hold the bracelets snugly to the skin, and
- (c) cranial and facial hair must be confined, or worn at a length which will prevent it from being snagged or caught in the work process.

## 5 GUIDELINES FOR SELECTION OF PPE:

### a. Match the PPE to the hazard

Each hazard associated with a work process may require PPE be worn. Two or more hazards may require multiple protections.

**b. Obtain advice**

Discuss basic needs with trained sales representatives and ask for their recommendations. Ask for alternatives and check into product claims and test data. Test PPE products before ordering.

**c. Involve worker in evaluations**

Introduce approved models for trials and require workers to evaluate the PPE. Information regarding fit, comfort and worker acceptability will be gained. Workers should select from among two or three models allowing for personal preference.

**d. Consider physical comfort of PPE (ergonomics)**

If PPE is unnecessarily heavy, poorly fitted, or uncomfortable, compliance will likely be poor. When several forms of PPE are worn together, interactions must be considered.

**e. Evaluate cost considerations**

Evaluating costs of PPE over time may indicate significant cost savings through the initiation of engineering controls or different PPE.

**f. Ensure compliance with the standards**

In British Columbia, the OH&S Regulations and the Canadian Standards Association (CSA) are usually used. Other standards may be quoted for specific materials.

**g. Check the fit**

The PPE when selected should be fitted to each worker. Qualified personnel should conduct the fitting.

**h. Perform regular maintenance and inspections**

Maintenance includes inspection, care, cleaning, repair and proper storage of equipment. Careful inspections will ensure damaged equipment will not be used.

**i. Conduct training**

Training should cover how to fit and wear PPE, how to adjust it for maximum protection and how to care for it. Training can be done individually or in groups. Explain how the PPE protects the worker from the hazard.

**j. Obtain support from all departments**

Involvement from management, the health and safety committee, individual workers and the suppliers of the PPE assist in overcoming objections to wearing the PPE.

**k. Audit the PPE program**

The PPE program may be audited monthly during the inspection process and by the managers when they complete their audits. Audits should include changes to safety performance for the department. If an evaluation of workplace conditions is required to determine appropriate personal protective equipment, the evaluation, where practicable, must be done in consultation with the joint committee or the worker health and safety representative, as applicable, and with the worker who will use the equipment.

Prior to using any type of Personal Protective Equipment, ensure it is in good shape, free of dirt and debris and that you are familiar with its correct use. Workers must ensure that all protective equipment fits properly and that it is free from damage. This will require that workers inspect their PPE prior to each use. Personal protective equipment must always be stored with care to prevent damage. Refer to manufacturer's instructions for proper care and storage.

The following points outline specific requirements for PPE;

**5.1 HEAD PROTECTION**

Safety headgear must be worn by a worker in any work area where there is a danger of head injury from falling, flying or thrown objects, or other harmful contacts and must meet the CSA Standards for *Industrial Protective Headwear*.

If a worker may be exposed to an electrical hazard the safety headgear must have an appropriate non-conductive rating.

Never paint your hardhat and never wear a painted hardhat



The shell and suspension of hardhats must be inspected regularly for cracks, deep scratches or other defects.

Damaged headgear or headgear with missing, mismatched, or modified components must be removed from service.

The replacement of headgear every 5 years and headgear suspension every year is highly recommended.

## 5.2 FOOT PROTECTION

At all times on the job, construction workers must wear CSA certified Grade 1 footwear. This footwear bears a green triangular patch stamped with the CSA trademark on the outside and rectangular green label on the inside.

Safety footwear should always be worn with the laces tied up at the top of the footwear.

Do not wear safety footwear that is cracked or has cuts through the leather. Always make sure the footwear has good slip resistant sole material that is not excessively worn.

## 5.3 SKIN PROTECTION

Workers are encouraged to always dress suitable for work. Items such as denim coveralls and cotton shirts provide protection against minor scrapes and bruises as well as harmful ultraviolet radiation.

The following is the minimum recommended requirements for personal protection:

- For personal safety on the job, Do Not wear loose clothing or cuffs, greasy or oily clothing, gloves or boots – torn or ragged clothing – finger rings.
- Neck chains are hazardous and must be worn under clothing so that they don't hang out. Long hair must be tied back or otherwise confined.
- Clothing made of synthetic fibers can be readily ignited and melted by electric flash. Cotton or wool fabrics are more flame retardant and are therefore recommended.

Workers must at all times wear a shirt with a four inch sleeve in order to protect themselves from sunburn and abrasion.

Long pants and long sleeved shirts are recommended for use to reduce minor cuts, scrapes and abrasions and should be worn when working with sharp or abrasive materials.

Gloves should NOT BE WORN when operating powered tools such as drills, saws, table saws, etc.

Workers should wear protective equipment when handling materials likely to puncture, abrade or irritate hands and arms, unless the use of this equipment introduces equal or greater hazards.

## 5.4 EYE PROTECTION

Where the possibility of injury to the eyes exists, workers shall wear appropriate eye protection. As a basic requirement, workers are advised to always wear safety glasses with side shields.

Workers must wear safety goggles over non-safety prescription glasses where an eye hazard exists.

Workers engaged in the operation of sanders and grinders must wear safety glasses with side shields as well as face shields.

Workers using chemical products, which may splash into the eyes, shall wear safety goggles or chemical splash goggles dependent upon the requirements of the Material Safety Data Sheet for the product. The use of strong chemical products such as acids, base or alkaline products will require the use of a face shield as well as chemical goggles.

Workers wearing contact lenses must inform their supervisor so that the lenses can be removed in the event of an accident.





Workers must not wear contact lenses where gases, vapours, flying objects, dust or other materials are present that may harm the eyes or be absorbed by the lenses.

## 5.5 HEARING PROTECTION

Refer the Hearing Loss Prevention program section of this OH&S Program for further details. The following points are the minimum standard to be achieved by trained workers;

All workers engaged in Construction work are required to have an annual hearing test and are required to carry a current hearing test card.

Workers engaged in activities, which generate noise, or who are exposed to noise from tools and equipment shall wear CSA approved hearing protection.

Prolonged exposure to noise levels in excess of 90db is harmful. Examples of noise levels associated with the Construction Industry include;

- |                    |               |
|--------------------|---------------|
| ▪ Crane operator   | 82 – 99 dBA   |
| ▪ Drilling         | 99 – 103 dBA  |
| ▪ Welding          | 84 – 97 dBA   |
| ▪ Air arc cutting  | 110 - 120 dBA |
| ▪ Pneumatic hammer | 100 – 105 dBA |

Always keep your hearing protection clean to avoid irritation to the ear and ear canal.

## 5.6 RESPIRATORY PROTECTION

The use of respiratory equipment is only permitted by trained personnel. Refer to the Respiratory Protection Section of this OH&S Program for more information on the safe use of respirators. The following points are the minimum standard to be achieved by trained workers;

Construction workers are sometimes exposed to respiratory hazards generated by equipment, materials, or procedures. When this occurs, workers shall wear appropriate respiratory protection based on the hazard, the product, or the requirements of a Material Safety Data Sheet (MSDS).

Respiratory protective devices range from disposable dust and vapour masks, through twin cartridge half mask respirators, to air supplied respirators and Self Contained Breathing Apparatus (SCBA).

Workers required to wear respirators must be clean shaven in the areas where the respirator contacts the skin.

Only workers who have been adequately instructed shall wear respirators. Half mask, full mask and air supplied respirators require that the wearer be fit tested to the respirator to be worn.

No worker shall use these types of respirator until they have been successfully fit tested. Workers shall only use the respirator they were fit tested to unless a new fit test is performed, shall not use a substitute respirator.

Respirators, other than disposable types shall be stored in a clean, dry area, preferably in a plastic bag. Damaged respirators shall not be used until they are repaired or replaced.



# SAFETY MEETINGS

***Safety Meetings are a formal way to communicate and promote safe practices in our workplace.***

- Key Points**
- ☒ Safety meetings are mandatory
  - ☒ Keep focused and on topic
  - ☒ Tool box meetings help keep workers focused

## 1 TOOLBOX SAFETY MEETING

Regular Toolbox Safety talks must be conducted not less than weekly to provide workers training and education

Meeting minutes must be recorded and kept on site.

Preparing for Toolbox Safety Meetings involves:

1. Deciding on a topic:
  - Personal experiences, observations, and beliefs,
  - Repeated problems, accomplishments, needs for improvement,
  - Think of your workers, their wants and needs, opinions, abilities and attitudes,
  - Keep notes of day-to-day occurrences that could form interesting safety talks,
  - Read safety-related material, and clip articles for later discussion,
  - Confine the topic to one main idea; don't try to talk about everything!
2. Summarizing your talk in point form for reference:
  - Know what you are going to say,
  - Write down the key points, facts and examples,
  - Practice your talk - run through material before presenting it to workers.
3. When you deliver your talk;
  1. Relate to the crew's attitudes, abilities and interests,
  2. Use brief demonstrations, simple graphs, displays, posters, news articles, etc.,
  3. Make your meeting interactive and informal,
  4. Keep your message clear and understandable,
  5. Ensure you take an educational approach versus a disciplinary one.
  6. Answer spoken and unspoken questions - your crew will always have the following questions in mind: What does it mean to me? What do you want me to do? What's in it for me? What will happen if I opt out?

Copies of completed crew talks must be given to the Safety Representative on site by the following work day after the meeting is held.





# ACCIDENT & INCIDENT INVESTIGATION

***Accident: an undesirable or unfortunate happening that occurs unintentionally and usually results in harm, injury, damage, or loss; casualty; mishap.***

- Key Points**
- ☒ Accidents can be prevented by knowing and planning
  - ☒ We all share in the responsibility of preventing accidents
  - ☒ We investigate to determine causes, not to find fault

## 1 ACCIDENT PREVENTION POLICY

The first step to ensuring a zero injury workplace is accident prevention. The following processes will be followed to help ensure we have identified risks and taken steps to minimize exposure to workers;

1. Each job sites develop an accident prevention program, specific to the needs of the particular operation and to the type of hazard involved.
2. A safety orientation program describing the employer's safety program and including:
  - How, where, and when to report injuries, including instruction as to the location of first aid facilities.
  - How to report unsafe conditions and practices.
  - Proper use and care of necessary personal protective equipment.
  - Emergency procedures including egress routes and muster points.
  - Identification of the hazardous gases, chemicals, or materials involved along with the instructions on the safe use and emergency procedure following accidental exposure.
  - On the job reviews of ongoing safety practices specific to trade assignments.
3. Supervisors must conduct safety meetings (i.e. crew talks) as follows:
  - At the start of each job, and at least weekly thereafter
  - Be specific to the particular operation.
4. Crew safety meetings must address the following:
  - Concerns of any safety inspections conducted since the last safety meeting.
  - A review of any citation to assist in correction of hazards
  - An assessment of any accident investigations conducted since the last meeting to determine if the cause of the unsafe acts or unsafe conditions involved were properly identified and corrected.
  - Attendance to be recorded
  - Discussions to be documented
5. Safety inspections to be conducted by Supervisor as follows:
  - At the start of each job, and at least weekly thereafter, a walk-around safety inspection conducted jointly by management and employee.
  - The Supervisor records safety inspections and made available for review.
  - Inspection records to be kept by the Supervisor until job completion.

## 2 ACCIDENT INVESTIGATION POLICY

All accidents that result in injury requiring medical treatment or that could cause serious injury or death shall be investigated by a supervisor and a worker representative. Additionally, incidents that involve:

- Injury
- Structural failure
- Hazardous substance
- Driving incident (WorkSafeBC related)
- Fire or explosion
- Blasting
- Property damage

If the incident is minor in nature and in house investigation by Empire only is required. Further the general contractor is to be copied.

The Occupational Safety and Health Division of the OH&S shall be notified within 8 hours of any accident that results in a work-related fatality or the hospitalization of three or more employees.

### WorkSafeBC Required Reporting

- A worker is seriously injured or killed on the job
- There is a major structural failure collapse of a building, bridge, tower, crane hoist, temporary construction support system, or excavation
- There is a major release of a hazardous substance
- There is a diving incident as defined by OHS Regulation 24-34
- There is a dangerous incident involving a fire or explosion that had potential for causing serious injury to a worker
- There is a blasting incident that results in personal injury or injuries

## 3 OBJECTIVES

Proper accident investigation techniques are an important part of an effective Occupation Health & Safety Program. All significant incidents, as well as near misses, must be investigated as soon as possible.

The interviews with workers and witnesses should take place as soon as possible. The work site will also give valuable clues as to the reasons for the accident if it is examined before anything is moved.

In the case of fatal accidents or major structural failure, our policy requires that the accident scene not be disturbed.

The supervisor of the area will be part of the investigation team, together with a worker representative who is familiar with the work process. The purpose of the investigation should be to prevent future occurrences, not to find fault.

All accident or incident investigations should be initiated as soon as possible after the occurrence. The goals of proper investigation are to:

1. Prevent a recurrence;
2. Identify the cause or causes;
3. Recommend the action needed to correct the hazardous situations and ensure that a process is established to make the correction quickly.

## 4 PRESERVE SCENE OF ACCIDENT

The first concern is to ensure the injured have been treated. When this has been assured then preserve the accident scene. Where rescue work is necessary, or other action is required to prevent further failure or injuries, the accident scene may be disturbed for these purposes.

The scene will be left untouched until an officer of OH&S has investigated the accident or until an officer of the Board has granted permission to clear the scene.

In the case of a fatality, the coroner or police should be contacted immediately.

## 5 INVESTIGATION OF ACCIDENTS/INCIDENT PREVENTION

An investigation will begin immediately and be reported under the OH&S Regulation for any accident which resulted in an injury requiring medical attention, or did not involve injury but had a potential for causing serious injury.

The investigation will:

1. Be carried out by the immediate supervisor or by someone who has knowledge of the type of work involved;
2. Where possible, involve one worker representative and one employer representative;
3. Determine the cause or causes of the accident;
4. Identify any unsafe conditions, acts or procedures that contributed to the accident;
5. Develop appropriate corrective action to prevent similar accidents.

The supervisor and a worker familiar with the work activity will collect and consider any written or photographic information about the accident. An investigation kit should be prepared in advance and stored in a secure place.

It should contain but is not limited to:

1. camera and film
2. pencils and drawing equipment, IE: clip board/sketch pad
3. tape measure and flagging tape
4. accident/incident investigation forms

## 6 CONDUCTING THE INVESTIGATION

Three stages of an accident should be investigated:

1. **Pre-accident stage** - the factors that permitted the sequence of events leading to the accident. These may include employer characteristics (trade, size, safety program, supervision, equipment maintenance, etc.), employee characteristics (age, sex, occupation, health, experience, training, etc.).
2. **Accident stage** - the immediate factors in the accident. These may include what the victim was doing (task, specific activity, posture, location, etc.), materials and equipment directly involved (type, brand, size, guarding, condition, etc.), actions and movements that led to the accident (fall, trip, slip, horseplay, etc.), and environmental characteristics (weather, lighting, noise, temperature, vapours, ventilation, etc.).
3. **Post-accident stage** - the factors occurring after the actual accident that minimized or increased the seriousness of the accident. These may include the response time of emergency personnel, first aid available on site, location and condition of emergency equipment, evacuation plans, personal protective equipment worn or unused.



# FIRST AID & OCCUPATIONAL EXPOSURE

*We practice prevention but we are prepared for the unexpected.*

- Key Points**
- ☑ First Aid will be provided to us when required
  - ☑ First Aid attendants working for us have specific responsibilities
  - ☑ Take the required precautions to avoid contracting any disease
  - ☑ You have the right and obligation to refuse unsafe work

## 1 POLICY

We are responsible to ensure First Aid services are supplied and maintained for our workers. This shall include First Aid Attendants and equipment according to Workers Compensation Act.

We are not responsible to provide first aid coverage unless we are on site when the Safety Officer/FAA not present. We must have a certified FAA who meets the requirements based on the number of our workers on site. All full time employees are encouraged to take a basic first aid training program at company expense.

## 2 FIRST AID ATTENDANT QUALIFICATIONS

Management must ensure a person designated as a first aid attendant:

1. Is at least 16 years old.
2. Has successfully completed the first aid training course
3. Has the required certificate level issued by or a person recognized by the Board.
4. Meets any other requirements determined by the Board.

### 2.1 RESPONSIBILITIES

The first aid attendant must provide injured workers with a level of care within the scope of the attendant's training. They must objectively record observed or reported signs and symptoms of injuries and exposures to contaminants. They must also refer workers for medical treatment if injuries are considered beyond the scope of the attendant's training.

The FAA must be physically and mentally capable of safely and effectively performing required duties and the board may at any time require the attendant to provide a medical certificate.

The FAA is responsible, and has full authority, for all treatment of an injured worker until responsibility for treatment is accepted by an ambulance service or by a person with higher or equivalent first aid certification. The FAA does not have authority to overrule a worker's decision to seek medical treatment or the worker's choice of medical treatment..

#### 2.1.1 FIRST AID CERTIFICATES

A first aid certificate issued to an FAA may be suspended, cancelled or have conditions placed upon its use where the first aid attendant engages in inappropriate conduct, including:

1. Smoking while assessing or treating an injured worker.
2. Failure to use the assessment and injury treatment techniques outlined in
3. First aid training courses unless conditions precluded them.
4. Conduct that poses an unreasonable threat to the safety and well being of others.
5. Removing themselves from being able to see or hear summons for first aid.
6. Abandonment of a n injured worker after beginning assessment or treatment.
7. Refusal to treat an injured worker when acting as a designated first aid attendant
8. Treating or transporting an injured worker while impaired.

9.

### 3 FIRST AID PROCEDURES

Any worker sustaining an injury or illness that is, or maybe, job related must report to the FAA for treatment as soon as possible, no matter how minor. The FAA shall ensure that a record of every injury or illness, which requires first aid treatment, is kept in the Accident Record Book.

The First Aid Treatment Book shall be kept for at least three (3) years and shall be monitored, by Management, periodically. The First Aid Attendant is required to send in their Treatment Record Books to the Safety Manager at head office at the project's completion.

The First Aid Attendant will be in complete charge of all first aid treatment until medical aid is available (i.e. B.C. Ambulance Service, Paramedics). Supervisory personnel will not attempt to overrule the attendant's decisions relating to first aid or emergency transportation. Workers are expected to assist the first aid attendant if asked to do so.

First Aid statistics shall be reviewed by the Safety Manager to determine trends and recommend corrective action.

#### 3.1 FIRST AID REQUIREMENTS

##### Part 3.16 of the OH&S Regulation

We work in environments that are considered high risk. That means workers are exposed to hazards that could potentially produce injuries that range from minor to life threatening.

In order to ensure injured workers are protected we will ensure that, when required, we have a level 1 first aid attendant on site and the required first aid kit when we have 15 or less workers.

For more than 15 workers, a level 2 first aid attendant is on site with the required equipment.

Transportation is provided at our cost to workers needing to go to the hospital or clinic.

1. discard the gloves. Wash your hands with soap and water.
2. When the container is about three-quarters full, replace it with a new one and properly dispose of the old one. Contact your municipality for information on disposal.

# INSPECTIONS

***Workplace Inspections are conducted to eliminate/control hazards in the workplace.***

- Key Points**
- ☒ Inspections are to be done daily and recorded
  - ☒ Hazard assessments should be a routine part of our work
  - ☒ All hazards noted must be addressed in a timely manner

## Part 3.5 of the OH&S Regulation

### 1 POLICY

Supervisors must ensure inspections are made and recorded on a regular basis to help prevent unsafe conditions and acts before they cause an accident. The Inspection Report is to reflect the actual situation and no attempt should be made to understate the occurrence.

### 2 HAZARD ASSESSMENT

#### 2.1 INTRODUCTION

Hazard Recognition, Assessment and Controls are a mandatory part of an OH&S Program. Managers, supervisors, office staff, equipment operators, construction personnel, contractors, and subcontractors all have major roles in identifying and controlling workplace hazards. It is very important to recognize that hazard assessment does not deal strictly with things that are wrong at the present time; but also what could go wrong. When examining the workplace and the work process, keep asking "what if? The knowledge and experience of the people conducting the assessment is of vital importance in this step.

#### 2.2 CONDUCTING A HAZARD ASSESSMENT

A systematic approach to hazard assessments will ensure that all hazards, either real or potential, are noted so that effective measures can be implemented to eliminate or control the hazard. The following list is a guide.

1. Assemble the people that will be involved.
2. Discuss possible hazards with employees.
3. Look for possible hazards originating in environment, material, equipment and people.
4. Keep asking "What if?"
5. Mark on the checklist all items that need attention.
6. Review the findings with supervisors/workers and solicit their input for control measures.

#### 2.3 SAFE WORK PROCEDURES

Safe work procedures (SWP) must be developed for all aspects work to be completed by the contractor. These procedures must be reviewed with all workers before work commences and copies kept on site for review by authorized personal.

SWP must detail the work to be done and what controls are required to ensure worker safety. If the SWP calls for the use of specialized equipment, such as respirators, workers must be trained in the safe use of that equipment before work commences. Records of training must be available on site for review by an authorized personal.

We have developed many SWP for routine and ongoing work that we do. These can be found in the Safe Work Procedure section at the end of this program.



### 3 HAZARD CLASSIFICATION

All hazards found during inspections will be classified as follows:

**Type "A" Hazard (Hazard Rating High)**

A condition or work practice with the potential for causing permanent disability or loss of life or significant property or equipment damage. This hazard requires immediate corrective action.

**Type "B" Hazard (Hazard Rating Moderate)**

A condition or work practice with the potential for causing serious disabling injury or property damage but does not present imminent life threatening hazard. Corrective action should be identified and completed as soon as possible.

**Type "C" Hazard (Hazard Rating Low)**

A condition or work practice that presents a risk of minor injury or loss such as housekeeping, missing light bulbs, etc. requiring a planned corrective action.

Each hazard seen during an inspection will be noted on Form-0007 with the action required to address the hazard and the action taken to address the hazard. All inspection reports must be retained on site for inspection by authorized personnel.

### 4 CORRECTIVE ACTION PLAN

As discovered during inspections, unsafe conditions and acts are to be corrected. Supervisors or designated Foreman must ensure that type "A" hazards are remedied immediately.

Supervisors or designated Foreman must periodically review the inspection reports to identify reoccurring problems and to check on the quality of inspection reports. Recurring problems are to be brought to the attention of the Health & Safety Committee for review.

### 5 WORKPLACE INSPECTIONS

The following points serve as a guide for conducting through work place inspections. It is imperative that only personnel familiar with the work being done conduct daily workplace inspections. Furthermore personnel conducting workplace inspections must have authority to address any hazards noted during their inspection.

**1. ACCESS AND EGRESS**

- safe means of entrance and egress
- clear of debris
- hand rails/guardrails

**2. ATMOSPHERIC CONDITIONS**

- dust, fumes, vapors, etc. controlled at source

**3. PERSONAL PROTECTIVE EQUIPMENT**

- Class "A" footwear
- no loose clothing near moving equipment
- hard hats
- hand protection
- eye protection
- hearing protection
- respiratory protection
- safety harness and lanyards

**4. ELECTRICAL**

- cord insulation intact
- "no tripping hazards"
- three prong plugs are used
- ground fault circuit interrupters used in wet locations
- temporary lighting does not have broken or missing bulbs
- clearance maintained for workers and equipment near high voltage line

**5. FALL PROTECTION**

- Site specific fall protection plan and use of safety harnesses
- lifelines attached to an independent firm structural member
- lifelines have adequate breaking strength and documentation on site

**6. FIRE PROTECTION**

- fire extinguishers are readily available
- regular housekeeping is conducted to prevent fire

**7. GUARDRAILS**

- installed where there is a falling hazard
- complete with top rails at 36 to 42 inches, midrails, toeboard and vertical member not more than 8 feet apart
- gap between rails should not exceed 19 inches

**8. HOUSEKEEPING**

- work area is clean and free of debris
- spilled or leaked liquids are cleaned up
- adequate garbage containers available

**9. LADDERS**

- rungs, rails and ropes in good condition
- placed 1 foot away from base of structure, for every 4 feet in height
- extends 3 feet above platform being accessed
- secure ladder to prevent movement
- job made ladders built according to the WorkSafeBC standard
- remove broken ladders from service

**10. MACHINERY GUARDS**

- prevent contact with moving parts
- prevent access to danger area during operation

**11. REPAIRS TO EQUIPMENT**

- out of order equipment is shut down
- suitable signs have been posted
- suspended and raised equipment is blocked prior to work
- sources of power are locked out





### 12. SCAFFOLDS

- all braces on
- all connectors on
- firm base no concrete blocks
- guardrails on open sides and ends
- planks a minimum of 2-10" in width, no defect, 6-12" overhang
- plumb/tied to structure
- toe boards

### 13. STAIRWAYS

- free of obstruction
- handrails
- adequate lighting

### 14. WALKWAYS

- railing/toe board
- adequate lighting
- free of obstacles

## 6 VEHICLE & EQUIPMENT INSPECTIONS

### 6.1 VEHICLES

All company owned, leased or rented vehicles must be inspected daily. The results of these inspections should be recorded on the applicable inspection record. See section 8 below for a list of applicable records.

As a general rule vehicle operators should do the following each time they fuel a vehicle they are operating;

1. Check the oil, radiator surge tank, washer fluid and brake fluid levels.
2. Inspect the tires and exterior of the brakes. Look for leaks, gouges or damage. Ensure the air pressure for the tires is correct.
3. Check the lights to ensure they are all operating correctly. Have someone assist you with the brake lights.
4. Look for any damage to the body of the vehicle. Note anything which is recent since the last inspection.
5. Note any damage to the interior of the vehicle.

If the vehicle is used routinely by a worker then the worker should ensure that routine and scheduled maintenance checks are completed and recorded. All receipts for maintenance, fuel and lubricants should be submitted a minimum of once per month to the applicable supervisor.

### 6.2 EQUIPMENT

Equipment includes such things as swing stages or boom lifts as well as equipment mounted on vehicles such as HI-AB lifts or concrete pumps. This equipment must be inspected prior to use. The results of these inspections should be recorded on the applicable log record. See section 8 below for a list of applicable records.



# FALL PROTECTION PROGRAM

- Key Points**
- ☑ Fall protection is not an option, it is the law
  - ☑ You require fall protection when working above 10'
  - ☑ You cannot be closer than 6' 6" to an edge without fall protection
  - ☑ A site specific fall protection plan is required for work 25' or more

Part 11.2 of the OH&S Regulation

## 1 POLICY

Fall Protection is an important aspect of our OH&S program to insure that people who work for us can continue to live safe and healthy lives.

We require all employees who work at heights of 3 m (10ft) and over or where a fall from a lesser height involves an unusual risk of injury to be protected by the use of fall protection.

### Part 11.3 of the OH&S Regulation

When risk of falling is more than 7.5m (25ft) a site specific written fall protection plan is needed. A written plan must be in place when a fall hazard is present or a safety monitor and control zone is required. Fall protection systems include (in order of priority):

1. Guard rails
2. Full body harnesses with related equipment
3. Horizontal lifelines
4. Control zones

### 1.1 PURPOSE

You will fall 32' in approximately 1.25 seconds

The intent of the Fall Protection Policy is to assist workers and supervisors to:

1. Identify the fall hazards of the site before work begins at heights.
2. Assist in the selection of an appropriate fall protection system(s)
3. Assist in rescue procedures for someone if a fall should occur.

### 1.2 SCOPE

This Statement of Policy and Procedure applies to all employees and contractors.

## 2 RESPONSIBILITIES

### 2.1 MANAGEMENT

Management is responsible for reviewing workplace-specific written fall protection job procedures prior to implementation and annually thereafter.

### 2.2 SUPERVISORS

Supervisors are responsible for:

1. Ensure workers (employees and contractors) comply with fall protection instructions.
2. Identify workplace fall hazards through job safety analysis.
3. Hold pre-job planning meetings to discuss the fall protection required.
4. Provide approved fall protection equipment for employees including fall restraint and fall arresting equipment.
5. Provide procedures for maintenance and inspection of fall protection equipment.



6. Provide and maintain training records in the use of fall restraint and arrest equipment.
7. Provide attachment points capable of withstanding the forces specified.
8. Assist in the development workplace-specific written fall protection procedures.

### 2.3 EMPLOYEES

Employees are responsible for:

1. Use workplace-specific job procedures provided when working in fall hazard locations.
2. Understand requirements and use of the Fall Protection System.
3. Use equipment only approved
4. Understand the requirement for working near an expose edges.

**We expect all workers to fully comply with fall protection requirements and will take strong disciplinary measures when required.**

## 3 FALL PROTECTION CHECKLIST

Prior to commencing work where there is a risk of a fall, the following aspects must be checked.

1. Body Harness
  - Webbing - frayed, cracked, cut, burned, damaged, loose/broken stitching.
  - Buckles - check for bent, cracked or nicked buckles. Must be interlocking.
  - D-Rings - check for bent, cracked, nicked or gouged rings.
  - Always put on body harness so that it is snug, yet allows you to move.
  - Tuck in all loose ends of straps.
2. Lanyard
  - Check for broken, worn, cut fibers or burns.
  - Ensure both ends have locking snap hooks.
  - A lanyard with an energy absorbing device must be used in all fall protection system.
3. Life Line
  - Check for chafing, abrasion cuts in yarn/strands.
4. Rope Grabs
  - Ensure device is suitable for the diameter of rope you are using.
  - Check for deformities and excessive wear.
  - Ensure you install it RIGHT SIDE UP.
  - Test it to make sure it works.
5. Anchor Points
  - Approved by supervisor (engineered) or Construction Safety Coordinator
  - Always protect life lines and tie backs from abrasion.



## 4 FALL PROTECTION WORK PLAN

Prior to the start of any project, a review of the fall protection needs for the specific project shall be undertaken. A site specific Fall Protection Work Plan shall be developed and implemented and ongoing training and review of the program shall take place as the project proceeds.

The review shall include the identification of fall hazards, decisions on types and methods of fall protection to be used, procedures for assembly, maintenance, inspection and disassembly of equipment as well as the training requirements necessary for the Fall Protection Work Plan.

1. Training in the Fall Protection Work Plan shall include job orientation, instruction on fall restraint and fall arrest as well as fitting of personal protective equipment.
2. Employees working at elevations greater than 10 feet, where there is a risk of injury from falls, must include, but are not limited to installing walls floors, railings, and standard guardrail systems;
3. Using personal fall restraint or fall arrest protection.
4. There must be adequate attachment points available at each location where fall protection systems are used.
5. When working in 'fall hazard' areas, job site specific Fall Protection Procedures must be used. Contact the Site Safety Coordinator for information and appropriate equipment.
6. Always wear appropriate PPE when passing through an active overhead work area.
7. Always use measures to control or restrict access when working below or around others working overhead.
8. Fall protection equipment shall not be used by workers until they have been adequately instructed in the safe use and handling of the equipment and have demonstrated that they understand the instruction.

### 4.1 FALL RESTRAINT PLAN

Fall restraint is rigged to allow the movement of workers only as far as the sides and edge of the working area. As part of the rigging, anchorage points conforming to the four times intended load criteria must be provided for each fall restraint device in use.

The plan involving the use of fall restraint systems shall include:

1. Holding a pre-job meeting to address and discuss the fall protection requirements including any training or review.
2. Working within the confines of a standard guardrail system.
3. Wearing approved fall restraint equipment, which is attached to securely, rigged restraint lines. This would include checking restraint line length to ensure limits of approach.
4. Confirming that all fall restraint devices are compatible.
5. Inspecting all restraint components before each use to ensure no excessive wear, damage or other deterioration. Always remove defective components from use and mark them as such to prevent others from using them.
6. Tying of restraint lines. These are to be tied independently of other lines and to an approved anchorage point only.



### 4.2 FALL ARREST PLAN

Workers exposed to a free fall distance of 10 feet or more (without restraint) are required to wear fall arresting equipment consisting of a full body harness.

The plan involving the use of fall arrest systems shall include:

1. Holding a pre-job meeting to address and discuss the fall protection requirements including any training or review.
2. Inspecting all components before each use to ensure no excessive wear, damage or other deterioration. Always remove defective components from use and mark them as such to prevent others from using them.
3. Securing of full body harness system to approved anchorage points. Anchorage points must be capable of supporting 5000 lbs.
4. Ensuring that safety lines are rigged in such a manner as to limit the free fall distance to 6 feet. Ensuring that safety lines are protected from cuts, wear and abrasion.
5. Ensuring that only one worker may be attached to any one vertical safety line. Ensuring that the attachment involves the use of locking snap hooks to "D" rings only.
6. Ensuring the removal from service, until checked and re-certified for use, any harness equipment / components which have been involved in a fall.
7. Get manufacturer's specifications on total dynamic load capability of life line and keep records on site.
8. Safety belts and/or harness shall conform to CSA Standard:
  - Class III full body harness
  - Class IV suspension/position belt

**The system strength needs in the following items are based on a total combined weight of employee and tools of no more than what the Manufacturer's specification. If combined weight is more than the Manufacturer's specification, appropriate allowances must be made or the system will not be deemed to be in compliance.**

### 4.3 DEVELOPING A FALL PROTECTION PLAN

Before a fall protection plan can be developed all work areas must be reviewed and the likely locations of fall hazards must be identified. As part of the hazard assessment the location of anchor points and other hazards should also be reviewed. One hazard of particular importance is exposed rebar.

When the hazard assessment is completed and reviewed the fall protection plan can be completed. Form-0011 will provide a concise format for writing the fall protection plan. Complete all fields that are applicable.

Once the plan is written it is imperative to ensure that the equipment called for in the plan is available on site. Furthermore any training that is required must be conducted prior to workers using that equipment.

Prior to commencing work the plan must be reviewed with all workers who will be working in areas covered by the plan. The plan must be available on site for review by authorized personnel. A copy should be given to the site safety representative once the plan has been reviewed with the crew.

New workers starting on the site should also review the plan prior to commencing work.

## 5 CONTROL ZONES

### Guidelines for Part 11 G11.2(5)-1 of the OH&S Regulation

Another method of fall protection is the institution of a control zone in the work area. Control zones are used for leading edge or fixed edge work.

The plan involving a control zone system shall include;



1. A minimum distance from the edge of 6' 6" shall be maintained to protect workers not wearing fall restraint or fall arrest equipment.
2. All workers within 6 feet of the edge must use fall restraint or fall arrest.
3. Warning lines or barriers must be installed to separate the control zone from the edge of the building. These lines are generally made of wire, rope or chain adequately supported on stanchions. Warning lines must be raised off the work surface to maintain a height of 39-45 inches above surface.
4. All warning lines must be marked with high-visibility materials at least every 6 feet.
5. Warning lines must be capable of resisting, with tipping over, a force of at least 16 pounds applied horizontally.
6. Control zones shall be inspected at the beginning of each shift to ensure the integrity of the control zone and no damage or disruption of the warning line system.

## 6 CLEAN UP AND STORAGE

All fall protection equipment should be stored in a dry area to prevent deterioration. Always inspect fall protection equipment thoroughly prior to placing in storage. Remove any damaged equipment from service and have it repaired and re-certified prior to future use.

## 7 INSPECTION, MAINTENANCE AND REMOVAL FROM SERVICE

Inspect components of the fall arrest system before each use for wear, damage and other deterioration. Defective components are to be removed from service and replaced.

Once a fall protection system has arrested the fall of a worker it must be removed from service and not be returned to service until it has been inspected and certified as safe for use by the manufacturer, it's authorized agent or a professional engineer

Use Form-0060 to record the results of routine inspections of all fall protection equipment. These forms should be retained on site for inspection by authorized personal.

## 8 TRAINING

All employees required to work in fall hazard locations shall be trained in the safe use of fall protection equipment. This will include but is not limited to;

1. Fall protection concepts and principles
2. Fall protection hazard assessment basics
3. Fall protection equipment
4. Safe use of lifelines
5. Identification of adequate anchor points
6. Use of specialized anchor systems

Supervisors shall be given additional training in hazard assessments for fall protection and the development of safe work procedures and fall protection plans.





# HEARING PROTECTION PROGRAM

***Noise-induced hearing loss occurs as a result of exposure to sounds over 85 dbA. How much time is required for hearing loss is not well known. What is known is hearing loss will occur unless you take appropriate precautions.***

- Key Points**
- ☒ Hearing loss in our industry is very possible
  - ☒ You must take the appropriate steps to protect your hearing
  - ☒ Hearing tests are mandatory every 12 months

## 1 POLICY

We take your hearing very seriously and recognize that hearing loss is a progressive and that early prevention is the key to keeping your hearing intact. Each supervisor shall ensure that:

1. Hearing protective devices are available for all workers.
2. Hearing protection is used by all persons entering noise hazards areas.
3. Ear protection devices inserted in the ear shall be fitted or determined individually by competent persons.
4. Plain cotton is not an acceptable protective device.

## 2 NOISE MEASUREMENTS

Noise level measurements are not required in the construction industry when;

1. Employers recognize workers may be exposed to noise levels above allowable limits.
2. Employer establishes effective noise control and hearing conservation programs.

If there is a need to conduct noise level testing we will enlist the aid of a qualified agency to assist us in evaluating the hazard to workers. The results of this testing will form the basis for a plan to control the noise hazard present.

### 2.1 NOISE DOSIMETERS

When noise testing is required on site a noise dosimeter will be used. Noise dosimeters must meet requirements and standards acceptable to the board.

Noise exposure measurement results must be recorded and specify;

1. The date of noise measurement.
2. Workers or occupations evaluated.
3. Equipment used.
4. Name of the worker and/or agency that took the measurements.

Results must be readily available for reference by a WorkSafeBC officer or safety committee.

Non-integrating noise measuring equipment used it must be described and justified in writing.

## 3 EDUCATION AND TRAINING

### Part 7.5(b) of the OH&S Regulation

We will inform workers exposed to daily levels of noise between 82 dbA Lex and 85 dbA of;

1. Risks of hearing loss due to excessive noise exposure
2. Significance of those results to the risk of hearing loss, and
3. The purpose of hearing protection and the need for testing



## 4 NOISE CONTROL

### Part 7.5 of the OH&S Regulation

If a worker is exposed to noise above exposure limits, we will;

1. Investigate options for noise control
2. When practicable, implement options to reduce worker exposure to or below limits.

### 4.1 HEARING PROTECTION

#### Part 7.7 of the OH&S Regulation

If it is not practicable to reduce noise levels to or below the exposure limits (85 dbA Lex daily exposure and 135 dbA peak sound level), we will;

1. Reduce noise exposure to the lowest level practicable
2. Provide and maintain hearing protection to all workers in accordance with all applicable standards and regulations.
3. Provide hearing protection, and ensure that all hearing protection is worn effectively.

It is the responsibility of the workers to wear hearing protection when exposed to decibel levels above accepted exposure levels (see part 7.2) or where a Noise Hazard Sign has been posted. It is also a requirement that workers must periodically replace any damaged ear protection and properly clean earplugs or earmuffs to maximize its life span.



**THIS IS A WARNING** – Hearing loss can occur so gradually you may not know it is happening – until too late. Once you have damaged your hearing, it can never be regained. This is why it is so important to wear the appropriate hearing protection provided in the workplace.

The following chart outlines some common construction decibel levels:

| Activity            | Decibel Level |
|---------------------|---------------|
| Chain Saw           | 95 – 100      |
| Pneumatic Drill     | 100           |
| Crane Operation     | 82 – 99       |
| Welding             | 84 – 97       |
| Normal Conversation | 50 - 60       |



## 5 NOISE HAZARD AREAS

If it is not practicable to reduce noise levels to or below the exposure limits (85 dBA Lex daily exposure and 140 dBA peak sound level), we will:

1. Post and maintain clearly worded signage that warns individuals they are entering an area where dangerously high levels of noise exist.
2. Supply all workers in such an area with appropriate hearing protection based on the worker's eight-hour noise exposure.

Hearing protection required for specific noise exposure is shown in the table below.

| Maximum equivalent noise level | Recommended class of hearing protector                         |
|--------------------------------|--|
| Less than 85 dBA               | No protection required   |
| Up to 89 dBA                   | Class C  |
| Up to 95 dBA                   | Class B  |
| Up to 105 dBA                  | Class A  |
| Up to 110 dBA                  | Class A plug plus Class A or Class B muff                      |
| More than 110 dBA              | Class A plug plus Class A or Class B muff and limited exposure |

Supervisors will ensure that all workers are wearing hearing protection at all times when exposed to noise hazards.

It is the responsibility of the employees to wear hearing protection in all posted noise hazard areas in accordance with the instructions received by the supervisor/employer.

## 6 HEARING TESTS

### Part 7.8 of the OH&S Regulation

We will ensure that adequate hearing test facilities are provided on site to all our workers exposed to noise levels exceeding 85 dBA as follows:

1. Workers will be tested within 6 months of commencing work with us.
2. Hearing tests will be conducted by a recognized agency on an annual basis to effectively monitor the hearing of noise-exposed workers.
3. A copy of the test results will be given and explained to the employee after the test is complete. A record of the results will be kept with the workers file.

It is the responsibility of the workers to keep a copy of their hearing test.

## 7 PROGRAM REVIEW

We will review the noise control and hearing conservation program annually to ensure it remains effective. The review will address the following:

1. The need for further noise measurement in affected work areas.
2. Education and training of workers regarding noise exposure.
3. Adequate noise control measures.
4. Selection and use of hearing protection.
5. Hearing testing and information on the rate and extent of occupational hearing loss.
6. The requirement of the OH&S committee to be on site to participate in the program review.



# WHMIS

- Key Points**
- ☑ **WHMIS is Law and must be followed for all controlled products**
  - ☑ **MSDS must be available for all controlled products on site**
  - ☑ **MSDS must not be older than three (3) years from the date of issue**
  - ☑ **If the MSDS requires certain PPE be worn the PPE will be provided to you**

## 1 POLICY

Workers exposed to hazardous materials may be at risk for many serious health problems, such as kidney or lung damage, sterility, cancer, allergic reactions, or burns. Some hazardous materials can also cause fires or explosions. The Workplace Hazardous Materials Information System (WHMIS) provides specific health and safety information about workplace hazardous materials called controlled products. Employers must use this information as well as information specific to the workplace to educate and train workers to work safely with and near hazardous materials.

## 2 EMPLOYER RESPONSIBILITIES

If controlled products are used in the workplace the employer, in consultation with the joint committee or worker health and safety representative, as applicable, must establish and maintain an effective WHMIS program, as part of the overall workplace health and safety program, which

- a. addresses applicable WHMIS Requirements including education and training, and
- b. is reviewed at least annually, or more frequently if required by a change in work conditions or available hazard information.

## 3 WHMIS OVERVIEW

The overall purpose of WHMIS is to help ensure a safer, healthier workplace. Knowledge about the workplace is the biggest asset in successfully understanding and benefiting from WHMIS.

Workers who are successfully educated and trained in WHMIS should be able to answer these four questions:

1. What are the hazards associated with controlled products? (For example, How can it hurt me?)
2. How do I protect myself? (For example, What should I wear?)
3. What should I do in an emergency? (For example, What do I do if I spill it?)
4. Where do I get more information?

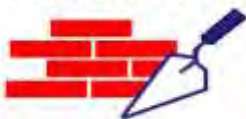
Under WHMIS, workers have the right to receive information about each controlled product they use — its identity, hazards, and safety precautions. The goal of WHMIS is to reduce injury and disease by communicating specific health and safety information about controlled products so that the information can be used to reduce exposure to hazardous materials.

## 4 HAZARDOUS MATERIALS

Exposure to hazardous materials can result in health problems such as irritation of the eyes, sensitization of the skin or lungs, heart ailments, kidney and lung damage or cancer. Hazardous materials can cause fires, explosions, or other accidents when improperly stored or handled.

## 5 LEGISLATION

Federal Legislation (Hazardous Products Act and Controlled Products Regulations) deals with importation and sale of controlled products. The Hazardous Materials Information Review Act established a commission to review claims for trade secrets. Provincial Legislation (Occupational Health and Safety Regulation) covers the use of hazardous materials in the workplace.



## 6 WHMIS ELEMENTS

WHMIS controlled products are classified by their hazard. There are six hazard classes and eight hazard symbols that identify the specific hazards. (There are three symbols in Class D.) The eight hazard symbols identify the specific hazards of controlled products. After a controlled product has been classified, the following three WHMIS elements are used to communicate health and safety information:

1. **WHMIS labels:** Labels on controlled products alert workers to the identity of the product, hazards, and precautionary measures.
2. **Material Safety Data Sheets (MSDS):** Technical bulletins provide detailed hazard and precautionary information.
3. **WHMIS education and training programs:** The employer provides education and training for workers so that they can work safely with and near controlled products. Workers need to know how WHMIS works, the hazards of controlled products in their workplace, and the safe work procedures they must follow.

## 7 KEY WHMIS PARTICIPANTS

The key WHMIS participants are:

1. Suppliers:
  - a. classify all controlled products
  - b. supply proper labels and MSDS
  - c. keep information on labels and MSDS current
2. Employers:
  - a. educate and train workers
  - b. provide safe work procedures
  - c. ensure availability of proper up-to-date labels and MSDS
3. Workers:
  - a. understand content and significance of labels and MSDS
  - b. follow safe work procedures
  - c. notify employers about problems with labels and MSDS

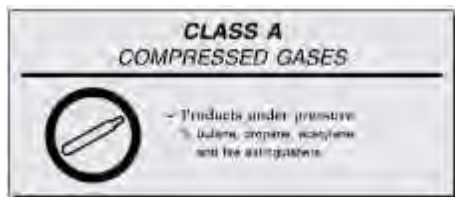
## 8 CLASSIFICATION

Classification determines if a product falls within one or more of the hazard classes. Suppliers classify controlled products and apply hazard symbols.

### 8.1 CLASSES AND SYMBOLS

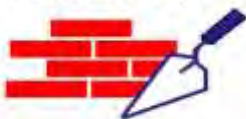
WHMIS covers six classes of controlled products, that are lettered A through F. Eight hazard symbols are used to depict the specific hazards within these different classes. (Class D contains three hazard symbols.) Note: the products, substances, and materials listed in each of the following graphics are examples only.

#### WHMIS Class

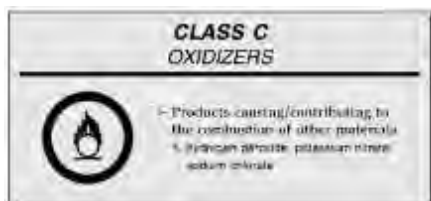
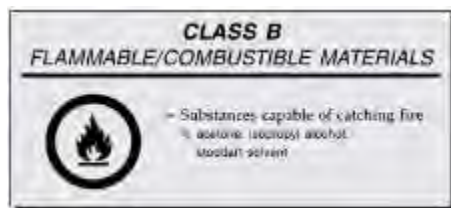


#### Hazards

If a pressurized container is punctured because it is dropped or exposed to excessive heat, the exploding fragments or rocket-like projectiles present a serious physical hazard. Examples include chlorine contained in a pressurized cylinder and used as a disinfectant at swimming pools, and oxygen used in oxyacetylene welding.



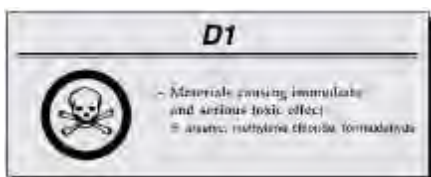
## OCCUPATIONAL HEALTH & SAFETY PROGRAM



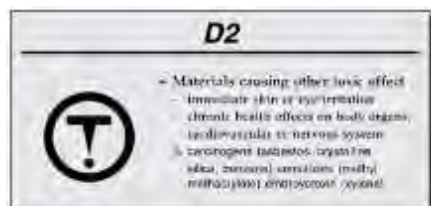
These materials can pose a danger of fire and explosion. Flammables are more dangerous than combustibles because they ignite more easily. During use, they must be kept away from ignition sources such as sparks or open flames. When not in use, they must be stored in fire-resistant cabinets or other specified storage areas.

Oxidizing materials greatly increase the risk of fire if they come in contact with materials that can burn. They should never be stored near flammable or combustible materials.

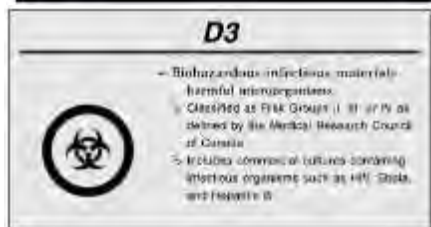
### Class D: Poisonous and Infectious Materials



Materials causing death or immediate injury. Examples include highly toxic sodium cyanide, used in the electroplating industry, which can be absorbed through the skin. The toxic gas, hydrogen sulphide, used in laboratories and present in petroleum and pulp and paper industries, can cause death when inhaled.



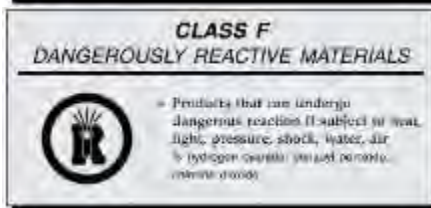
Poisonous and infectious materials causing immediate skin or eye irritation or long-term health problems, such as skin/lung allergic response, birth defects, cancer, reproductive problems, or impairment of body organs and systems.



Microorganisms (includes viruses, bacteria, fungi) causing disease in persons and animals. They may be present in cultures. Products containing biohazardous infectious materials may be found in laboratory and research facilities associated with the medical or agricultural sectors.



Corrosive materials include caustics such as lye and acids. They can cause permanent damage (e.g., burns) to skin and eyes.



This class includes products that can undergo vigorous polymerization reaction on their own, or become self-reactive when exposed to shock or to increase in pressure or temperature. It also includes products that react vigorously with water to release a toxic gas.

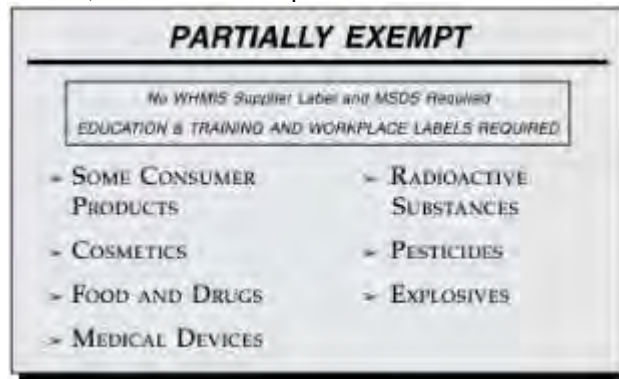
## 8.2 EXEMPTIONS





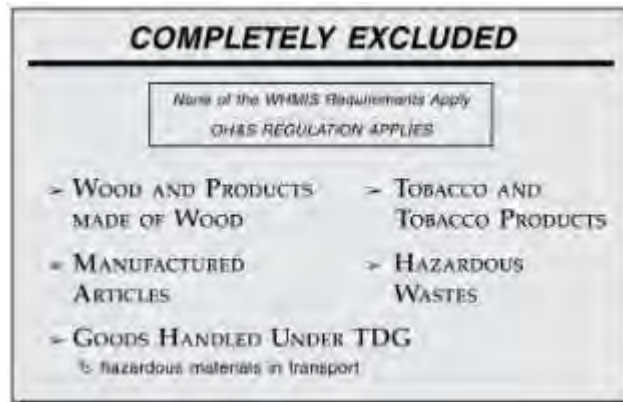
### 8.2.1 PARTIALLY EXEMPT

Some products are already covered by other labelling legislation and do not require WHMIS labels and MSDSs. However, Provincial legislation requires employers to educate and train workers about the hazards of partially exempt products and in safe work procedures, and to use workplace labels.



### 8.2.2 COMPLETELY EXCLUDED

Some products are completely excluded from both Federal and Provincial WHMIS requirements. However, workers must be advised of hazards and trained in safe handling procedures, as required under other provisions of the Occupational Health and Safety Regulation.



## 9 LABELS

### 9.1 WHMIS LABELS

The purpose of labels is to alert workers to the main hazards of controlled products and provide instructions for safe handling, and to direct workers to the MSDS for more information.

The two types of WHMIS labels are the supplier label and the workplace label. Other means of identification may be used where appropriate (such as warning signs, colour codes, placards)

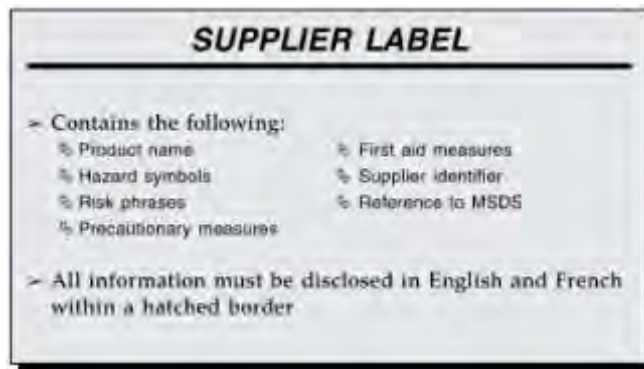
### 9.2 SUPPLIER LABEL

Suppliers must provide supplier labels on containers of all controlled products sold or imported for use in the workplace.

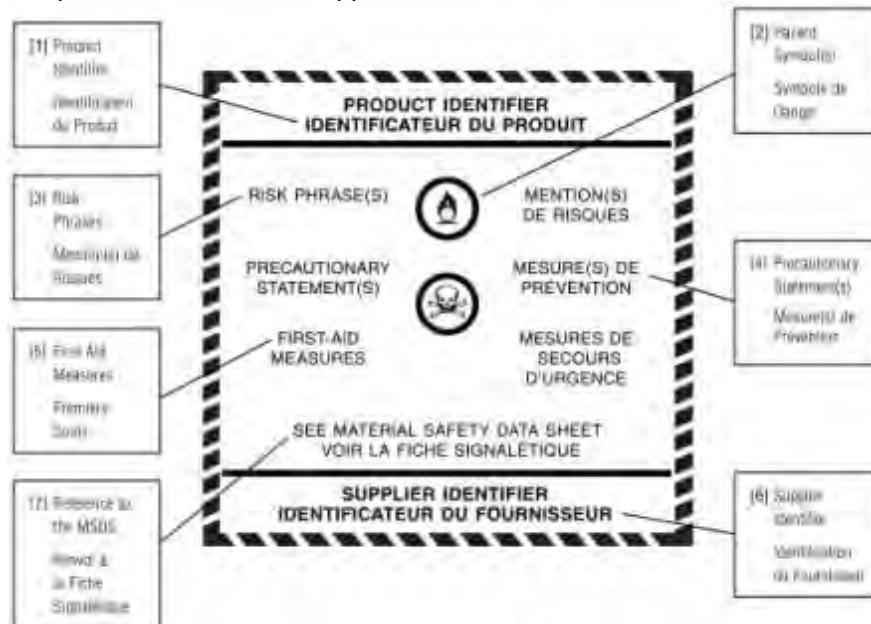
- Supplier labels will show seven types of information within the WHMIS hatched borders.
- The written information must be shown in both English and French.
- The label must stand out from the container itself and other markings on the container (for example, the size of the label should be appropriate for the size of the container).



## OCCUPATIONAL HEALTH & SAFETY PROGRAM



Acceptable format for the Supplier Label:





# OCCUPATIONAL HEALTH & SAFETY PROGRAM

Supplier Label Example:

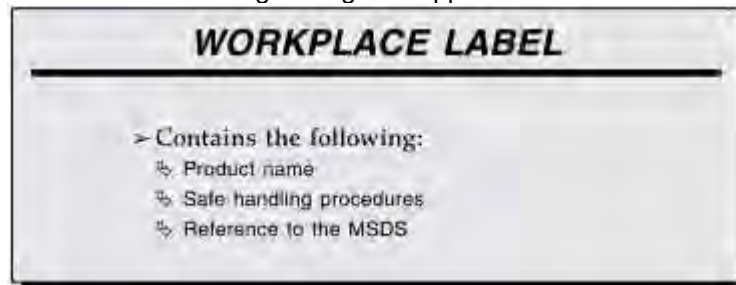


## 9.3 WORKPLACE LABELS

Workplace labels are required on containers of controlled products produced on site, and on secondary containers where the product has been transferred from the original container.

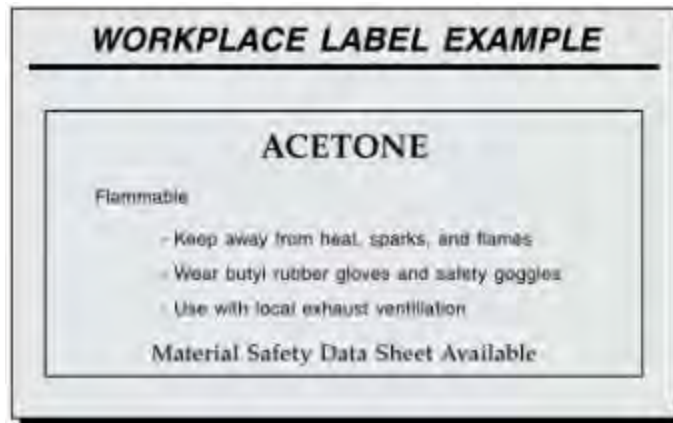
Workplace labels are applied to:

- Secondary containers
- Containers of products received in bulk
- Employer-produced products
- Containers with missing or illegible supplier labels



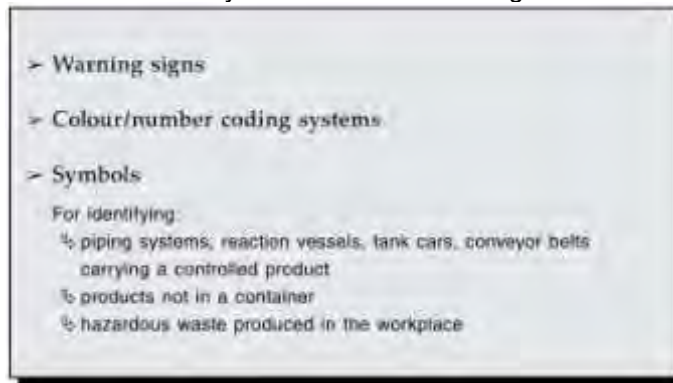
The format for workplace labels is flexible and may be in the language of choice in the workplace.





#### 9.4 OTHER MEANS OF IDENTIFICATION

Other means of identification may be used in the following circumstances.





# ELECTRICAL SAFETY PROGRAM

- Key Points**
- ☑ GFCI is mandatory when working in wet conditions
  - ☑ Keep the GFCI receptacle and circuit breaker in dry locations
  - ☑ The assured grounding program is an alternative to GFCI

## 1 GROUND FAULT CIRCUIT INTERRUPTERS (GFCI'S)

### Part 19.15(1) of the OH&S Regulation

When used outdoors or in wet location, portable electrical equipment, including temporary lighting, must be protected by an approved class A GFCI installed at the receptacle or on the circuit at the panel, unless another acceptable means of protection is provided.

Electricity will take the shortest path to ground. If you are in the path it will flow through you with potentially deadly results

The "portable electrical equipment" referred to in Section 19.15(1) includes cords and tools on 120 volt systems at 20 amps or less and not hard-wired to permanent electrical system.

A GFCI is a device that detects any leakage current in an electrical circuit and trips (turns off) the circuit whenever the leakage current is greater than 5 mA.

Three types of GFCI's can be used at worksites:

1. A GFCI receptacle can be used in place of a standard receptacle.
2. A portable GFCI, when plugged into a standard receptacle, converts a standard receptacle into a GFCI receptacle.
3. GFCI circuit breaker combines leakage current detection with circuit breaker function.

To prevent nuisance tripping of GFCI's, the following good work practices are recommended:

- Mount GFCI receptacles and GFCI circuit breakers in dry locations; if this is not possible, use portable GFCI's rated rainproof.
- Connect only one power tool to each GFCI.
- Cover power tools to protect them from the rain when they are not in use.
- Store power tools and extension cords in a dry location.
- Maintain extension cords and power tools in good condition.
- Use extension cords that are rated for hard usage or better.
- Do not use extension cords longer than 45 metres (150 feet).

## 2 ASSURED GROUNDING PROGRAM

**Effective November 1, 2007 the Assured Grounding Program is accepted as an alternative to GFCI only under conditions stipulated in Section 76-016 of the Safety Standards Act.**

Section 76-016 is applied to temporary wiring for buildings under construction or demolition. This includes all installations serviced by a temporary power service.

### 2.1 DESIGNATED PERSON

Supervisors must ensure program provisions are followed and all electrical tools and cords are inspected, tested, and a record of all testing is maintained. The Supervisor may inspect and log the equipment, or appoint a designated person to do so. This person must be able to answer WorkSafeBC officer questions regarding the program's testing and procedures.

## 2.2 WORKER TRAINING

All workers using cords and power tools under Assured Grounding must be trained on:

1. Daily visual inspections of cords and electrical tools.
2. Testing frequency.
3. Testing procedures.
4. Testing Identification and color coding.

## 2.3 DAILY VISUAL INSPECTION

Extension cords and tools must be checked daily for damage workers using them, including:

1. Insulation damage.
2. Indication of possible internal damage.
3. Damaged plug or cap.
4. Broken, cracked or burned receptacles.
5. Missing ground pins on power tools or electric cords.

Any damage must be repaired before use. Damaged extension cords and power cords of tools must not be spliced; cords can either be replaced or shortened to remove the damaged portion.

## 2.4 CONTINUITY AND POLARITY TESTING EVERY THREE MONTHS

A qualified worker must test all extension cord and power tool for circuit continuity and correct polarity before used for the first time, following repairs, and in January, April, July and October.

### 2.4.1 TESTING PROCEDURE

1. Equipment grounding conductors are tested for continuity, and must be electrically continuous.
2. All receptacles mounted on portable power distribution equipment must be inspected and tested.
3. Each receptacle and attachment cap or plug shall be tested for correct attachment of the grounding conductor.
4. The equipment grounding conductor shall be connected to its proper terminal.
5. Power tools and cord sets will be inspected for damage and missing ground pins and will also be tested for correct polarity.

### 2.4.2 COLOUR-CODING – PROOF OF TESTING

Extension cords and power tools that have been tested must be tagged with a coloured band about 10 centimeters (4 inches) from the male plug. Coloured electrical tape is suitable for this purpose. A different colour is required for each quarter of the year (see box below). These colours are standard for all worksites using an Assured Grounding Program in British Columbia.

| Red                      | White            | Blue                    | Green                       |
|--------------------------|------------------|-------------------------|-----------------------------|
| January, February, March | April, May, June | July, August, September | October, November, December |

As an example, a new extension cord tested on February 8<sup>th</sup> will have a red tag at the male plug. The extension cords must be re-tested and marked with a white tag during April.



# RESPIRATORY PROTECTION PROGRAM

**Key Points** ☒ You must be trained before using a respirator

**A fit test is required annually**

**Air purifying respirators cannot be used when the oxygen level is below 19.5%**

## 1 PURPOSE & RESPONSIBILITIES

### 1.1 PURPOSE OF THE RPP

The Respiratory Protection Program (RPP) is in place to ensure that the exposure of workers to known breathing hazards is reduced to levels which will ensure the safety of those workers.

This program is applicable to any sub-contractor on site whose workers will be required to use respiratory equipment as part of their work activities. This plan is the minimum standard and will be used to evaluate the performance of all sub-contractors subject to the requirements of Part 8.32 of the OHS Regulation.

This plan will address the most common hazards which workers may be exposed to such as:

Wood dust.

Silica dust.

Masonry Dust

Controlled substances which may require the use of a respirator.

This plan addresses the use of air purifying respirators only.

### 1.2 OBJECTIVES OF THE RPP

This plan has the following objectives;

- Prevent any risks of Intoxication from potentially harmful contaminants.
- Control chronic exposure to these products.

As much as is possible, these potentially harmful contaminants will be eliminated through mechanical means (ventilation, local suction systems, product isolation, specific process utilization, product substitution, etc.). All proper Respiratory Protection Equipment and necessary accessories and material for maintenance / cleaning are supplied free of charge to employees. Filtering Cartridges are supplied as required.

We will actively promote:

- Safe working behaviors.
- Continuous process improvement.
- Require each employee's full participation and responsibility for their actions.
- Demonstrate firm leadership in order to reach our ultimate goal of zero work related accidents or illness.

### 1.3 EMPLOYER RESPONSIBILITY

Employers are required to establish and maintain a respirator program if a risk assessment has identified a breathing hazard:

1. Provide respirators and respiratory equipment, such as replacement filters and cartridges, and materials for workers to clean and store their respirators, at the company's cost.
2. Select the appropriate type of respirator for the breathing hazard. NIOSH approved respirators are accepted for use by WorkSafeBC.
3. Ensure that workers participate in the selection of their individual respirators in consultation with their Occupational Health and Safety Committee representative or health and safety representative, as applicable.



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

4. Ensure that workers are fit tested.
5. Provide supervisors and workers with instruction and training in safe use of respirators, including fitting, seal checking, wearing, cleaning, maintenance, and storage.
6. Ensure that respirators are worn when necessary and seal checks are performed.
7. Make sure equipment is maintained, inspected, repaired, or replaced.
8. Obtain a medical assessment if there is a concern about a worker's ability to wear a respirator.
9. Develop emergency evacuation procedures if necessary and ensure that supervisors and workers receive appropriate training for rescue and evacuation.
10. Report and record all illnesses or injuries that result from breathing hazards and that require medical aid.
11. Keep records of your respirator program, including worker training, fit test results, and maintenance.

### 1.4 SUPERVISOR'S RESPONSIBILITIES

If the workplace contains dangerous air contaminants such as gases and vapours, dusts, fibres, mists, fumes, bacteria, spores, and pollen, supervisors and his/her workers may require respiratory protection. A supervisor plays a crucial role in the health and safety of all workers, including making sure the workers always wear their respirators when they are exposed to breathing hazards.

Supervisors must ensure that workers:

1. Are aware of breathing hazards
2. Have respirators available when needed
3. Participate in the selection and fit testing of their respirators
4. Perform seal checks for proper fit
5. Wear respirators every time they are needed
6. Properly clean, inspect, maintain, and store their respirators
7. Get a replacement for any damaged respirator or equipment part
8. Replace disposable respirators when damaged or clogged
9. Report difficulties during respirator use, such as discomfort, skin irritation, or breakthrough of contaminants causing breathing difficulty.

If you notice any issues, you must make the worker and/or employer aware of them.

Because the supervisor's knowledge of the workplace, s/he can also play an important role in:

Identifying breathing hazards and making suggestions as to how they can be eliminated

Being alert to changes in the workplace that could require a change in the type of respiratory protection measures being used

### 1.5 WORKER'S RESPONSIBILITIES

A worker who is required to use personal protective equipment must:

#### **Before wearing the respirator**

- Participate in the selection and fitting of your respirator.
- Check that you have the right respirator for the job. Single-strap dust masks and surgical masks do not provide respiratory protection.
- Make sure you are instructed and trained in the proper use of your respirator, including how to fit and wear it, and how to clean, inspect, maintain, and store it.

#### **When you put on your respirator**

- Fit test your respirator when you get it and at least once a year.
- Seal check your respirator each time you put it on. Make sure nothing interferes with the seal (for example, facial hair, glasses, or earmuffs).
- Wear your respirator when required and follow safe work procedures.

#### **When you take off your respirator**

#### **If your respirator is reusable:**

- Clean and inspect it, and report any damage to your supervisor or employer.



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

- Place it in a clean resealable bag and store it in a clean, safe place such as a cabinet or locker.

### **If your respirator is disposable:**

- Check for damage and replace as necessary.

Workers are to advise the supervisor or employer know if they have any doubts about their ability to wear a respirator for medical reasons. Workers may require a medical assessment. The doctor will need to know the type of respirator that will be used and why the worker will be wearing it. If possible, the worker is to bring it along to the appointment.

## **1.6 JOINT OCCUPATIONAL HEALTH AND SAFETY COMMITTEE**

The JOH&S Committee will assist in the selection of the required Personal Respiratory Protection Equipment to be used. Prior to selecting the respirator(s), a hazard assessment must be conducted. The results of the assessment will be forwarded to the JOH&S Committee for review to assist it in the selection of the appropriate respirator to use on site.

## **1.7 CONTAMINATE IDENTIFICATION**

The primary air contaminants found in our work places will be those comprised of dust. The dust of major concern is that of Silica dust whose primary source is from cement. That means any worker who is works directly with cement is being exposed to this type of dust and, therefore, must have the appropriate respiratory protection.

Other forms of dust are less harmful but still pose a hazard with regards to irritation of the respirator track.

Other types of air contaminants are those which come from controlled substances used in the workplace. Waterproofing agents are the primary source but there are others that produce potentially harmful vapours or gases.

Refer to the MSDS for any controlled product workers are going to be using to ensure that proper cartridges are installed on the required air purifying respirator.

## **1.8 APPROVED RESPIRATOR & FILTERS/CARTRIDGES**

### **1.8.1 RESPIRATORS**

There are four (4) types of air purifying respirators authorized for use by our workers. If another type of respirator is required or requested it must first be evaluated by management.

Various types of dust masks are available and can be used for light duty cleanup of wood cuttings or road sweeping. If there is the possibility of exposure to Silica dust during any of these activities, then an air purifying respirator must be used with the appropriate filter. If new hazards are identified or the respirators selected are not suitable, management will select a new respirator for use in the workplace.

### **1.8.2 SUB-CONTRACTORS**

Sub-contractors are responsible to ensure that they have a respirator program in place prior to their workers being exposed to harmful substances. The respirator program must contain, as a minimum, a statement of responsibilities (employer, supervisors and workers), identification of the hazard(s) workers will be exposed to, a statement regarding training to include details of fit testing and safe use of filters or cartridges, and the types





## OCCUPATIONAL HEALTH & SAFETY PROGRAM

of mask(s) which will be used to control exposure. This plan must be submitted prior to work commencing and should include all applicable training records and safe work procedures. Only after we have reviewed the above documents and found them to meet the requirements of the Regulation can work begin.

### 1.8.3 FILTERS & CARTRIDGES

Filters are used to purify air for breathing by removing particulate matter. Filters are comprised of a filter membrane which will allow various sized particles through based on the efficiency rating of the filter. Filters are rated 95% effective, 97% effective or 99.7% effective, the latter of which is considered adequate for filtering all types of particulate matter from the air.

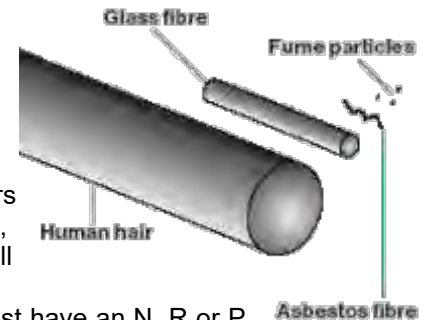
Filters to be used in workplaces identified in this plan must have an N, R or P rating and must be 100% efficient (i.e. HEPA). For example we generally issue P-100 filters on respirators worn by cement finishers as they may be exposed to oils in the workplace.

Cartridges come in a variety of different formats, each designated for use against a specific set of substances. Refer to the MSDS for the product being used to determine which cartridge may be required.

Cartridges and filters can be combined in a single unit if required. This will ensure that a worker who is exposed to both a fume and particulates simultaneously will be protected. Filters and cartridges for different manufacturers are not compatible with the others respirators. Adequate quantities of each type of filter and/or cartridge must be available to ensure workers are not prevented from working due to a shortage of equipment.

Some important points to observe if gas and vapour cartridges are fitted to the workers respirator:

1. Do not use them in oxygen-deficient situations (less than 19.5% oxygen).
2. Do not use them to protect against very toxic gases or vapours, such as ethylene oxide or cyanides.
3. Do not use them to protect against dusts, mists, and fumes unless they are fitted with a pre-filter.
4. Do not use them when the contaminant concentration in the workplace is above the maximum use concentration (see the manufacturer's instructions)
5. Do not use them when the gases or vapours have poor warning properties—with diisocyanates and methanol, for example.
6. Do not use them to protect against gases and vapours that are not readily removed by chemical cartridges—for example, nitrogen dioxide, nitrous oxide, and nitric oxide







## 2 TRAINING

Employers must ensure that every employee required to wear a respirator is trained properly to use this equipment. This training must include:

1. Descriptions of the type, amount and effects of respiratory hazards.
2. Description of the selected respirator.
3. The intended use and limitation of the respirators.
4. Proper wearing, adjustment and fit testing.
5. Cleaning and storage methods.
6. Inspection and maintenance procedures.
7. Dealing with emergency situations or malfunction of the respirators.

This training should be repeated as often as necessary, at least annually, to ensure that employees remain familiar with the proper use of respirators. A record of this training must be kept on file

### 2.1 SAFE USE OF RESPIRATORS

The use of respirators in the workplace serves the purpose of protecting workers from identified hazards, such as controlled substances or Silica dust. In order for workers to have the maximum degree of protection the following points will be followed while using air purifying respirators;

1. Workers must be clean-shaven where the respirator faces piece seals to the skin.
2. Persons who are required to wear a respirator must not wear contact lenses.
3. Do not use any covering that passes between the sealing surface of a respirator and the worker's face.
4. Other required personal protective devices and/or equipment must not interfere with the seal between the face piece and the face of the worker.
5. Only authorized persons may perform respirator repair work.
6. When wearing a respirator, employees experiencing any of the following will immediately leave the contaminated area and inform your supervisor:
  - Nausea
  - Dizziness
  - Eye irritation
  - Unusual odour or taste
  - Excessive fatigue
  - Difficulty breathing
  - Irritation not normally associated with wearing a respirator (i.e. burning)
7. Respirators will be inspected before and after every use, check straps, valves, cartridges, as well as general cleanliness.
8. Prior to exposure to a respiratory hazard (e.g. Silica dust) users will perform a positive and negative pressure fit check to ensure a positive seal is obtained between the mask and the users face.
9. A fit test must be performed on an annual basis.
10. High contaminant levels and other factors such as high humidity can affect the filter and/or cartridge on the respirator. Ensure filter life is monitored and filters are changed as required.
11. The cartridge should be changed when the user starts to feel a resistance to breathing when using a HEPA (or anything with a pre-filter). An organic cartridge should be changed when the user begins to smell the substance they are working with.
12. Refer to the manufacturer's respirator instruction manual for further information.
13. Any employees who cannot achieve a proper fit are not permitted to perform tasks where respirators are required.



### 2.1.1 DONNING & ADJUSTING



Don a half mask respirator as follows;

1. Remove your eyewear and PPE (if worn)
2. Hold the mask over your nose and chin. Position the head strap above your ears and over the crown of your head, and adjust it.
3. Position the neck strap below your ears and around your neck.
4. Fasten the clasp of the neck strap.
5. Adjust the neck strap.
6. To prevent contaminated air from leaking into your respirator, adjust the straps before you enter the work area where there is a breathing hazard.
  - The respirator must seal with your face but be comfortable. It should not dig into your face or leave red marks on your skin.
7. If you need to adjust your respirator, you should leave the contaminated work area, as adjusting the straps can allow contaminated air to enter the mask.
  - Each time you adjust the straps, conduct a positive or negative seal check as detailed in section 2.1.2.



Don a full face mask respirator as follows;

1. Adjust all the face piece head straps to their full outward position.
2. Put on the face piece by grasping the head strap harness and with your thumbs through the straps, spread outward over your head.
3. Push the harness top up your forehead, brushing your hair upward from the seal area. Continue up and over your head until the harness is centered at the rear of your head, and your chin fits into the chin cup.
4. Make sure the face piece is centered on your face and pull both lower head straps at the same time toward the rear.
5. Tighten the two upper head straps.
6. For the 7600 series, tighten the forehead head strap (top middle).
7. Conduct a positive or negative seal check as detailed in section 2.1.2.

### 2.1.2 USER FIT TESTS

User fit tests are done prior to exposure to exposure to a contaminated environment and consist of positive and negative seal tests.

The purpose of the positive test is to ensure that the seal between the workers face and the body of the respirator is not broken when exhaling normally. The test is performed after the mask has been donned and adjusted for fit by the worker (section 2.1.1).

The worker places their hand over the exhalation valve on the front of the respirator and breaths out normally. There should be a delay in the breaking of the seal between the workers face and respirator. If there is not delay then the mask has not be seated or adjusted adequately to the workers face. Adjust the mask and do the test again.

The purpose of the negative test is to ensure that the seal between the workers face and the body of the respirator is not broken when inhaling normally. Once the worker has donned and adjusted their respirator they cover both filters and breathe in normally. The body of the respirator should compress onto the face. If this does not happen the respirator is not seated or adjusted adequately. Adjust the mask and do the test again.

Under no circumstances is the worker to enter a breathing hazard area until they have passed both the positive and negative fit test.





If the user cannot pass either test successfully this may indicate that the mask is damaged, filters or cartridges are not seated correctly or that the workers face geometry has changed (i.e. they have lost or gained weight, they are not clean shaven, they have a face injury...). Whatever the cause for the failure, it must be remedied before the worker can be exposed to the hazardous environment.

### 2.2 EYE GLASSES

If a worker wears corrective lenses and is required to use a full face mask respirator, the employer must provide him/her with specialty corrective eyewear compatible with the full face mask they are required to wear.

Alternately, workers may be permitted to wear contact lenses providing the health and safety of the worker is not affected by the use of them.

### 2.3 GETTING A GOOD SEAL

Where your respirator seals with your face, nothing must come between the respirator and your skin. Eyeglass frames, head coverings, beards, sideburns, and stubble must not interfere with the seal.

Workers must be clean-shaven where the respirator seals with the face. Some workers think the clean-shaven rule is too strict. "Does it really matter if there's a bit of stubble on my face?" The answer is yes. It matters a lot. Stubble prevents the mask from forming a good seal with the face.

Stubble may seem small, but it is huge when you compare it with dust, mist, fibres, fume particles, and gas and vapour molecules. Stubble under the respirator seal creates plenty of room for contaminants to enter the mask.

If you have prescription eyeglasses you may need to obtain special frames to use with a full-face piece respirator so that your glasses do not affect the seal. Contact lenses can be worn with a full-face piece if all of the following precautions are taken:

1. The worker does not wear contact lenses when the eyes are irritated or inflamed. If the respirator is necessary for planned work or in the event of an emergency, alternative corrective eyewear that does not interfere with the seal should be used with the respirator.
2. The worker puts on the respirator in an atmosphere that does not cause the eyes to be irritated and that does not cause irritating gases or vapours to be absorbed by the contact lens.
3. We are notified that contact lenses will be worn.

### 2.4 SELECTION OF RESPIRATOR

In most cases a half mask air purifying respirator will provide adequate protection for workers exposed to most environmental dust providing the P-100 filter is fitted and those filters have been maintained (i.e. changed as required).

When workers are exposed to high levels of dust or they are working in areas where there is limited or no natural air flow, a full face mask respirator with appropriate filters is required. For example, cement finishers working in stairwells.

During initial fit testing, several different sized respirators will be available to ensure that workers are issued with properly fitting respirators. The same will occur during the annual fit testing.

### 2.5 SELECTION OF FILTERS AND CARTRIDGES

As a general rule only filters will be required for use in our places of work. The minimum standard for filters will be the P-100. The P indicates that the filter is oil-proof and safe for use in environments where oil will be present.

There may be situations where cartridges may be required in conjunction with filters. This will generally occur if there are contaminants present, such as vehicle exhaust or potentially harmful fumes or vapours from products being used, which cannot be effectively removed by the filter. Waterproofing agents can have the same characteristics.

Write the date that the package the filter or cartridge was opened. Filters and cartridges begin working the moment they are removed from their packaging. Most cartridges and filters also have a



duty period or expiry date. Some cartridges may have an end of life indicator which will show when the cartridge has expired.

### 2.5.1 WARNING PROPERTIES

Adequate warning properties can be assumed when the odour, taste, or irritation effects of the contaminant are detectable and persistent in concentrations at or below the occupational exposure limit. When the odour, taste or irritation threshold of a contaminant is greater than the occupational exposure limit, this contaminant is considered to have poor warning properties.

For respirators fitted with gas and vapour cartridges, the contaminant must have warning properties that will let you know if the cartridge is no longer working. Workers must be able to sense the contaminant (by smell, taste, or breathing irritation) when it starts to penetrate the cartridge.

Cartridges must not be used for contaminants with poor warning properties unless the respirator manufacturer has an end-of-service-life indicator cartridge available.

Cartridges are to be replaced right away if any breakthrough warning signs are experienced.

The use of APRs requires that the respirator be equipped with an **End of Service Life Indicator (ESLI)** certified by NIOSH for the contaminant or if there is no ESLI appropriate for conditions in the workplace, the company shall implement a change schedule based on objective information that ensures that canisters and cartridges are changed before the end of their service life.

## 2.6 FIT TESTING

Before using a respirator for the first time, workers must be trained in the safe use of the respirator. The use of air purifying respirators is straight forward but the following points must be observed;

1. Ensure the mask is placed squarely on the face. If the mask is off-set to one side or the other a proper seal may not be attained.
2. All workers must be clean shaven before wearing a tight fitting air purifying respirator.
3. Breathe normally when wearing the respirator. If breathing becomes difficult you may need to change your filters.
4. When using cartridges if you begin to taste or smell something change your cartridges.
5. When changing your filters or filter/cartridges change both at the same time.
6. If you smell or taste something immediately after entering the hazard area remove yourself and check to ensure your cartridges or filters are attached properly to the mask body. Cross threading is possible.
7. Remove yourself from the hazard area before changing your filters or filter/cartridges.
8. Use the correct filter or cartridge for the hazard.
9. Use the correct filter or cartridge for the mask. North and Surviar cartridges and filters are not compatible.
10. Do not use air purifying respirators in oxygen deficient environments (i.e. below 19.5% oxygen).

Fit testing is generally done on site by a qualified fit tester. Fit testing must not be done by a worker who has not received specific training in the procedures required to ensure an air purifying respirator will protect the worker wearing it.

Generally a qualitative (i.e. quality of fit, absence of any smell or taste during testing) fit test is sufficient to ensure the worker will be protected. Qualitative fit testing will test for a proper seal against the mask and the face through the use of either a vapour and/or a smoke. The general procedure is as follows;

1. User dons either the half or full-face mask and adjusts it so that it is sitting comfortably on their face. The tester will inspect the fit to ensure it looks adequate.
2. The user will do a positive and negative fit test. The positive fit test evaluates the seal of the mask during exhale. The negative fit test evaluates the seal during inhale. Before the



reminder of the test can be conducted the worker must pass these two tests. If the worker cannot obtain an adequate seal either on the positive or negative test, the mask may be too big or too small or there may be other issues such as the mask body may have a leak or the filters or cartridges may not be seated properly.

3. Before being tested, the worker should wear the respirator for 10 minutes. The test is conducted as follows;
  - a. Worker breaths normally
  - b. Worker breaths deeply
  - c. Worker turns head from side to side
  - d. Worker nods head up and down
  - e. Worker is engaged in conversation
4. Throughout the above procedure the tester is applying the testing agent against the area where the respirator meets the skin. Each step of the testing procedure should be done for 30 seconds. If no effects are felt by the worker then the test was successful for that mask and a pass is granted.
5. Each mask that the worker is assigned to wear should be tested in the same manner.

## 2.7 INSPECTION, CLEANING, STORAGE & MAINTENANCE

### 2.7.1 INSPECTION

Your respirator must be in good condition to work properly. Inspect your respirator carefully every time you clean it.

#### **Head straps**

- Look for breaks or tears.
- Stretch the straps to test the elasticity.
- Replace any straps that have knots in them.
- Make sure all fasteners are present and work properly.

#### **Facepiece**

- Look for any warping, and check for dirt, holes, tears, and cracks.
- Check that the rubber or silicone should be flexible, not stiff.

#### **Yoke**

- Some respirators have a plastic or aluminum yoke across the facepiece front to strengthen and support it. Check plastic yokes for cracks that can result from too much bending. Check aluminum yokes for black lines that can indicate weak points.

#### **Inhalation and exhalation valves**

- Make sure there are no missing valves.
- Inspect the valves and valve seats for cracks, tears, dirt, and curling.
- Check that the valves are very flexible and lie flat.
- Make sure that the exhalation valve cover is present.

#### **Cartridge and filter holders**

- If the respirator uses a snap-on mount to hold the cartridges or filters, check that all sealing surfaces are clean.
- If the respirator uses a screw mount, check that the threads are in good condition.
- If the respirator uses gaskets, make sure none are missing.

#### **Cartridges and filters**

- Look for cracks and other damage such as dents and holes.
- Replace filters or cartridges if they are heavily coated with paint or other material.
- Make sure you are using the correct type of filter or cartridge for the hazard.

If an inspection shows that any parts of the respirator are missing, damaged, or not manufacturer-approved, the supervisor must be advised and do not use it.





### 2.7.2 CLEANING

Respirators should be wiped down daily at the end of the worker's shift. This is done using water and a clean, dry cloth or towel. Ensure all visible dust or residue is removed from the inside and outside of the respirator and that the respirator is completely dry, particularly on the inside.

Once per month or more frequently if required, the respirator should be fully disassembled and cleaned in warm water and a mild detergent. Use a brush to reach tight areas.

Ensure all components are cleaned and rinsed well and allowed to dry fully before reassembly. When reassembling the respirator inspect each component before replacing. Pay particular attention to how each component is seated. Workers must ensure that each component is seated properly to ensure adequate protection.

#### **Routine cleaning instructions**

Check the manufacturer's cleaning and sanitizing instructions, or follow these suggestions:

1. Remove the filters or cartridges:
  - The filters or cartridges must not become wet or damp.
  - Wipe the cartridge exterior with a damp cloth.
  - Do not clean the cartridge interior.
  - Replace the filters or cartridges if they are heavily coated with paint or other material.
2. Remove the head straps, gaskets, and valves.
3. Carefully wash the facepiece in warm water. Water that is too hot can warp it.
  - Use a mild soap.
  - Use a soft scrub brush to remove stubborn material.
  - Never use solvents such as turpentine or gasoline.
4. Rinse the facepiece in clean, warm water to remove any soap residue and disinfectant.
5. Dry the facepiece on a clean surface or hang it from a line.
  - Make sure that the facepiece will not become distorted.
  - If you dry it with a cloth, use one that is soft and lint free.
6. Wash valves and any gaskets carefully:
  - Allow them to air dry, making sure the valves dry flat.
  - Replace any curled or damaged valves with new ones.
7. Reassemble your respirator, making sure all pieces are manufacturer-approved parts and are in their correct positions.
8. Reattach the filters or cartridges.

### 2.7.3 STORAGE

To function properly and protect workers, respirators must be clean and in good condition. Too often, respirators are left out to get dirty or damaged at the end of the workday. Proper storage of respirators will protect it from chemicals, strong sunlight, moisture, and extreme heat or cold.

#### **How to store a respirator**

- Place your respirator in a resealable plastic bag. It will also keep the respirator clean and dust free.
  - (i) Keep the resealable bag clean and check that the bag is intact and the bag seal is working.
  - (ii) Replace the bag when necessary.
- Position your respirator so that the facepiece and head straps are not bent or stretched.
- Store your respirator in a safe place such as a cabinet or locker. Do not store it with your tools—they can damage the respirator.

- (iii) If you store your respirator in a vehicle or other location where temperatures may be extreme (for, example, too hot or too cold), open the resealable bag slightly to avoid moisture build-up.

### 3 MEDICAL ASSESSMENT

Some health problems may prevent a worker from using a respirator. If a worker or their supervisor has any doubt or concern about a worker's ability to use a respirator, the worker should be examined by a doctor knowledgeable in occupational health.

The doctor will need information about:

1. The work environment and work conditions, including potential extremes of temperature and humidity
2. The type of work to be done
3. The types and concentrations of contaminants present
4. The type of respirator to be used
5. The duration of use

On the basis of this information, the doctor will advise us only whether a worker can use a respirator. The doctor cannot disclose a worker's personal medical information without their informed consent. Medical conditions that may prevent you from using a respirator include, but are not limited to:

- Claustrophobia
- Problems with breathing during normal work activities
- A history of breathing problems such as asthma, emphysema, bronchitis, or shortness of breath
- High blood pressure or heart disease
- Use of medications with side effects that might affect lung or heart function or cause drowsiness or lowered alertness
- Diabetes
- Seizure disorders
- Facial skin problems
- Physical factors that make it hard to put on or adjust the respirator, such as arthritic or missing fingers or a limited range of motion in the upper body
- Past problems with respirator use

In addition, if a worker has facial injuries or facial scars or if they wear dentures, it could be difficult to fit them with a respirator. If workers have prescription glasses they will need special frames to use with certain types of full-face piece respirators. An impaired or nonexistent sense of smell may prevent workers from detecting when a contaminant is leaking into the face piece. These factors should be taken into account when fitting and using a respirator.

### 4 RECORD KEEPING

Fit testing must be done at least annually, and written records of the results will be kept on site and with the Safety Manager.

### 5 PROGRAM REVIEW

The respirator program will be reviewed as part of the annual review under the OH&S Program and updated as required.





# EXPOSURE CONTROL PLAN – SILICA DUST

- Key Points**
- ☑ Silica dust is present in all aspects of construction
  - ☑ The potential results of overexposure is Silicosis, a disease which has not cure
  - ☑ Exposure limits are 0.025mg/m<sup>3</sup> over an eight hour period

This plan is applicable to any sub-contractor on site whose workers will generate Silica dust as a byproduct of their work activities. This plan is the minimum standard and will be used to evaluate the performance of all sub-contractors subject to the requirements of Part 5.57 of the OHS Regulation.

## 1 POLICY

The purpose of this section is to provide guidance to site superintendents and CSO/First Aid Attendants when assessing the effectiveness of the controls implemented by sub-trades when their scope of work will generate Silica dust.

It is not the company's responsibility to control Silica dust on site; however, it is the company's responsible to ensure that it is controlled and that other trades or the general public are not exposed to the harmful effects of Silica dust while on or near our construction sites.

## 2 HAZARD IDENTIFICATION

### 2.1 OBJECTIVES

Employers have a duty to protect their workers and the general public from silica exposure on construction projects. This duty extends to all personnel working on a worked site that may or may not be directly involved with concrete finishing operations.

For the purposes of this guideline, silica dust refers to crystalline silica in a respirable form.

### 2.2 WHAT IS SILICA?

Silica is the second most common mineral on earth and makes up nearly all of what we call "sand" and "rock." Silica exists in many forms—one of these, "crystalline" silica (including quartz), is the most abundant and poses the greatest concern for human health.

Some common materials that contain silica include:

- Rock and sand
- Topsoil and fill
- Concrete, cement, and mortar
- Masonry, brick, and tile
- Granite, sandstone, and slate
- Asphalt (containing rock and stone)
- Fibrous-cement board containing silica

Silica is so common that many workplace activities that create dust can expose workers to airborne silica. In British Columbia, the Occupational Health and Safety Regulation has established occupational exposure limits (OELs) for five different forms of silica; three of these are amorphous, and two are crystalline (quartz and cristobalite). The form most likely to cause serious problems for worker health is quartz.

### 2.3 SILICA EXPOSURE IN CONSTRUCTION

Silica is a primary component of many common construction materials, and silica-containing dust can be generated during many construction activities. Commonly used construction materials include:



1. Abrasives used for blasting
2. Brick, refractory brick
3. Concrete, concrete block, cement, mortar
4. Granite, sandstone, quartzite, slate
5. Gunitite
6. Mineral deposits
7. Rock and stone
8. Sand, fill dirt, top soil
9. Asphalt containing rock or stone.

Silica is a primary component of many common construction materials, and silica-containing dust can be generated during many construction activities, including:

1. Chipping, jack hammering, and drilling of rock
2. Abrasive blasting (e.g., of concrete structures)
3. Crushing, loading, hauling, and dumping of rock and gravel
4. Sawing, hammering, drilling, grinding, and chipping of concrete or masonry structures
5. Demolition of concrete and masonry structures
6. Sanding drywall
7. Clean-up activities such as dry sweeping or pressurized air blowing of concrete, rock, or sand dust
8. Road construction
9. Hand mixing of concrete
10. Tuck point grinding
11. Cutting brick or tiles
12. Excavation and earth moving of soils with high silica content.

Unprotected workers performing these activities, or working in the vicinity, can be exposed to harmful levels of airborne silica.

## 2.4 HEALTH HAZARDS

Crystalline silica dust can cause a disabling, sometimes fatal disease called silicosis. The fine particles are deposited in the lungs, causing thickening and scarring of the lung tissue. The scar tissue restricts the lungs' ability to extract oxygen from the air. This damage is permanent, but symptoms of the disease may not appear for many years.

A worker may develop any of three types of silicosis, depending on the concentrations of silica dust and the duration of exposure:

- Chronic silicosis—develops after 10 or more years of exposure to crystalline silica at relatively low concentrations
- Accelerated silicosis—develops 5 to 10 years after initial exposure to crystalline silica at high concentrations
- Acute silicosis—develops within a few weeks, or 4 to 5 years, after exposure to very high concentrations of crystalline silica

Initially, workers with silicosis may have no symptoms; however, as the disease progresses, a worker may experience:

- Shortness of breath
- Severe cough
- Weakness

These symptoms can worsen over time and lead to death.

Exposure to silica has also been linked to other diseases, including bronchitis, tuberculosis, and lung cancer.

## 2.5 EXPOSURE LIMITS

Assigned exposure limit (ACGIH (TLV\_TWA)) for crystalline silica (quartz) is 0.025 mg/m<sup>3</sup>. Silica also contains an A2 designation (suspected human carcinogen) as listed by the IARC (International Agency for Research on Cancer).

For designated substances such as crystalline silica, part 5.57 of the OHS Regulation requires the employer to eliminate exposure where possible through methods such as substitution or process changes. If it is not practicable to do so, the employer must implement an Exposure Control Plan to maintain workers' exposure as low as reasonably achievable below the exposure limit.

The Exposure Control Plan (ECP) describes our strategy for minimizing worker exposure to levels as low as reasonably achievable below the exposure limit and includes risk identification, assessment and control information from which the strategy is founded.

### 3 RESPONSIBILITIES

#### 3.1 GENERAL

Due to the significant risk posed by respirable silica, it is imperative that all personnel involved in operations that could potentially create silica dust take specific action to ensure that, as much as possible, a hazard is not created for themselves, their co-workers or the general public.

Care must also be taken to ensure that silica is not introduced into the physical environment, such as storm drains, by using methods of dust control that capture rather than disperse the dust (vacuum instead of blow/sweep/rinse).

#### 3.2 EMPLOYERS

1. Ensuring that the materials (e.g., tools, equipment, personal protective equipment) and other resources (i.e., worker training materials) required to fully implement and maintain this exposure control plan (ECP) are readily available where and when they are required.
2. Ensuring a periodic review of the effectiveness of the ECP, which may require air sampling of worker exposure levels to crystalline silica when there are significant changes in exposure conditions during non-standard work practices?
3. Coordinating the work with the prime contractor and other employers to ensure a safe work environment. This includes notifying all workers on site, either actual or potential, of the presence of crystalline silica on site and the safety requirements required while on site.
4. Ensuring that all required tools, equipment, and personal protective equipment are readily available and used as required by the ECP.
5. Ensuring supervisors and workers are educated and trained to an acceptable level of competency.
6. Maintaining records of training, fit-test results, crew talks, and inspections.
7. Providing a job-specific ECP for each project, which outlines in detail the work methods and practices that will be followed on each site. Considerations will include
  - Availability and delivery of all required tools/equipment
  - Scope and nature of grinding work to be conducted
  - Control methods to be used
  - Level of respiratory protection required
  - Coordination plan

#### 3.3 SUPERVISORS

1. Obtaining a copy of the ECP from the employer, and making it available at the worksite.
2. Selecting and implementing the appropriate control measures.
3. Providing adequate instruction to workers on the hazards of working with silica-containing materials (e.g., concrete) and on the precautions specified in the job-specific plan covering hazards at the location.
4. Ensuring that workers using respirators have been properly fit-tested and that the results are recorded. The fit-test and results recording is generally done by the CSO on site.
5. Selecting, implementing, and documenting the appropriate site-specific control measures.



6. Ensuring that workers are using the proper respirators and have been fit-tested, and that the results are recorded.
7. Directing the work in a manner that ensures the risk to workers is minimized and adequately controlled.
8. Liaising with the prime contractor and other contractors to ensure a safe work environment.

### 3.4 WORKERS

1. Knowing the hazards of silica dust exposure.
2. Using the assigned protective equipment in an effective and safe manner.
3. Setting up the operation in accordance with the site-specific plan.
4. Following established work procedures as directed by the supervisor.
5. Ensuring that they are fit tested and that a fit evaluation is conducted routinely to ensure the mask is still fitting properly as prescribed by the manufacturer.
6. Reporting any unsafe conditions or acts to the supervisor.

## 4 RISK ASSESSMENT, IDENTIFICATION AND CONTROL

### 4.1 RISK IDENTIFICATION AND ASSESSMENT

A key step in developing a silica exposure control plan is to identify the work activities that would put workers at risk of exposure.

- **Work activities that may generate airborne silica dust**—For silica, the route of exposure is through the inhalation of airborne dust. The employer should have a qualified person review the planned work activities to identify those that may generate airborne silica.
- **Identify workers at risk of exposure**—For example, workers who finish concrete would be at greater risk of exposure than plumbers or electrical workers.
- **Amount of exposure**—Some work activities generate more dust than others, and the amount of exposure should be estimated. Published resources are available that provide air sampling data and compare silica dust levels from various construction activities.
- **Duration of exposure**—Workers who grind concrete for a full shift would be at greater risk than workers jack hammering for an hour.

### 4.2 WORKER EXPOSURE MEASUREMENTS

The Occupational Health and Safety Regulation lists an occupational exposure limit (OEL) for respirable crystalline silica (including quartz) of 0.025 milligrams per cubic metre (mg/m<sup>3</sup>). This is a concentration to which nearly all workers could be exposed for eight hours a day, five days a week, without adverse health effects. However, as a suspected carcinogen, crystalline silica is also an ALARA substance, and exposures must be reduced to levels as low as reasonably achievable below the OEL.

Studies show that when construction work tasks involving the drilling, chipping, grinding, cutting, and sawing of concrete and concrete products are conducted without using effective dust controls, workers are exposed to airborne silica concentrations at levels far above the OEL.

If a contractor wishes to use dust control methods for which worker exposure data is not available, the employer may need to conduct air sampling in order to ensure that the control methods are adequate. Remember, workers can be exposed to silica dust during cleanup activities and may expose their families if contaminated clothing is improperly handled.

## 5 EXPOSURE CONTROL MEASURES

Effective engineering controls such as HEPA vacuum attachments and wetting methods, which control silica dust at its source, are readily available in B.C. These controls have been proven to reduce airborne dust

levels significantly when selected and operated in accordance with best practices. Engineering controls alone do not reduce airborne silica to safe levels; so in most cases other control measures, including respiratory protection, will be necessary.

The Occupational Health and Safety Regulation direct employers to use the best control technology available for the task and circumstance. A project may release an unusually high amount of dust, and if there is any doubt of the adequacy of the control measures, air sampling will be conducted in order to ensure that control methods are protective.

Effective control options must be used to eliminate or reduce the risk to workers from the hazards of silica dust exposure. The following hierarchy of control measures must be followed:

- **Elimination/substitution** (e.g., using products with less silica or using work methods that would eliminate the need for surface grinding)
- **Engineering controls** (e.g., water, local exhaust ventilation, enclosure)
- **Administrative controls** (e.g., coordination of tasks with subcontractors, signage)

### 5.1 SELECTING CONTROL MEASURES

Selection of the control measure depends of the specifics of the operation. In some cases LEV is more effective at controlling exposure (i.e. during grinding operations) than wetting methods. In a different application wetting may be more effective (i.e. during cutting operations) than LEV.

Always consider the work to be performed before selecting a control measure. It may be found that, for certain work locations, a particular control measure may not be suitable. In these types of situations the choice of control measure must be selected with the requirement to minimize risk to workers involved in the task with attention given to the surrounding environment as much as is practical.

As much as is possible Silica dust should not be allowed to circulate freely in areas where proper controls have not been implemented. All efforts must be made by the employer to ensure adequate controls are in place prior to work commencing.

### 5.2 ELIMINATION AND SUBSTITUTION

The company recognizes the importance of planning the work in order to minimize the amount of silica dust generated. During the project planning phase, the company will advocate for the use of methods that reduce the need for cutting, grinding, or drilling of concrete surfaces (e.g., formwork planning).

Whenever possible, work will be scheduled when concrete is still wet because much less dust is released at that time.

### 5.3 ENGINEERING CONTROLS

These controls include those technologies or methods which control the dust at its source such as Local Exhaust Ventilation (LEV) and wetting methods. Dust controls are available for many types of dust generating equipment and if used properly, significantly reduce the amount of silica dust released into the workplace. Engineering controls also include general dilution ventilation however for dust generating processes this method is not as effective as LEV and also clean-up becomes problematic.

#### 5.3.1 LOCAL EXHAUST VENTILATION (LEV)

These systems include a shroud (a suction casing that surrounds the wheel/stone), a hose attachment, and a vacuum system. The dust-laden air is collected within the shroud, drawn into the hose attachment, and conveyed the length of the corrugated hose to the vacuum, where it is filtered and discharged.

Many grinders can be purchased with LEV dust control attachments, which are uniquely designed for the equipment and the work activity (e.g., there are specific grinders with LEV manufactured for tuck point grinding). Where a shroud cannot be purchased for a grinder, shrouds can be custom fabricated for grinders of all different sizes. For example, shrouds for corner and 90-degree areas can be fabricated or purchased.





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Silica dust is very abrasive to LEV equipment, which must be regularly inspected for damage and properly maintained.

Below are some general points to consider when using LEV;

1. Whenever possible, use vacuum attachment systems to capture and control the dust at its source. Dust controls are available for many types of dust generating equipment and if used properly, significantly reduce the amount of silica dust released into the workplace.
2. Always use the dust control system and keep it well maintained.
3. Specify the vacuum systems which are approved for use during concrete grinding as well as the exhaust capabilities of this equipment in your firms ECP for concrete grinding
4. Specify the decision logic your firm will use to select dust control measures. Be specific about those circumstances during which your workers will not be able to employ engineering controls
5. Operate grinding wheels at the manufacturers recommended rpm. Operating in excess of this can generate significantly higher airborne dust levels
6. Good housekeeping work practices (for example, use vacuums with high-efficiency particulate air (HEPA) filters, or use wet sweeping).
7. Train workers and supervisors on how to properly use and maintain the equipment.
8. Use industrial purpose vacuum units which are designed to filter the fine silica dust and prevent it from being discharged.

Consider vacuum units equipped with an automatic cleaning feature.

Follow safe work procedures for the cleaning of vacuum filters.

Consider the use of general ventilation in circumstances when local exhaust and wetting methods cannot be used to control the dust

### 5.3.2 WETTING METHODS

Like LEV control, wetting methods will, if used in accordance with accepted work practices, significantly reduce dust levels. Along with LEV, wet methods should be considered a priority control measure. For wetting, consideration should be taken to selecting appropriate equipment to apply the water. For example, the use of water spray controls presents potential safety hazards, which include electrocution, slipping, and potentially hypothermia.

Water spray can effectively reduce exposure levels but is not feasible in many applications (e.g., tuck point grinding and cutting fibrous cement board) because water can result in material discoloration and expansion, building damage, and waste water disposal problems.

Care should be taken to ensure that the silica dust is not spread over an area larger than required. Pressure and flow rate of water are important considerations.

### 5.3.3 BARRIERS, ENCLOSURES AND ABATEMENT SYSTEMS

Barriers are used to isolate the work area from the rest of the project and to prevent entry by unauthorized workers. They do not prevent dust drift and should only be used where natural ventilation is sufficient and dust release is controlled. Barriers will be constructed to notify other workers that concrete grinding work is underway and access to the immediate work zone is restricted to authorized personnel.

Enclosures can contain a dusty atmosphere. They can consist of a partial structure (poly draping or partial plywood hoarding) or a full enclosure equipped with some capacity for maintaining a lower than ambient pressure inside (negative pressure). For partial enclosures, airflow in the enclosure could be created by setting up a ventilating (blower) fan where the dusty air would be discharged to an unoccupied outdoor location. This



option should only be used when dust levels are low or to supplement LEV or wet methods such as in stairwells.

Full enclosures can be fitted with a negative air unit that pumps air from inside the structure. Negative air units draw dusty air through a large HEPA filter panel before the air is discharged outside the enclosure. Another option to create airflow in the enclosure is to set up ventilating (blower) fans where the dusty air can be discharged to an unoccupied outdoor location.

Commercially available, collapsible (pop-up) enclosure structures are readily available in various sizes.

## 5.4 ADMINISTRATIVE CONTROLS

Administrative controls involve activities that are not directly related to the actual physical work, but are important strategies to support the exposure control plan and ensure that all workers are protected from exposure to silica dust. Examples of administrative controls include

- Posting warning signs
- Rescheduling grinding at different times than other work
- Relocating unprotected workers away from dusty work

### 5.4.1 WORK SCHEDULING, PLANNING & COORDINATION

In order for any control measures to be effective, workers must know and understand them and, most importantly, follow them.

Methods to reduce or eliminate worker exposure to silica dust may include rotation of workers to reduce exposure time, specialized training, or using less hazardous procedures.

Work tasks may also be scheduled around the tasks with high exposure potential to reduce the number of workers present.

### 5.4.2 PERSONAL HYGIENE

Personal hygiene practices are essential for protecting workers from gases, vapors, fumes, dusts, and mists. The same is true for respirable crystalline silica and other contaminants during abrasive-blasting operations. Silica can accumulate on the hands, clothing and hair. From there it can be disturbed, re-suspended in air and inhaled. Here are some suggested practices for protecting workers from crystalline silica during these operations:

1. Do not eat, drink, or use tobacco products in dusty areas.
2. Wash your hands and faces before eating, drinking, or smoking outside dusty areas.
3. Park cars where you will not be contaminated with silica and other substances such as lead.
4. Practice good personal hygiene to avoid unnecessary exposure to other work site contaminants such as lead.
5. Shower (if possible) and change into clean clothes before leaving the work site to prevent contamination of cars, homes, and other work areas.

### 5.4.3 SITE CLEAN-UP

Good housekeeping is important wherever silica dust is generated. Containers of silica-containing waste should be kept tightly covered to prevent dust from becoming airborne. Surfaces should be kept clean by washing down with water or vacuuming with a vacuum equipped with a high-efficiency particulate air (HEPA) filter. Where water is being used, it is important to note the transient nature of liquids.

Cleaning with compressed air or dry sweeping should be not permitted. If dry sweeping cannot be avoided, use of Absorbal, or a similar product, will help to limit the degree that the silica dust becomes airborne. The following points should be taken into account regarding site clean-up;





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1. Clean-up after each operation should be done to prevent dust containing silica from spreading.
2. Compressed air or dry sweeping should be avoided when cleaning a work area.
3. Compressed air should not be used for removing dust from clothing.
4. Workers exposed to silica should be provided with or have access to washing facilities equipped with clean water, soap, and individual towels.
5. Silica dust on personal protective clothing and equipment should be removed by damp wiping or HEPA vacuuming
6. Contaminated personal protective clothing and equipment should be handled with care to prevent disturbing the silica dust and the generation of airborne silica dust. Workers should be encouraged to launder work clothing after each shift of dusty work. Contaminated clothing should be bagged for safe transportation prior to leaving the work site.

### **5.4.4 PERSONAL PROTECTIVE EQUIPMENT**

Personal protective equipment includes protective clothing and respirators which have been designated for use in silica hazard areas. The purpose of protective clothing is to prevent the contamination of street clothing and the transport of silica-containing materials from the workplace. Clothing that is contaminated with silica dust should not therefore be worn home without cleaning.

Refer to our respirator program when respirators are required. Some workers may have a medical condition that causes them to have difficulty breathing when wearing a respirator. Such workers should not be assigned to do work that requires a respirator if they have written medical proof of their condition.

## 5.5 SAFE WORK PROCEDURES

The development of Safe Work Procedures (SWP) is critical to the initial and continued safety of a task. SWP are the culmination of the ECP and must be developed in a way to ensure that all hazards and risks are identified and effective control measures are employed. Refer to Section 5.2 for more details.

## 5.6 MEDICAL SURVEILLANCE

Even with appropriate measures to control silica exposure, workers may still be affected. For this reason, periodic medical examinations are important for determining if the control measures in place are effective and if workers are suffering from any of the effects of silica exposure. Refer to Appendix B for details regarding the medical surveillance program.

# 6 SAFE WORK PROCEDURE

## 6.1 GENERAL

Protective measures and procedures must be implemented when conducting operations which generate silica dust. Specific measures and procedures will depend on factors such as the type and scope of work, work location, practicability of using engineering controls, and proximity to occupied work locations.

It is important to assess the work to be conducted in order to determine which control method(s) would be appropriate. This will be done before any work begins and a safe work procedure developed which describes the control methods to be used, lists the tools/equipment/materials required for the job and provides direction to workers. The work procedure should include control measures for each task to be conducted.

## 6.2 DEVELOPMENT OF SAFE WORK PROCEDURES

Supervisors and Foremen whose work activity will generate silica dust must complete a site specific work plan which includes written task specific work procedures which will be followed during the work.

These SWP must have the following information as a minimum;

1. Responsibilities of the employer and employee
2. A plan for how the work will be executed.
3. Tools and Equipment required for the work
4. The step-by-step work procedure for each task including control measures
5. Personal Protective Equipment required

It is recommended that contractors develop a concrete finishing site assessment tool for this purpose. Safe work procedures can be developed for many of the routine tasks performed and customized as required during work planning.

## 6.3 WORK TASKS

Before a control measure is selected analysis of the tasks to be conducted should be done to ensure that the scope of work is defined and understood. The following list is not complete and is only meant to show tasks based on categories;

- Drilling, chipping or sanding
- Clean-up
- Other surfacing type operations which do not fall into one of the above categories

### 6.3.1 ASSESSING EFFECTIVENESS

Fortunately much is known about the effectiveness of the engineering controls which are commercially available for controlling Silica dust. The 'silica control selection chart' in Appendix A was developed using published exposure information related to concrete grinding.

### 6.4 DISPOSAL OF SILICA DUST

Silica dust should be collected at the end of each work day and disposed of in the onsite garbage receptacles which have been designated specifically for Silica dust.

Care should be taken to ensure that the silica dust collected by LEV, wetting or other methods such as abatement systems is handled in a way so as to ensure it is not dispersed during collection.

Containers used to hold waste Silica dust should be of sufficient strength to ensure that they are not easily punctured. It is imperative that the hazard of Silica dust not be passed on to other persons who are likely involved in the disposal process such as dumpster truck drivers or workers in transfer stations or landfills.

## 7 HAZARD ASSESSMENT

Prior to any work commencing where Silica dust will be generated supervisors are required to complete a hazard assessment.

From this hazard assessment supervisors can develop safe work procedures (SWP) for each scope of work which workers must perform. Prior to work commencing a crew talk must be held to review the contents of the SWP.

Supervisors are to complete the appropriate section of the safe work procedure to monitor the effectiveness of selected controls and other associated work procedures to ensure they are effective.

## APPENDIX A

### SILICA CONTROL SELECTION CHART

The table below describes the applicable control measure to be taken for specific tasks relating to concrete finishing.

| Task     |  | Control Methods   | Personal Protective Equipment  | Comments  |
|----------|--|---|--|---|
| Grinding | Concrete interior / exterior walls, ceilings, and other flat surfaces    | <ul style="list-style-type: none"> <li>Barrier or enclosure systems are required to restrict access to the work area.</li> <li>Local exhaust ventilation (LEV) - use concrete grinders with HEPA vacuum attachments.</li> <li>Grinding using wet method of dust control may be an option for specific circumstances. These circumstances must be listed on the site work plan.</li> <li>Personal protective equipment.</li> </ul>   | <ul style="list-style-type: none"> <li>Half-mask air purifying respirator equipped with 100 series HEPA filters.</li> <li>Full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters, when heavy work and poor dilution ventilation in work area.</li> <li>Disposable coveralls are recommended for all grinding work and are required for stairwell and similar work.</li> <li>Eye protection should be worn when using a half-face respirator.</li> </ul> | <ul style="list-style-type: none"> <li>Vacuum systems equipped with HEPA filters are the best control options for flat surface grinding. Ensure they are well designed for this type of work.</li> <li>Very little visible dust should be present in the air.</li> <li>Inspect the LEV unit frequently to ensure proper operation &amp; the filters are clean.</li> <li>Hearing protection should be worn when using powered equipment.</li> <li>When LEV and wet grinding systems cannot be used, dry grinding is permitted, provided a full enclosure system is constructed. Workers should wear full-face respirators and disposable coveralls.</li> </ul> |
| Grinding | Window casements and other working areas with space or other constraints | <ul style="list-style-type: none"> <li>Barrier or enclosure systems are required to restrict access to and contain the work area.</li> <li>Local exhaust ventilation (LEV) should be used when practical and effective.</li> <li>Wetting methods of control can be used to supplement LEV or when LEV methods are not practical or effective.</li> <li>Personal protective equipment.</li> </ul>  | <ul style="list-style-type: none"> <li>Half-face or full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters.</li> <li>Eye protection should be worn when using a half-face respirator.</li> </ul>  | <ul style="list-style-type: none"> <li>Due to space constraints, it may not be possible to use an LEV-equipped grinder.</li> <li>Water flow and rpm of the grinder should be properly adjusted for the material being worked on.</li> <li>Caution—water may produce a slipping hazard.</li> <li>Hearing protection should be worn when using powered equipment.</li> <li>Electric shock hazards need to be assessed and controlled when using wet methods (pneumatic grinders may be another option).</li> </ul>  |
| Grinding | Tuck point grinding  | <ul style="list-style-type: none"> <li>Barrier or enclosure systems are required to restrict access to and contain the work area.</li> <li>Local exhaust ventilation (LEV)—use specially designed tuck point grinders with HEPA vacuum attachments.</li> <li>A specially designed oscillating tool is available for mortar removal. The tool can be purchased with an LEV attachment.</li> <li>When LEV cannot be used, construct an enclosure including a negative air unit for dilution ventilation.</li> <li>Personal protective equipment.</li> </ul> | <ul style="list-style-type: none"> <li>Full-face air purifying respirator equipped with 100 series HEPA filters.</li> <li>For challenging jobs where LEV or wetting control cannot be used, full-facepiece supplied-air respirators operated in pressure-demand mode or full-facepiece supplied air respirators operated in continuous-flow mode will be required.</li> <li>Disposable coveralls should be worn for tuck point grinding work.</li> </ul>   | <ul style="list-style-type: none"> <li>Hearing protection should be worn.</li> </ul>  |

## OCCUPATIONAL HEALTH & SAFETY PROGRAM

| Task     |  | Control Methods   | Personal Protective Equipment  | Comments  |
|----------|--|---|--|---|
| Grinding | Enclosed areas (e.g., stairwells, elevator shafts) | <ul style="list-style-type: none"> <li>Full enclosure systems are required to restrict access to and contain the work area.</li> <li>LEV use concrete grinders with HEPA vacuum attachments.</li> <li>Have dedicated grinders available with corner and flat-end shrouds.</li> <li>Some wet grinding may be acceptable—the approved tasks must be listed on the site work plan.</li> <li>Personal protective equipment.</li> </ul>  | <ul style="list-style-type: none"> <li>Full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters.</li> <li>If effective dilution ventilation within the work area enclosure cannot be established, then full-facepiece supplied-air respirators operated in pressure-demand mode or full-facepiece supplied air respirators operated in continuous-flow mode will be required.</li> <li>Disposable coveralls must be worn</li> <li>Hearing protection should be worn.</li> </ul> | <ul style="list-style-type: none"> <li>LEV attachments for concrete grinders are not effective for certain non-flat grinding surfaces; therefore, full-facepiece supplied-air respirators operated in pressure-demand mode or full-facepiece supplied air respirators operated in continuous-flow mode will be required.</li> <li>HEPA filters should be checked routinely throughout the work shift to ensure they are not clogged with silica dust.</li> </ul>  |
| Grinding | Floor grinding                                     | <ul style="list-style-type: none"> <li>Barrier or enclosure systems are required to restrict access to and contain the work area.</li> <li>Local exhaust ventilation—a variety of specially designed floor grinding systems are available equipped with HEPA filtration. These systems should be used when practical.</li> <li>Wet grinding may be an option, provided acceptable slurry cleanup procedures are documented and followed.</li> <li>Personal protective equipment.</li> </ul> | <ul style="list-style-type: none"> <li>Half-face air purifying respirator equipped with P100 series HEPA filters.</li> <li>Full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters, when working in an enclosed area and visible dust is observed.</li> <li>Disposable coveralls should be considered.</li> <li>Eye protection should be worn when using a half-face respirator.</li> <li>Hearing protection should be considered when using powered equipment.</li> </ul>     | <ul style="list-style-type: none"> <li>Portable shot blaster (floor smoothing) systems equipped with dust controls are available for floor grinding.</li> <li>When large amounts of concrete are to be removed, filter systems should be more substantial (e.g., two vacuums connected in series—one large coarse filter system followed by a finer filter system). This will improve efficiency of the overall unit.</li> <li>Vacuum systems will likely need to be cleaned and inspected frequently.</li> </ul>   |
| Drilling | Walls, floors, and ceilings                        | <ul style="list-style-type: none"> <li>Barriers to restrict access to the work area.</li> <li>Dust capture tool (e.g., a dust cap, LEV, or wetting method).</li> <li>Personal protective equipment.</li> </ul>  | <ul style="list-style-type: none"> <li>Half-mask air purifying respirator equipped with P100 series HEPA filters.</li> <li>Eye protection should be worn when using a half-face respirator.</li> <li>Waterproof equipment where appropriate.</li> <li>Hearing protection should be considered when using powered equipment.</li> </ul>   | <ul style="list-style-type: none"> <li>Hammer drills (variety of sizes) are available. Some units are equipped with local exhaust ventilation attachments (with HEPA filters).</li> <li>A “dust cap” is a dust-capturing device that fits between the drill and the working surface (on the end of the drill). This is useful for overhead ceiling and wall drilling. A few different types are available.</li> <li>When water is used as a dust control, the slipping hazard must be considered and managed.</li> <li>Large concrete drills can be purchased that are equipped with a water spray attachment. Any wet slurry must be cleaned up when the work is completed.</li> </ul> |

## OCCUPATIONAL HEALTH & SAFETY PROGRAM

| Task   |   | Control Methods  | Personal Protective Equipment   | Comments   |
|--|---|--|---|--|
| Chip hammering and jackhammering                       | Walls, floors, and ceilings             | <ul style="list-style-type: none"> <li>Barriers must routinely be established to restrict access to these work areas. Enclosure systems must be constructed when controls are not effective at reducing visible airborne dust.</li> <li>Local exhaust ventilation (see comment) when practical.</li> <li>Wet methods can be used and are often very effective for floor hammering.</li> <li>Personal protective equipment.</li> </ul>  | <ul style="list-style-type: none"> <li>Half-face or full-face air purifying respirator or powered air purifying respirator (PAPR) with P100 series HEPA filters, depending on the effectiveness of the controls.</li> <li>Disposable coveralls should be worn when using full-face respirators. Waterproof PPE (and clothing) required when wetting methods are used.</li> <li>Eye protection should be worn when using a half-face respirator.</li> <li>Hearing protection should be considered when using powered equipment.</li> </ul> | <ul style="list-style-type: none"> <li>LEV could include a negative air unit or HEPA vacuum positioned near the working surface. These controls may be practical when chip hammering walls or other vertical surfaces or locations where water cannot be used.</li> <li>Wet methods could include a portable airless sprayer, air mister, or hose sprayer. Slurry should be cleaned up when the work is completed to avoid secondary dust exposure hazard.</li> <li>Caution—water may produce electrocution and slipping hazards.</li> </ul> |
| Cutting of concrete slab and concrete masonry products |   | <ul style="list-style-type: none"> <li>Barrier or enclosure systems are required to restrict access to and contain the work area.</li> <li>Wetting methods of control can be very effective and should be used as a first choice when saw cutting concrete or concrete products (see comment).</li> <li>LEV systems for concrete saws must be considered as a dust control when wet methods cannot be used.</li> <li>Personal protective equipment.</li> </ul>   | <ul style="list-style-type: none"> <li>Half-face or full-face air purifying respirator with 100 series HEPA filters when cutting dry.</li> <li>Disposable coveralls should be worn when using full-face respirators.</li> <li>Eye protection should be worn when using a half-face respirator.</li> <li>Hearing protection should be considered when using powered equipment.</li> <li>A Half-face or full-face air purifying respirator is required when cutting wet.</li> </ul>   | <ul style="list-style-type: none"> <li>A water flow rate of 2.3 litres per minute (0.5 gallons/minute) is the recommended minimum for saws equipped with wetting controls.</li> <li>Caution—water may produce electrocution and slipping hazards.</li> <li>Slurry cleanup of interior surfaces must be part of the work plan.</li> </ul>   |
| Abrasive blasting of concrete surfaces                 | Exterior and interior concrete surfaces | <ul style="list-style-type: none"> <li>Barrier systems are required when dust can be controlled at the source.</li> <li>Full enclosure system required when source control of dust cannot be established</li> <li>Blasting units that capture the dust (e.g., shot recycle systems) should be used when practical.</li> <li>Blast systems that discharge a wet slurry shot should be used when practical.</li> <li>Personal protective equipment.</li> </ul>   | <ul style="list-style-type: none"> <li>Full-face supplied-air helmet or hood respirator with a neck shroud, operated in continuous-flow mode.</li> <li>Heavy waterproof protective clothing should be worn.</li> <li>Hearing protection should be considered when using powered equipment.</li> </ul>   | <ul style="list-style-type: none"> <li>Caution—water may produce electrocution and slipping hazards.</li> <li>Slurry cleanup of interior surfaces must be part of the work plan.</li> </ul>  |
| Cleanup  | General cleanup                         | <ul style="list-style-type: none"> <li>Barrier to restrict access to and contain the work area.</li> <li>Full enclosure systems can be used in dust-sensitive areas or when unprotected workers cannot be restricted from entering cleanup work areas.</li> <li>Use vacuum (HEPA-equipped) when practical.</li> <li>Wetting of dust prior to sweeping/scooping to be used when practical.</li> <li>Planning for bulk/coarse debris cleanup followed by fine-dust cleanup can reduce the amount of dry sweeping.</li> </ul> | <ul style="list-style-type: none"> <li>Half-face air purifying respirator when vacuum systems or wet sweeping methods are used.</li> <li>Full-face or powered air purifying respirator (PAPR) with P100 series HEPA filters for all other cleanup.</li> <li>Eye protection should be worn when using a half-face respirator.</li> <li>Hearing protection should be considered when using powered equipment.</li> </ul>  | <ul style="list-style-type: none"> <li>Dust-suppressing agents or absorbents are only marginally effective in minimizing airborne dust during sweeping.</li> <li>Safe work procedures must be followed.</li> <li>Rolling a seam of dust suppressant into fine, settled dust is reported to work better than a wide-spread scattering.</li> </ul>   |



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

| Task                         |   | Control Methods  | Personal Protective Equipment  | Comments   |
|------------------------------|---|--|--|--|
|                              |   | <ul style="list-style-type: none"> <li>Dust suppressants should be used if dry sweeping is the only practical option.</li> </ul>   |  |  |
| Cleanup                      | Vacuum bag/filter changing and maintenance of LEV | <ul style="list-style-type: none"> <li>Barrier to restrict access to the work area. Signage marking an area removed from other workers may be adequate.</li> </ul>   | <ul style="list-style-type: none"> <li>Half-face air purifying respirator with P100 series HEPA filters.</li> <li>Eye protection should be worn when using a half-face respirator.</li> </ul>      | <ul style="list-style-type: none"> <li>Safe work procedures must be established and followed.</li> <li>Many vacuums are designed to collect the dust in a bag (rather than loose in the canister) that can be tied and disposed without generating airborne dust. Any new vacuum systems purchased should have this design feature.</li> </ul> |
| Cutting fibrous cement board |   | <ul style="list-style-type: none"> <li>A variety of dust control options are acceptable:               <ul style="list-style-type: none"> <li>Fibre cement shears</li> <li>Score and snap knife</li> <li>Dust-reducing saws (circular and jig) equipped with HEPA vacuum</li> <li>Wetting method if practical</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Half-face air-purifying respirator with N100 series HEPA filters when using saws.</li> <li>N95 dust mask when using fibre cement shears indoors.</li> </ul> | <ul style="list-style-type: none"> <li>A number of equipment manufacturers make saws (and saw blades) specially designed for cutting fibre cement board that can be purchased with HEPA.</li> <li>Carbide score and snap knives have been shown to be an efficient and productive means of cutting fibrous cement board.</li> </ul>            |

### Notes

LEV = local exhaust ventilation PAPR = powered air-purifying respirator

## APPENDIX B

### MEDICAL SURVEILLANCE OF SILICA-EXPOSED WORKERS

The objective of a medical surveillance program is to protect the health of workers by:

- ensuring their fitness for exposure to silica
- evaluating their exposure to silica
- enabling remedial action to be taken when necessary
- providing health education.

### MEDICAL SURVEILLANCE PROGRAM

The medical surveillance program should include the following:

- pre-employment, pre-placement and periodic medical examinations
- clinical tests
- health education
- record keeping.

#### MEDICAL EXAMINATIONS

The initial medical and occupational history should include enquiries about the worker's previous exposure to silica, personal habits (smoking) and history of present or past respiratory disorders (particularly tuberculosis). At the periodic examination, the history shall be updated to include:

1. information on the frequency and duration of exposure to silica since the previous examination; and
2. the occurrence of signs and symptoms of respiratory disease, e.g., dyspnea, cough, sputum, haemoptysis, wheezing and chest pain.

#### PHYSICAL EXAMINATION

Medical surveillance should include a general physical examination, with attention particularly directed to the respiratory system. The frequency of periodic examinations will depend on the intensity and length of exposure to silica and should be decided by the examining physician. It need not be the same for all workers but should not be less than once every two years.

#### CLINICAL TESTS

X-rays and pulmonary function tests should be taken to assess a worker's fitness for continued exposure to silica. To avoid unnecessary x-rays at a pre-placement medical examination, the examining physician should, where practicable, obtain the medical status from another facility if the worker has been previously examined in the past year. Radiographs should be closely examined for early signs of silicosis or other chest disease.

When exposure is discontinued, the frequency of X-rays and the period of surveillance will depend on the intensity and duration of exposure and the findings in previous X-rays. The examining physician shall determine the duration and frequency of follow-up.

#### PULMONARY FUNCTION TESTS

Pulmonary function tests should be taken in conjunction with the chest X-rays. Calibration of the instruments should meet current standards. Tests should include FEV1, FVC, FEV1/FVC per cent and a mid-flow rate such as FEF 25-75 per cent. All relevant data should be corrected to body temperature and pressure (BTPS).

#### ACTION LEVELS

An assessment of a worker's fitness for work should be based on both the clinical examination and clinical test results. For this reason, no specific action levels are stated for the latter. If silicosis is confirmed, the physician should then determine whether the worker is fit, fit with limitations or unfit for further exposure. A worker should not be removed from silica exposure before consultation with WorkSafeBC. To qualify for compensation or rehabilitation further assessment by WorkSafeBC will be necessary.



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

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### TRAINING

Training is an important component in preventing worker exposure to silica. Each firm has an obligation to designate a person or persons who are responsible for conducting training with regards to silica. This person is responsible to ensure all topics relating to silica are covered off in sufficient detail to ensure there is a solid understanding of the hazards, risks and methods used to minimize the risk of silica dust.

Control methods, measures and procedures can only be as effective as the workers carrying them out. It is therefore essential for training to cover the following:

1. WHMIS training,
2. The hazards of silica, including health effects and symptom recognition and reporting,
3. The recognition of typical operations producing silica
4. Engineering controls
5. Personal hygiene
6. Respirator requirements
7. Work measures and procedures
8. The use, care, maintenance, cleaning and disposal of personal respiratory protective equipment
9. Care and consideration of others in and around the area they are working in

Instruction and training should be provided by a competent person. This could be the employer or someone hired by the employer. The health and safety representative or the representative of a joint health and safety committee should be advised about when and where the training and instruction is to be carried out.

# EARLY AND SAFE RETURN TO WORK PROGRAM

*The Return to Work Program is designed to keep morale high on site for all workers, not just the injured worker.*

- Key Points**
- ☑ The Return to Work program is voluntary
  - ☑ There are a variety of different approaches to this program
  - ☑ The Worker, Doctor, WorkSafeBC, and Us are all part of a successful Return to Work Program

## 1 INTRODUCTION

The concept of the early and safe return to work program is to match the injured worker's physical abilities with either a shorter workday, less strenuous work, or both until the injured employee has recuperated sufficiently to resume normal duties. Depending on the circumstances, the worker either continues to be paid by the employer or receives payment from OH&S.

The early and safe return to work program (such as Modified duty and Training on the Job programs) allows for the gradual improvement of the worker's physical condition and return to work. Returning to work for a shorter workday or lighter duty means that the worker is back sooner. This preserves the behavioral pattern of getting up in the morning and going to work. Self-esteem also improves with the return to productivity.

This type of claims cost Management requires pre-planning. The early and safe return to work program may be implemented under the following conditions:

1. The worker's physician is involved and gives consent to the proposed return to work;
2. The worker is not placed at risk of further injury;
3. The duration of the program must be well defined.
4. The work is meaningful and productive.

A properly used early and safe return to work program may assist in boosting employee morale. Employees can and will be encouraged to know that their jobs will not be jeopardized in the case of an unforeseen accident.

Employees should also be informed that our company and other regulatory bodies such as WorkSafeBC encourage the use of the early and safe return to work program for employees who are injured at work. Refusing modified work when it is available may jeopardize an employee's claim and benefits.

## 2 BENEFITS OF THE PROGRAM

The early and safe return to work program, successfully implemented, will return injured workers to productive employment faster and with less chance of recurring injury and will substantially reduce wage loss payments. In the case of permanent disabilities, a successful program will ensure that the worker is assessed for a functional disability pension rather than a loss of earnings pension.

## 3 TRAINING ON THE JOB

There may be available to injured workers who are not able to return to their previous occupation the opportunity to participate in the Job Training (OJT) program.

OJT provides workers with an opportunity to learn and develop new skills in an actual workplace. Prior to commencing OJT, we will negotiate a written statement of the terms and conditions with the regulatory board or WorkSafeBC.

This statement normally includes the intended duration of the training on the job, expectations of hiring the worker at the end, and the level and kind of support to be provided (generally a 50-50 cost split basis for the first few months and a declining basis thereafter plus costs for necessary modification of equipment, facilities, etc.).

The Regulatory body e.g. WorkSafeBC provides relief of claims costs to employers participating in a retraining program sponsored by OH&S's Vocational Rehabilitation Development if a worker is re-injured during the Training on the Job. This relief applies to both re-aggravation of an old injury and where an old injury is a significant factor in the occurrence of the new injury.

#### 4 GRADUAL RETURN TO WORK

Gradual Return to Work programs are usually of short duration, generally no more than 4-6 weeks. The program is generally implemented on an incremental basis, IE: 2 hours per day for the first week, 4 hours the next week, followed by 6 and then 8 hours in the final week. If the employer is not paying wages to the worker, the employer has no responsibility for the payment of statutory deductions (income tax, UIC, CPP). If an accident occurs during such a program it should be regarded by OH&S as a continuation of the original injury.

A Gradual Return to Work program is generally only made available by OH & S Regulatory body to the worker's employer at the time of the injury occurrence. As a therapeutic measure, workers are placed in some form of employment prior to the time when they have recovered fully from the injury or prior to the injury having stabilized into a permanent condition. Since the program is part of the rehabilitation process, wage loss benefits may continue to be paid by WorkSafeBC, or the employer may decide to put the worker back on the payroll to minimize company claims costs, or put the worker on the payroll and be reimbursed by WorkSafeBC where an employer pays full or partial wages, this is deducted from the worker's normal claim entitlement.

The program may be initiated by the worker and/or the employer and arranged by the claim adjudicator.

#### 5 MODIFIED DUTY

Modified Duty programs are valuable in cases where the employer has a suitable and productive job available to an injured worker who has not fully recovered from the injuries and is not yet able to return to the original job, but who is capable of some form of suitable employment. The worker's physician is contacted by the adjudicator to ensure that the proposed work will not harm the claimant or delay recovery.

Modified Duty programs, also referred to as Selective Employment or Light Employment programs may be applied where an injured worker is temporarily totally disabled from carrying out their normal work following a compensable injury but the employer may offer alternative work which the claimant can do and which will reduce or avoid any loss of earnings.

Within reasonable limits, the worker must agree to the return to work.

#### 6 WORK ASSESSMENT

A Work Assessment program is a method of determining or enhancing a worker's capabilities and potential in an actual work environment with an employer. It is designed to assist a worker to return to employment.

Work Assessments may be arranged by OH&S Regulatory body with the accident employer or with a new employer.

It may be implemented on a graduated basis, IE: 2 hours, 4 hours, 6 hours, and 8 hours per day. This is not a cost shared program - it is fully funded by the OH&S Vocational Rehabilitation Services. The worker does not become an employee of the employer for the purposes of the Act.

Again, since the employer is not paying wages to the worker, the employer has no responsibility for the payment of statutory deductions (income tax, UIC or CPP). Any costs arising from new injuries or aggravations that occur during the course of a worker's sponsored work assessment with the Regulatory body are not charged to the participating employer.

#### 7 PROCEDURE

Before we can assign a worker to the return to work program the worker must show a wiliness to actually return to work. Part of this wiliness is demonstrated by the worker seeing their Doctor to complete an assessment Form.

# CLAIMS COST MANAGEMENT PROGRAM

*Managing claims cost will assist in keeping our workers safe*

**Key Points** ☒ We want to minimize claims costs by minimizing accidents

## 1 POLICY

We understand that a disabling injury may happen to any employee and accepts that as an employer, we have both a moral and financial interest in the outcome of a timely return to work process.

Our Claims Cost Management Program is intended to help ensure that injured employees are returned to meaningful employment in a timely manner. We expect the entire workforce to participate in accommodating injured employees as necessary.

The goal of our Claims Cost Management Program is similar to that of WorkSafeBC's Vocational Rehabilitation Department - to "restore the worker's earning capabilities as soon as possible". To achieve this goal, Modified duty, Training on the Job, and other return to work programs may be implemented through consultation with the claims manager, the worker, the worker's physician, and, where necessary, a union representative.

Where modified duties are offered to a worker, we will, in consultation with the OH&S and the worker's physician, ensure that the duties included in the offer are within the capacity of the worker.



# RECORDS AND STATISTICS

## 1 POLICY

Safety records and statistics shall be compiled and retained on site for the project duration. These shall be used to identify and monitor problem areas, review effectiveness of the Safety Program and provide important information to assist in providing a safe work place.

Documentation and records shall be kept in an orderly fashion, which will provide quick and easy access to workers and an officer of any regulatory body upon request.

The following documents must be kept on file (retention period);

1. Site safety inspections (project duration + 2 years)
2. Investigations of accidents and medical aid injuries (10 years)
3. Site safety meeting minutes (project duration + 2 years)
4. Forms 7 when applicable to own workers (20 years)
5. Subcontractors tool box safety meetings (project duration + 2 years)
6. Fit testing for workers (length of employment + 2 years)
7. First Aid treatment record book (5 years after last entry)
8. OH&S inspection reports (10 years)
9. Notice of Projects (5 years)
10. Assurance in writing (30M33) as supplied by BC Hydro (project duration + 2 years)
11. Worker orientation forms (length of employment + 2 years)
12. Safe work procedure training as per worker (project duration + 2 years)
13. Site disciplinary action forms (length of employment + 2 years)
14. Fall protection plans (project duration + 2 years)/Rescue procedures (project duration + 2 years)

## 2 INJURY STATISTICS

An Accident Statistics Sheet is completed monthly to identify trends and unusual conditions. We will be able to make changes to ensure the highest safety on the job sites is maintained.

To monitor the Program's performance, it is necessary to maintain monthly Frequency and Severity statistics and the year-to-date accident statistics. The Disabling Injuries Frequency Rate and the Severity Rate are calculated according to the American Standard Z16.1:

Frequency Rate: 
$$\frac{\text{number of disabling injuries} \times 1,000,000}{\text{employee hours of exposure}}$$

Severity Rate: 
$$\frac{\text{total number of WorkSafeBC days charged} \times 1,000,000}{\text{employee hours of exposure}}$$

A third measure is the Severity of the Disabling Injuries. The Disabling Injuries Frequency Rate and the Severity Rate statistics are useful in monitoring our Program performance both in inter-company statistics, in comparison to companies in similar industries, and the entire industry. This is the average days charged per disabling injury and is calculated in one of two ways:

$$\frac{\text{Total days charged}}{\text{Total of disabling injuries}}$$
 Or  

$$\text{Severity rate} \times \text{Frequency rate}$$

# SAFE WORK PROCEDURES

*Safe Work Procedures are required on site and outline how to work safely.*

## 1 POLICY

It is our policy that written and practical instructions will be developed and maintained, on an ongoing basis, to eliminate or control the dangers likely to be encountered by our workers in the performance of their duties.

All workers and subcontractors are charged with the responsibility of following these written and practical instructions. Site Supervisors will be held accountable for monitoring the work place to ensure that compliance is obtained.

Generally, compliance will be obtained by mutual cooperation and by education of Site Supervisors, and the workers in the "WHYS" of our safety rules and procedures.

## 2 TYPES OF SUPPLEMENTARY INSTRUCTION

Supplementary instructions are expressed as Rules (general and specific) and procedures (general and specific). Supplementary instructions are developed from input supplied by workers, the OH&S Committees, Supervisors, Superintendents, and others.

These instructions will generally be in written form and may add to or override SWP or rules which are already in place. For example there may be a need to incorporate a safety net at some part of the building if there is a higher than normal risk of falling material, particularly if the work being done is outside of the building envelope. The use of the safety net would be outlined in a SWP.

## 3 JOB PROCEDURES

To ensure an accident free environment, it is essential that a worker know and recognize the various aspects of his/her job that are critical to safe job performance. Accordingly, Job Safety Procedures have been and will be developed and maintained as part of our Occupational Health and Safety Program.

These procedures shall be reviewed as part of our annual review of the Occupational Health and Safety Program, or more often as required by changes in equipment, tools or work processes.

Because of the diversity and complexity of the construction industry, a program of General Job Procedures, as well as Specific Job Procedures will be developed in order to provide both the general requirements of the work force and the specific requirements of the projects.

### 3.1 GENERAL JOB PROCEDURES

Refer to the Safe Work Procedures section for specific procedures that you need for the job.

These safe work procedures are to be used for orientations and any additional training when required. The worker and the person giving the training are to fill out the areas at the end of the procedure and copies are to be given to the worker(s) supervisor for records and a copy is to be kept in the site trailer with the safety officer.

Any additional safe work procedures, which may be developed and which are not included in this revised program should be added.

### 3.2 SPECIFIC JOB PROCEDURES

These SWP are site specific and take into account the unique aspects of each project. One example of this type of procedure is the use of fly tables. Site specific fly table procedures would detail the flying sequence of the tables, how many tables there are, the direction they will be flown and what engineering drawing refers to the tables. These procedures are developed prior to the work that will commence on site.

## SAFE WORK PROCEDURES

### List of Safe Work Procedures

|    |  |    |   |
|----|--|----|---|
| 1  | Barricades, Flagging Tape & Signage                | 16 | Ladders CRITICAL                                  |
| 2  | Danger Tape  | 17 | Lighting  |
| 3  | Electrical Cords, Plugs and Temporary Distribution | 18 | Loading and Unloading Vehicles                    |
| 4  | Elevating Work Platforms CRITICAL                  | 19 | Power Equipment                                   |
| 5  | Emergency Procedures                               | 20 | Respirators CRITICAL                              |
| 6  | Fall Protection Requirements CRITICAL              | 21 | Scaffolding CRITICAL                              |
| 7  | Falling Objects CRITICAL                           | 22 | Silica Disposal                                   |
| 8  | Fire Protection & Prevention                       | 23 | Small Power Tools                                 |
| 9  | First Aid Procedure                                | 24 | Tools   |
| 10 | Forklift / Telehandler                             | 25 | Traffic Control                                   |
| 11 | Grinding   | 26 | WHMIS   |
| 12 | Guardrails CRITICAL                                | 27 | Working with Tools – Cut Off Saw                  |
| 13 | Hand Tools (Non-powered)                           | 28 | Working with Tools – Saws CRITICAL                |
| 14 | Heavy Equipment (Working around)                   | 29 | Working with Tools – Wet Dry Masonry Saw CRITICAL |
| 15 | Housekeeping                                       |    |   |

### **BARRICADES, FLAGGING TAPE & SIGNAGE COMPANY SAFETY POLICY**

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### **EMPLOYER RESPONSIBILITIES**

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### **EMPLOYEE RESPONSIBILITIES**

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### **SAFETY EQUIPMENT REQUIRED**

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.
6. Check with your supervisor for additional PPE requirements.

### **TRAINING**

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### **SAFE WORK PROCEDURE**

#### **PRELIMINARY ACTIVITIES**

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.



### PROCEDURES FOR WORKING SAFELY

- a. Install barricades wherever a hazard to another worker or other person exists.
- b. Barricades can be provided by means of:
  - i. Flagging, cones or delineators
  - ii. Barrier tapes (i.e. Red "Danger - Do Not Enter" tape or Yellow "Caution" tape).
  - iii. Identified wooden or metal gates etc.
- c. Flagging tape is to be used as follows:
  - i. Danger tape must be used when the area to which the tape provides protection poses imminent danger.
  - ii. No one is to enter into any area cordoned off with Danger Tape.
  - iii. Danger tape is to be removed when scope of work is completed.
  - iv. Warning tape is to be used to control access to an area. If there is imminent danger to a person entering an area then Danger Tape must be used.
  - v. Danger or warning tape is only to be removed by the person who installed it and only when the hazard to which the tape provides protection has been controlled or removed.
- d. Signs are required when there are processes or substances being used or created which required specific types of PPE in order to protect workers from those hazards.

### DANGER TAPE

#### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

#### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

#### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

#### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

#### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.



## **SAFE WORK PROCEDURE**

### **3.3 PRELIMINARY ACTIVITIES**

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work. Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

### **3.4 PROCEDURES FOR WORKING SAFELY**

1. Danger tape must be used when required.
2. No one is to enter into any area cordoned off with Danger Tape.
3. Danger tape is to be removed when scope of work is completed.

## **ELECTRICAL CORDS, PLUGS & TEMPORARY DISTRIBUTION COMPANY SAFETY POLICY**

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

## **EMPLOYER RESPONSIBILITIES**

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

## **EMPLOYEE RESPONSIBILITIES**

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

## **SAFETY EQUIPMENT REQUIRED**

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

**Additional PPE may be required in the form of;**

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

1. Temporary distribution panels must be installed by qualified electricians and in compliance with the "Electrical Energy Inspections Act" of BC and the electrical code.
2. Doors and covers of electrical equipment shall be kept closed while the equipment is energized.
3. Ensure that circuit breakers and plug-ins are numbered to correspond to each other (i.e. circuit breaker 1, plug 1, circuit breaker 2, plug 2, etc.)
4. Electrical cords and appliances shall be CSA approved and shall be maintained in good order.
5. Open front plugs should be replaced with dead front plugs whenever possible.
6. Only qualified electricians shall repair temporary panels or install any hard wired electric circuits to panels.
7. Do not overload a circuit by plugging several power cords in one outlet.
8. Do not use light duty cords for any heavy load applications.
9. Inspect power cords and electrical fittings for damage prior to each use. Damaged power cords shall be removed from service and repaired or replaced.
10. Always ensure that all three prongs on a grounded power cord are in place. Do not use a power cord where the ground prong has been removed.
11. Always keep power cords away from tools during use.
12. Suspend power cords over walkways or working areas to eliminate tripping hazards.
13. Do not place unprotected power cords where they might be run over by vehicles or equipment on site. Always protect the cord by running it through electrical conduit or placing them between planks.
14. Do not tie knots in power cords. Knots can cause short circuits and electric shocks. Always loop the cords or use a twist lock plug.
15. Always ensure that electrical panel covers are in place and are not damaged.
16. Always store electric cords in a clean dry area off the ground
17. Electrical cords shall be cleaned and inspected for damage before being placed in storage.

**Refer to the section on Electrical Safety in our OH&S Program for details on the Assured Grounding Program.**

## ELEVATING WORK PLATFORMS

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### **SAFE WORK PROCEDURE**

#### **PRELIMINARY ACTIVITIES**

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### **PROCEDURES FOR WORKING SAFELY**

1. All platforms must be engineered and the applicable drawings must be on site when the platform is being used.
2. Workers must not exceed the loading indicated in the drawings for the platform. The load capacity of the platform must be indicated on the platform.
3. All operators shall be trained in the safe operation of these devices and understand their limitations.
4. If the work platform is attached to a tower crane there must be a means of communication between the worker(s) in the platform and the crane operator.
5. Where the movement of an aerial work platform is controlled from an operation stationed at the base of the machine, the operator shall not leave the controls while workers are on the platform and shall respond only to signals from a designated person on the platform.
6. People on elevating work platforms shall wear fall arrest equipment secured to suitable and substantial anchorage points.
7. Anchor points must be above the hook when platforms are attached to cranes.
8. Workers shall not be transported on aerial work platforms. Workers may remain on platforms while minor adjusting movements are made.

### **EMERGENCY PROCEDURES**

#### **COMPANY SAFETY POLICY**

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

#### **EMPLOYER RESPONSIBILITIES**

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a toolbox meeting on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

The General Contractor will have an emergency procedure in place that all workers are required to comply with;

1. A description of potential emergencies.
2. Methods of reporting the emergencies and alarm signal system.
3. A construction site safety plan of the workplace that shows evacuation routes and emergency must point, as well as the location of emergency equipment, first aid station, fire suppression equipment and warning alarms.
4. A list of personnel and their responsibilities in emergency situations and their contact information.
5. A list of procedures for shut down of the work site.
6. A description of the system of communications, both internal (i.e. alarms) and external.
7. A list of phone numbers for support services. This list should be posted at all telephones.
8. An evacuation, head count and rescue plan.
9. A plan for accident investigation and correction of hazards.
10. A formulated diplomatic procedure for notification of next of kin to be carried out by upper management, Police Department or other authorized agencies.
11. A radio must be made available to the First Aid Attendant for the purpose of communication in the event of any emergency.

### FALL PROTECTION REQUIREMENTS COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a toolbox meeting on this SWP.



## SAFE WORK PROCEDURE

### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work. Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

### PROCEDURES FOR WORKING SAFELY

#### PREPARATION

1. Employees working at elevations greater than 10 feet. (3m), where there is a risk of injury from falls, must use fall protection measures. Fall protection measures include, but are not limited to

- installing wall, floors, railings and standard guardrail systems
- using personal fall restraint or fall arrest equipment

Fall restraint equipment prevents a worker from falling to a lower level by restricting the worker's movement. Fall arrest equipment limits a worker's fall to a maximum of 4 feet. (1.2m), using a full body harness.

2. Prior to the start of any project, a review of the fall protection needs for the specific project shall be undertaken. A site specific fall protection plan shall be developed and implemented and ongoing training and review of the program shall take place as the project proceeds.

3. The review shall include the identification of fall hazards, decisions on types and methods of fall protection to be used, procedures for assembly, maintenance, inspection and disassembly of equipment as well as the training requirements necessary for the fall protection program.

4. Training in the fall protection plan shall include job orientation, instruction on fall restraint and fall arrest as well as fitting of personal protective equipment.

5. Ensure that there are adequate attachment points available at each location where fall protection systems are used.

6. This procedure should be used in conjunction with the following related procedures;

- i. Floor openings
- ii. Guardrails
- iii. Ladders
- iv. Overhead hazards
- v. Scaffolding

#### HANDLING AND USE/CONSTRUCTION PROCEDURE

1. When working in fall hazard areas, jobsite specific fall protection procedures must be used. Contact your Supervisor for information and appropriate equipment for your work area.

2. Always wear appropriate personal protective equipment when passing through an active overhead work area.

3. Always use measures to control or restrict access when working below or around others working overhead.

4. Ensure that fall protection equipment is not used by workers until they have been adequately instructed in the safe use and handling of the equipment and have demonstrated that they understand the instruction.

#### FALL RESTRAINT

1. Fall restraint is rigged to allow the movement of workers only as far as the sides and edge of the working area. As part of the rigging, anchorage points conforming to the intended load (800 lb) criteria must be provided for each fall restraint device in use.

2. The plan involving the use of fall restraint systems shall include

- Holding a pre job meeting to address and discuss the fall protection requirements including any training or review.



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- Working within the confines of a standard guard-rail system.
- Wearing approved fall restraint equipment which is attached to securely rigged restraint lines. This would include checking restraint line length to ensure limits of approach.
- Confirming that all fall restraint devices are compatible.
- Inspecting all restraint components before each use to ensure no excessive wear, no damage or other deterioration. Always remove defective components from use and mark them as such to prevent others from using them.
- Tying of restraint lines. These are to be tied independently of other lines and to an approved anchorage point only.
- Fall Arrest
- Workers exposed to a free fall distance of 10 feet (3 meters) or more (without restraint) are required to wear fall arresting equipment including a full body harness.
- The plan involving the use of fall arrest systems shall include;
  - Holding a pre-job meeting to address and discuss the fall protection requirements including any training or review.
  - Inspecting all components before each use to ensure no excessive wear, no damage or other deterioration. Always remove defective components from use and mark them as such to prevent others from using them.
  - Securing of full body harness system to approved anchorage points. Engineered Anchorage points must be capable of supporting 5000 lbs (244kg).
  - Ensuring that safety lines are rigged in such a manner as to limit the free fall distance to 4 feet (1.2m). Ensuring that safety lines are protected from cuts, wear and abrasion.
  - Ensuring that only one worker may be attached to any one vertical safety line. Ensuring that the attachment involves the use of locking snap hooks to "D" rings only.
  - Ensuring the removal from service, until checked and re-certified for use of body harness components which have been involved in a fall.

### CONTROL ZONES

1. Another method of fall protection is the institution of a control zone in the work area. Control zones are used for leading edge or fixed edge work.
2. The plan involving a control zone system shall include
  - A minimum distance from the edge of 6 feet (1.8 meters) shall be maintained to protect workers not wearing fall restraint or fall arrest equipment.
  - All workers working between the 6 feet distance and the edge must use fall restraint or fall arrest equipment attached to engineered attachment points.
  - Warning lines or barriers must be installed to separate the control zone from the edge of the building. These lines are generally made of wire, rope, or chain adequately supported on stanchions. Warning lines must be raised off the work surface to maintain a height of 40 – 45 in. (102 – 114cm) above surface.
  - All warning lines must be clearly marked with high-visibility materials at least every 6 feet (1.8m) along their length.
  - Warning lines must be capable of resisting, without tipping over, a force of at least 16 lb. (7.2kg) applied horizontally.
  - Swing factors must not exceed 22 degrees.
  - Control zones shall be inspected at the beginning of each work shift to ensure the integrity of the control zone and that no damage or disruption of the warning line system has taken place.

### CLEANUP AND STORAGE

1. All fall protection equipment should be stored in a dry area to prevent deterioration of the equipment.
2. Always inspect fall protection equipment thoroughly prior to placing in storage. Remove any damaged equipment from service and have it repaired and re certified prior to future use.

## FALLING OBJECTS

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

1. The following PPE is required by all workers while working on site;
2. CSA approved safety boots. Boots must be in good repair.
3. CSA approved hard hat. Hard hat must be in good repair with no modifications.
4. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
  2. Rubber gloves.
  3. Hearing protection.
  4. Eye protection.
  5. Other PPE called for in the applicable MSDS.
- Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a toolbox meeting on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

### PROCEDURES FOR WORKING SAFELY

1. Ensure that all top-rails, mid-rails and as required, toe boards are in place as required.
2. Always pre plan items such as guard rail placement and replacement as well as site cleanup. This will help to eliminate the confusion often surrounding these issues and greatly reduce the possibility of accidents from falling objects.
3. Ensure that all entrances to the work site, where workers are required to work or travel under overhead hazards, are adequately covered.
4. Ensure that all workers on the job are aware of overhead hazards on the site.
5. Ensure that a procedure is in place regarding the movement of material over areas where workers are situated and that the procedure includes the audible warning of workers that a load is moving overhead in proximity to them.
6. Ensure that site inspection procedure includes the review of all guardrails, overhead movement of materials as well as cleanup and housekeeping with regards to falling objects.
7. Whenever workers move around the work site they shall become familiar with the overhead hazards and the risk of falling objects. Workers shall also be made aware of any movement of materials overhead in proximity to their work area.
8. Always ensure that guardrails, including toe boards, are in place when working in elevated areas.
9. If there is a need to temporarily remove guardrails and/or toe boards on the work site, ensure that they are replaced as soon as the need for their removal is completed.
10. Never leave loose materials on scaffolds, swing stages or any elevated work area. Always ensure that elevated work areas have adequate guardrails and toe boards when required.
11. Whenever you are required to work at or near the edge of an unprotected elevated work area, always ensure that you wear proper fall protection. You can also become a falling object on the work site if the proper precautions are not taken.

## **FIRE PROTECTION & PREVENTION**

### **COMPANY SAFETY POLICY**

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### **EMPLOYER RESPONSIBILITIES**

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### **EMPLOYEE RESPONSIBILITIES**

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### **SAFETY EQUIPMENT REQUIRED**

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### **TRAINING**

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a toolbox meeting on this SWP.

### **SAFE WORK PROCEDURE**

#### **PRELIMINARY ACTIVITIES**

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### **PROCEDURES FOR WORKING SAFELY**

Our company believes that the best way to fight fires is to prevent them. Procedures for fire prevention include:

1. Workers are responsible for doing everything they can to prevent a fire.
2. Smoking is only permitted in designated smoking areas.
3. All sub-contractors are to have their own firefighting equipment on site.
4. All lunchroom and equipment trailers are to be equipped with a fire extinguisher.
5. There must be one fire extinguisher in close proximity of portable equipment, including welders, oxy-acetylene torches and open flame heaters.
6. Workers must know the locations and types of fire extinguishers in their work area. There are four general classes of fires and each requires a certain type of extinguishing agent. Portable fire extinguishers are labeled to indicate the class of fire they should be used on. Be sure to ensure you have the right extinguisher before starting work.
7. If a fire cannot be put out with hand held fire extinguishers, then sound an alarm and evacuation procedures must be implemented.
8. The worker who first reported the fire must inform the immediate Supervisor of the circumstances in regards to the fire.
9. Fire equipment must always be kept accessible and in working condition. Do not tamper with fire protection equipment, as it is a serious offence.
10. Aisles, passageways, doorways, and stairways must never be obstructed.
11. Ensure all fire extinguishers are clearly marked as to current inspection dates and most recent pressure tests.



## FIRST AID PROCEDURES

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
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3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

## TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

## SAFE WORK PROCEDURE

### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work. Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

### PROCEDURES FOR WORKING SAFELY

1. First aid procedures must comply with the WorkSafeBC Regulation.
2. A first aid kit must be available at or near the work area while workers are present on site. First aid kits must conform to the requirements of the WorkSafeBC Regulation.
3. After Hours Work: any Supervisors or workers wanting to work outside the projects regular work hours must comply with local, WorkSafeBC and First Aid Regulations.
4. The following precautions should be taken with regards to Blood and Bodily Fluid:
  - a. Rubber or latex gloves must be worn when an employee may come into contact with the following:
    - Blood
    - Open sores or lesions
    - Urine or Feces
    - Other bodily fluids
    - Cloth or equipment soiled with bodily fluids
  - b. Hands must be washed immediately and thoroughly after contact with a patient, equipment or other surface soiled with bodily fluids.
  - c. Equipment, instruments, stretchers, floors and any other surface that becomes contaminated with blood or bodily fluids must be washed thoroughly with a disinfectant and warm water.
  - d. Contaminated or soiled linen should be handled as little as possible. Gloves must be worn. The linen must be placed in a bag with a WHMIS label displayed on the bag explaining that there is blood or bodily fluid contamination (Bio hazardous and Infectious). Soiled linen must not remain in the first aid room for more than 24 hours. Always wash your hands.
  - e. Construction sites in areas where there is a risk of contact with discarded needles or condoms will be issued plastic sharps containers and metal tongs for disposal use. An orientation on the proper precautions to take surrounding dirty needles or condoms will be conducted.
5. Workers who sustain a job-related injury or illness, regardless how minor, must immediately report it to the First Aid Attendant for treatment and recording, and where practicable, must also report it to their immediate supervisor.
6. An employee who receives medical treatment, or who anticipates receiving medical treatment, for any work related injury or industrial disease must complete a WorkSafeBC form 6A. In addition, should there be a potential of a loss time injury, the injured worker shall be provided with a "Consent to Release of Medical Information" form to give to the physician. These reports must be faxed to the Head Office within 24 hours of the injury.

## OPERATING A FORKLIFT / TELEHANDLER COMPANY SAFETY POLICY

- All forklift operators must be qualified to operate the type of forklift that is on site.
- All loads must be handled in accordance with the height and weight restrictions on the machines load chart.
- No part of any load shall pass over any workers.
- All operators must complete a company/manufacturer approved pre-shift inspection checklist to insure that the equipment is safe to use.
- If any defects are spotted during the pre-use inspection that machine must be tagged out of service until repairs can be made by a certified mechanic.
- All units are to be serviced as per manufacturer's recommendations. A record or log shall be kept of any and all service or repair work done to the machine.
- Operators must complete a JHA which illustrates the expected hazards that may exist on site.
- A forklift left unattended must be immobilized and secured against accidental movement. The forks or bucket or any other attachments should be in the lowered position or be firmly supported.
- The operator will be responsible for the safety of other workers in the vicinity of the operating forklift.
- Loads that may tip or fall must be secured.
- All operators of mobile equipment must use the available seat belt.
- Operators must operate at a safe speed that reflects the conditions.
- A forklift must not be used to support, raise or lower a worker unless the work is carried out in a fork-mounted work platform. Fork-mounted work platforms must comply with the OH&S code, all workers on the platform must be tied off to approved anchors while on the work platform.
- The operator shall be the only person on that forklift. **No Riders.**

## GRINDING

### COMPANY SAFETY POLICY

Management and supervisors will;

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3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of:

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

Where multiple trade activity is scheduled, General Contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete the scope of work requested.

Once the above planning is achieved by the General Contractor, then:

1. Proper eye protection and personal protection equipment must be used.
2. Evaluate the area for hazards and the impact on other workers in the grinding area. Where a worker, other than the grinder, is exposed to concrete dust, the area should be restricted by the use of caution tape.
3. Grinding machines must only be used for what the manufacturers intended them for.
4. Proper work rests and protective equipment must be used.
5. Maintenance and good working order of all components in the grinding process must be maintained.
6. Signage must indicate that cement finishing is in progress and that respiratory protection is required.
7. Barricades must be erected to ensure that unsuspecting or unprotected personnel do not enter into an area where there is active cement finishing in progress.
8. The use of abatement system must be used in areas where vacuums, water or barriers are not adequate.
9. Adequate ventilation must be maintained.
10. Each worker doing concrete grinding is to be assigned a respirator for his sole use.
11. The respirator is to be fitted correctly by the Site Safety Officer. A record of assigned safety equipment is to be kept by the Site Safety Officer
12. Only authorized and trained personnel with an assigned respirator is to perform grinding work.
13. Persons who are required to wear a respirator will not wear contact lenses.
14. The respirator wearer is to perform the two fit tests each time he places the mask over his face.
15. Check wheel guards are in place and properly adjusted.
16. Check grinding wheel is firmly secured.
17. Inspect the grinding wheel before turning on the power. Do not use wheels that are chipped or cracked.
18. Test equipment for proper operation.
19. Work area to be clean, dry, and unobstructed.
20. Provide adequate lighting.
21. Provide mechanical ventilation when using half-mask respirator.
22. Do not operate a grinder with one hand.
23. Stand to one side of the wheel before turning on the power.
24. When grinding use the operating face of the wheel only.
25. Do not use a wheel that vibrates.
26. Do not over reach when operating grinder.
27. Before putting down a grinder the wheel must be stopped.



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28. A grinder is to be put down with the wheel facing up.
29. Disconnect the grinder from the power source when making equipment adjustments or wheel changes.
30. Store grinder and respirator in clean dry area.
31. Clean and sanitize the respirator face piece and clean remaining components of air respirators after each use.
32. Cleanup and disposal of silica dust must be done in a controlled manner ensuring that there is no accidental release of the dust. The following points must be adhered to;
  - All dust from vacuums is to be double bagged
  - Garbage bags containing silica dust will be transported to ground level on their own (i.e. not with other garbage types such as scrap wood which may cause bags to be penetrated)
  - Bags containing silica dust should, as much as is possible, be removed from the site for disposal in separate garbage containers.
  - Emptying of vacuums or cleaning of tools should be, as much as is possible, done in an area which is away from common areas such as lunch rooms or access/egress routes.
  - Under no circumstances is air to be used for clean-up.
  - Dry sweeping should not be done unless used in conjunction with a dust suppressant.
33. All workers who are exposed to fall above 10 feet will use fall protection (arrest or restraint) in accordance with the site specific fall protection plan.

### **FIT TEST**

#### **NEGATIVE PRESSURE SEALING TEST**

Block the inlet tube to prevent the passage of air. Inhale gently, taking care not to distort the face piece, and hold your breath for 10 seconds. If the face piece collapses slightly and no infiltration of air into the face piece is detected, it is considered that the fit of the respirator is satisfactory for the wearer.

#### **POSITIVE PRESSURE SEALING TEST**

Close off outlet valves and exhale gently. The fit is considered adequate if a slight pressure can be built up inside the face piece without detection of any outward leakage of air between the sealing surface and the wearer's face.

### **MAINTENANCE**

Each respirator wearer shall clean and sanitize his respirator face piece and clean remaining components of air respirators after each use. The respirator is to be stored in a clean dry area, sealed in a plastic bag.



## **GUARDRAILS**

### **COMPANY SAFETY POLICY**

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4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### **EMPLOYER RESPONSIBILITIES**

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### **EMPLOYEE RESPONSIBILITIES**

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### **SAFETY EQUIPMENT REQUIRED**

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### DEFINITIONS

*"Guard"* means a protective barrier around an opening in a floor or along the open sides of stairs or a ramp, landing, balcony, mezzanine, raised walkway or any other area to prevent a fall to a lower level, or inadvertent entry into a dangerous area;

*"Guardrail"* means a guard consisting of a top rail 102 cm to 112 cm (40 in to 44 in) above the work surface, and a midrail located approximately midway between the underside of the top rail and the top of the toeboard, if one is provided, or the work surface if no toeboard is provided

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

1. Supervisors are responsible for ensuring that all guardrails are to WorkSafeBC requirements.
2. In cases where it is impractical to use fall prevention devices such as guardrails, FULL fall arrest equipment must be used.
3. Warning signs must be posted at locations where guardrails are not in place to notify all trades that fall arrest is required.
4. Guardrails that have been removed by trades in order to complete any scope of work must be replaced before leaving the area.
5. At work areas in excess of 10 feet (3m) above grade, all workers shall be protected from injury by falling from unguarded portions of the structure. One method of achieving this is by installing proper guardrails.
6. Guardrails are also required on all fixed and rolling scaffold systems in excess of 10 feet (3m) in height as well as all stairs and walkways in excess of 4 feet (1.22m) above grade.
7. Areas where guardrails might be used for protection would include;
  - open edges of floors, mezzanines and balconies
  - open edges of scaffolds, platforms, and ramps
  - on a runway that is 122 cm (4 feet) or more above the adjacent floor grade level.
  - if a stairway ends in direct proximity to dangerous traffic or other hazards, to prevent entry onto the dangerous area.
  - openings in floors, roofs, and other working surfaces not otherwise covered or protected
  - locations where a worker may fall into water, operating machinery or hazardous substances.
8. The points in number 7 do not apply;
  - a. To the front edge of a loading dock
  - b. During the construction, demolition, renovations or modification of a work area provided that access is restricted only to the workers involved in the activity and the requirements of fall protection are followed.
9. All guardrail systems must be built in accordance with WorkSafeBC Regulation (8.70 exists as a guideline).
10. Basic requirements for wood guardrails:



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- Wood guardrails shall have a top rail, mid rail and a toe board secured to vertical posts or supports with top rail approximately 42 inches (107cm) above the floor level mid rail approximately 21 inches (53cm) above the floor level a toe board .
  - Approximately 4 inches in height, the bottom of which is not more than ½ inch above the floor supported by vertical posts not more than 8 feet (2.4m) apart.
  - Guardrails shall be constructed in such a manner that they will withstand a minimum force of 125 pounds of force applied laterally and 100 pounds per foot of guardrail when the force is applied vertically.
11. Guardrails should be installed as close to the edge as possible.
  12. Should it be necessary to remove guardrails, the open edge shall be roped off and marked with warning signs. In addition, workers inside the area will wear fall protection and make sure they are tied off.
  13. Missing or removed guardrails shall be replaced immediately.

### SPECIFICATIONS FOR GUARDS AND GUARDRAILS

14. Guards in a building must be appropriate for the use and occupancy of the area
15. Guards in areas not part of a building must meet the applicable criteria of WorkSafeBC
16. Unless otherwise permitted by WorkSafeBC, guardrails must be installed to withstand a load applied horizontally and normal to the span of the rail.
17. Guardrails temporarily installed during the construction, demolition, maintenance or renovation of a work area must be able to withstand a load of 550 N (125 lbs) applied perpendicular to the span in a horizontal or vertically downwards direction at any point on the top rail.
18. If part or all of the top rail or a midrail of a guardrail that is temporarily installed during the construction, demolition, maintenance or renovation of a work area is made of fibre rope, wire rope, chain or other non-rigid material, that part of the guardrail must meet the requirements of *WorkSafeBC Standard - Guardrails using rope or other non-rigid material*, as noted on the following page
19. Guards in a building must be appropriate for the use and occupancy of the area.
20. Guardrails must be installed to withstand a load applied horizontally and normal to the span of the rail, of 550 N (125 lbs) applied at any point along the rail, and a vertical, downward load of 1.5 kN per m (100 lbs per ft) along the top rail, but the horizontal and vertical loads need not be considered to act simultaneously.
21. Guardrails temporarily installed during the construction, demolition, maintenance or renovation of a work area must be able to withstand a load of 550 N (125 lbs.) applied perpendicular to the span in a horizontal or vertically downward direction at any point on the top rail.
22. If part or all of the top rail or a midrail of a guardrail that is temporarily installed during the construction, demolition, maintenance or renovation of a work area is made of fibre rope, wire rope, chain or other non-rigid material, that part of the guardrail must meet the requirements of *WorkSafeBC Standard - Guardrails using rope or other non-rigid materials*.
23. Unless designed by a professional engineer, temporary wooden guardrails on floors and platforms must meet the following criteria:
  - (a) posts must be spaced not more than 2.4 m (8 ft) apart, except a scaffold may have posts spaced not more than 3 m (10 ft) apart;
  - (b) wooden top rails must be at least 38 mm x 89 mm (2 in x 4 in nominal) lumber for a span of up to 2.4 m between supports, and at least 38 mm x 140 mm (2 in x 6 in nominal) lumber for a span of 2.4 m to 3 m between supports;
  - (c) wooden midrails must be 19 mm x 140 mm (1 in x 6 in nominal) or 38 mm x 89 mm (2 in x 4 in nominal) lumber;
  - (d) wooden rails must be secured to the tops or inner sides of their vertical supports;
  - (e) wooden guardrail posts must be at least 38 mm x 89 mm (2 in x 4 in nominal) lumber, and must be installed with the narrow dimension facing the open edge;
  - (f) plastic or wire mesh fencing of adequate strength may be used in place of the midrail, but posts and top rails must comply with the requirements of this section and such fencing must be secured in place.

## HAND TOOLS (NON-POWERED)

### COMPANY SAFETY POLICY

Management and supervisors will;

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3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

1. Always ensure you are using the right tool for the job. Do not substitute or use makeshift tools.
2. Always check tools for damage or wear prior to each use. Watch for loose or broken handles and mushroomed heads.
3. Replace cracked or broken handles on files, hammer, screwdrivers or sledgehammers.
4. Replace worn jaws on wrenches, pipe tools and pliers.
5. Avoid using hand tools with your wrist bent. Always use tools which allow the wrist to remain straight.
6. Always pull on wrenches and pliers. Never push unless you hold the tool with your palm open.
7. Re-dress burred or mushroomed head on striking tools.
8. Carry tools using a heavy belt or apron and hang tools at your sides. Never carry tools in your pockets or hang them behind your back.
9. When using cutting tools, always cut away from yourself.
10. Do not wear bulky gloves when operating hand tools.
11. When using a bar for prying, be sure to stand so that you will maintain your balance should it slip or break.
12. Always think of your co-workers when using picks and axes. Maintain clearance between you and any other person.
13. Keep close track of tools when working at heights. A falling tool can kill someone.
14. Always keep your tools in top condition. A dull blade or blunt point can lead to injury.
15. Be on the lookout for signs of repetitive stress. Early detection may prevent a serious injury.
16. Maintain tools carefully. Keep them clean and dry and store them properly after each use.
17. Always keep cutting tools sharp.
18. Never leave tools on ladders, scaffolds or overhead work areas when they are not in use.
19. Always keep tools being used in overhead work areas, in containers or tied back in order to prevent them from falling.

## HEAVY EQUIPMENT (WORKING AROUND)

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

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2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.



### TRAINING

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### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

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#### PROCEDURES FOR WORKING SAFELY

1. No one is allowed to work within the machines extended radius. Create a barrier by taping off two distinct areas which in turn will clearly separate employees from the operating machinery. Under no circumstances are the machines to encroach this radius outlined by the reflective tape. This barrier will be moved according to the location of the operating machinery. Under no circumstances is any employee allowed to cross the barrier into the excavators radius.
2. Anyone entering the excavation hole must wear a reflective vest along with all other relevant safety gear.
3. Anyone who is planning to enter within the radius of the excavating machinery, must ensure eye contact with the operator and then wait until the operator recognizes and instructs the person to enter within the radius. The person in question must always remain in full view of the operator when leaving so as to ensure the operator it is safe to proceed with their work.
4. Under no circumstances shall any person walk between a dump truck and trailer.

**Always make eye contact with the operator before doing anything around the heavy equipment**

## HOUSEKEEPING

### COMPANY SAFETY POLICY

Management and supervisors will;

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4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

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2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

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Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

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### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

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#### PROCEDURES FOR WORKING SAFELY

1. Workers should have a place for everything and KEEP everything in place.
2. At the end of the day, when the major clean-up takes place, be extra conscientious not to throw tools or relax your thoughts about injury prevention.
3. Work areas must be kept clean and free from obstructions at all times. Tools, loose objects, oil, grease, cords and other materials left lying around are hazards.
4. Work areas must be cleaned immediately after finishing a job or at the end of a shift.
5. Using appropriate MSDS instruction, spilled toxic, flammable or corrosive materials must be cleaned up immediately.
6. Materials, tools and equipment must not be stored in stairways, corridors, catwalks, ramps, passageways, exits or overhead.
7. Broken glass and other sharp objects must not be disposed of in regular garbage cans.
8. To prevent sliding, falling or collapse, all material should be properly stacked and secured. Pipe, conduit and bar stock should be stored in racks or stacked and blocked to prevent movement.
9. All material must be properly stacked, secured and stored in a manner that permits safe access to and prevents movement.
10. Supervisors have the authority to determine when and where housekeeping is needed in order to improve safety conditions and prevent injury to workers.
11. Chemical agents or substances, which might react to create a hazardous condition, shall be stored and disposed of separately.
12. All electrical cords must be kept in good condition and shall not be used in any way, which could create a tripping hazard.

## LADDERS

### COMPANY SAFETY POLICY

Management and supervisors will;

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5. Monitor the effectiveness of this SWP.
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7. Provide a site specific SWP as required.
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### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

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2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
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### SAFETY EQUIPMENT REQUIRED

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3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

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1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

## TRAINING

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## SAFE WORK PROCEDURE

### PRELIMINARY ACTIVITIES

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### PROCEDURES FOR WORKING SAFELY

#### PREPARATION

1. The lower ends of the ladder shall be placed on a firm and level base. Single and extension ladders must be equipped with no slip safety feet, tied off or otherwise secured to prevent "kicking out" or slipping.
2. The upper part of the side rails shall be rested upon a bearing surface of ample strength to support the load of the ladder and other applied loads.
3. All site constructed ladders are to be built in accordance with WorkSafeBC Requirements.
4. All portable ladders are to be inspected prior to each use. Ladders with loose broken or missing rungs, split side rails or other defects shall be taken out of service and not used until repaired.
5. If work is to be done off of a ladder, new regulations require that the ladder must be tied off and that full fall arrest must be worn.
6. Standard ladders shall not exceed the following limits:
  - stepladders - 20 feet
  - single ladders - 30 feet
  - extension ladders (two sections) - 48 feet
  - extension ladders (more than two sections) - 66 feet

#### HANDLING AND USE

1. The feet of single and extension ladders shall be set 25% of the working height away from the supporting object and extend three feet above the supporting object.
2. Ladders in use must be secured to prevent movement.
3. No workers shall work on the top two rungs of a single or extension ladder, or on the top two steps of a step ladder.
4. Always face a ladder when climbing up or down.
5. Never go up or down a ladder without the use of both hands. If materials must be handled, hoist them up or down by rope.
6. No more than one person is to use or climb a ladder at one time.
7. Ladders shall not be placed on boxes, barrels or any unstable surface to gain more height.
8. Do not over reach while working from a ladder.
9. Ladders shall not be placed in front of doors or windows, which open towards the ladder, unless precautions have been taken to ensure there is no contact between the door or window and the ladder.
10. Do not place a ladder against a window pane.
11. Ladders used in corridors, stairwells or aisles must be barricaded.
12. Ladders used in locations where they may be struck by workers or equipment in the area, must have a watcher stationed at the bottom. Ladders must not be left standing in such a location when not in use.



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13. Metal ladders or wire reinforced wooden ladders, must not be used in proximity to energized powerless or other electrical equipment unless authorized in writing by the WorkSafeBC
14. The upper half of an extension ladder shall not be used as a single ladder.
15. Do not use ladders in a horizontal position as runways or scaffolds.

### **CLEAN UP AND STORAGE**

1. Ladders should be kept clean and free of dirt and other debris.
2. Wooden ladders shall not be painted. If protective coatings are used they shall be transparent.
3. Ladders shall be stored in proper dry storage areas following use.



## LIGHTING

### COMPANY SAFETY POLICY

Management and supervisors will;

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4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

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### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

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#### PROCEDURES FOR WORKING SAFELY

Once the above planning is achieved by the General Contractor, then:

1. All jobsite temporary lighting is to be installed by a qualified electrician in accordance with all applicable Acts and Codes.
2. Lighting shall be installed in a manner, which will minimize potential damage to the wiring, fixtures or light bulbs. If lighting is positioned in an area, which places the bulbs at risk of breakage, the bulbs shall be protected with protective cages.
3. If temporary lighting has been installed in public walkways, check that all bulbs are operating on a regular basis.
4. Temporary lighting circuits are to be used for lighting only. No one shall remove a light bulb from a temporary lighting circuit and replace it with an outlet allowing them to plug in an electrical tool or appliance.
5. Always avoid contact with the wires strung for temporary lighting. Frequent relocation of circuits can loosen connections, break insulation and create other hazards.
6. Beware of tripping and shock hazards from wires strung overhead and underfoot.
7. Take care that wires do not contact steel door frames in final stages of the work, when temporary lines often pass through doors that may be accidentally closed on them.
8. Always be sure to replace broken or burned-out bulbs to maintain lighting levels in stairwells, basements, halls and other areas.
9. When temporary lighting is removed from service, check the wiring and fixtures for breakage and damage. Repair any damage and/or replace any broken fixtures prior to placing the lighting in storage.

## LOADING & UN-LOADING VEHICLES

### COMPANY SAFETY POLICY

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7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

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Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

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## SAFE WORK PROCEDURE

### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

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### PROCEDURES FOR WORKING SAFELY

#### PRELIMINARY ACTIVITIES

1. Prior to loading or unloading any vehicle, ensure that there is a sufficient work area particularly if there is a requirement to load or unload from both sides of a load and the end.
2. Lay down areas must be designated prior to any unloading taking place. These areas should be flagged off during the unloading process to ensure that workers do not go into those areas when lifting is taking place. The same applies to those areas used during loading.
3. Only the workers required to load or unload a vehicle should be present. All workers involved in the loading or unloading operation should be introduced to each other during a crew talk prior to work commencing.
4. All rigging must be inspected prior to loading or unloading.
5. All rigging must be suitable for the materials or equipment being unloaded. Know the weight of the material being lifted and do not overload the rigging.
6. The work area must be stable and as level as possible. Lay down areas must be level and easily accessible for mobile equipment such as forklifts or cranes. The bearing capacity in where the vehicle will be parked during loading and unloading must be capable of supporting the weight of the vehicle when fully loaded. The area must also be able to support any equipment that will be used to unload or load the vehicle.
7. Materials being loaded or unloaded must not pose a hazard to workers in the area. Materials which are stacked must be done in a manner that ensures they will not fall over.
8. A control zone should be established around lay down areas and material storage areas to keep out unnecessary workers.
9. A control zone should be established around the vehicle being loaded or unloaded.
10. Tag lines should be used for all long loads.
11. All loads must be rigged by a qualified rigger and the rigging design for a load must not be changed by unqualified personnel without approval by either the rigger or a designated supervisor.
12. No load shall be lifted or landed until the all clear has been given by the rigger.
13. Prior to loading or unloading vehicles the crane operator and rigger must establish the means of communication. This can be either hand signals or radios. If hand signals are to be used then only the rigger may pass hand signals to the crane operator. The same is true if radios will be used.
14. There may be an order to materials being loaded or unloaded. Ensure the order is maintained and that materials are staged in such a manner to ensure that time is not wasted determining what goes where. This scenario is undesirable as it leads to frustration which may lead to accidents resulting in injured workers or damaged equipment, materials or both.

#### LOADING

1. Ensure the vehicle is level front to rear and side to side to ensure that loaded equipment or materials do not slide off during loading.
2. Ensure that the load is balanced and distributed evenly.
3. Do not move the vehicle until the load is secured.



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4. All loads must be covered by tarps unless otherwise specified by a supervisor.
5. Do not exceed the load limit of the vehicle which is being loaded.
6. Do not unhook the load from the crane until it has been fully landed on the vehicle.
7. Do not land loads on vehicles without first placing dunnage down on the deck of the vehicle.
8. No worker is permitted under a live load at any time.
9. Riggers or workers assisting in landing a load must not place themselves in between the load and an immovable object. This area is known as the bight and is potentially fatal.
10. When tensioning load tie downs ensure that no damage is caused to the load. Use force spreaders on edges to spread the tie down force across a larger area. Place pads on sharp edges to reduce the possibility of webbing straps being cut.
11. When applying load binders exercise extreme caution. Do not have any portion of a body between the load and the binder bar while the bar is coming down into the closed position.

### UNLOADING

1. Ensure the vehicle is level front to rear and side to side to ensure that loaded equipment or materials do not slide off when tie down equipment is removed.
2. Remove tie down equipment from one area of the load to ensure that the load will not shift. If shifting occurs, check that the vehicle is level and that the load is stable. Some shifting is to be expected in loads. If it seems the load is completely unstable and will fall if tie downs are removed then a method of stabilizing the load must be determined and implemented before the vehicle can be unloaded.
3. Only one worker should undo load tie downs. This worker must identify their escape route prior to releasing pressure on the load in the event that the load falls from the vehicle. If no escape route is available then a method of stabilizing the load may be required to ensure the worker is not injured during tie down removal.
4. Stand clear when releasing the tension of load binders or any other type of tensioning device which requires a bar to relieve pressure.
5. All tie downs must be removed fully from the vehicle before unloading commences to ensure they do not become entangled in mobile equipment or pose a hazard to riggers or other workers in the area.
6. Use dunnage between materials to aid in lifting with a forklift or by hand.

## **POWER EQUIPMENT**

### **COMPANY SAFETY POLICY**

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### **EMPLOYER RESPONSIBILITIES**

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### **EMPLOYEE RESPONSIBILITIES**

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2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
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### **SAFETY EQUIPMENT REQUIRED**

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### **TRAINING**



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## SAFE WORK PROCEDURE

### PRELIMINARY ACTIVITIES

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### PROCEDURES FOR WORKING SAFELY

1. No worker shall operate any power tool, or similar type of equipment unless they are familiar with the use and operation of the equipment and has received specific instruction on its use and operations.
2. Instruction in the use, handling, and maintenance of power tools or similar tools, will be given to the workers by the supervisor responsible for the job.
3. Only qualified or specially trained workers may alter, repair, or otherwise be granted access to electrical equipment or electrical tools.
4. No worker shall commence work on any electrical equipment until the equipment has been shut off and locked out as per the lock out procedure. Ensure power supply is completely disengaged.
5. Ground Fault Circuit Interrupters must be installed at the power source for tools, which are not equipped with a ground plug. This includes double insulated tools as well. This is to take place when work is being done in wet environments.

### DRILLS – AIR & ELECTRIC

1. Use of eye protection is mandatory for all workers using or assisting in the use of drill motors of any type.
2. Small parts must be clamped in a vice or to a large piece of material before attempting to drill them.
3. Before using an electric drill, the power cord must be checked for breaks or tears in the insulation. Defective drills must be returned to the shops for repair.
4. Plug ends of electric drills must be capped and have the grounding prong intact.
5. Chuck keys must not be taped to a drill electric cord, as electrocution might occur when insulation has worn through.

### MACHINE GUARDS

Employees, who are responsible for placing equipment into service, are also responsible to ensure that equipment guards are in place. If, due to damage or deterioration, the original guard provided on a piece of equipment cannot be put in place, employees should use a temporary method, offering equal or better protection as approved by WorkSafeBC.

**NO WORKER SHALL IMPAIR, REMOVE OR RENDER INEFFECTIVE, ANY SAFEGUARDS PROVIDED FOR THE PROTECTION OF THEMSELVES OR OTHER WORKERS.**

### AIR HOSES AND COMPRESSED AIR

Compressed air hoses present a serious hazard when used incorrectly, or when fittings become worn or damaged. Compressed air must never be used to clean hair, face, arms, hands or clothing. Blowing dust from clothing on the body can cause skin damage, rupture ear drums, injure eyes, and if used on skin where a small cut is present, air may enter the bloodstream and cause irreversible damage to your health and ultimately death.

**HORSEPLAY WITH AIR HOSES IS EXTREMELY DANGEROUS AND WILL NOT BE TOLERATED!!**

When using compressed air to blow off decks or clean parts of machinery etc., protective screens, goggles, face shield, or safety glasses must be worn as well as hearing protection. Restraining devices shall be used on connections of hoses and tools, which are under pressure, when inadvertent disconnection could cause a reaction harmful to workers.

## RESPIRATORS

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of:

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

Where multiple trade activity is scheduled, General Contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete the scope of work requested.

Once the above planning is achieved by the General Contractor, then:

1. The employer must provide appropriate respiratory protective equipment if a worker is or may be exposed to concentrations of an air contaminant in excess of applicable exposure limit, or to an oxygen deficient atmosphere.
2. The employer/supervisor must select the appropriate respiratory protective equipment for their workers as suggested by the MSDS provided by the supplier of the controlled products being used. Only respiratory protective equipment which meets the requirements of a standard acceptable to WorkSafeBC may be used for protection against airborne contaminants in the work place.
3. A respirator which requires an effective seal with the face for proper functioning must not be issued to a worker unless a fit test demonstrates that the face piece forms an effective seal with the wearer's face.
4. Other personal protective equipment that is to be worn at the same time as a respirator and which could interfere with the respirator fit must be worn during a fit test. The employer must maintain an up-to-date journal of all workers who have been fit tested in accordance to health regulations.
5. Before each use of a respirator which requires an effective seal with the face for proper functioning, a worker must perform a positive or negative pressure fit check.
6. The employer must maintain a record of fit test results and worker instructions, and maintenance for air supplying respirators, powered air purifying respirators and for sorbent cartridges and canisters.

**THERE IS NO TREATMENT FOR SILICOSIS!!**

**Only trained workers are allowed to complete the above procedure. No exceptions!**

## SCAFFOLDING

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

## TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

## SAFE WORK PROCEDURE

### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

### PROCEDURES FOR WORKING SAFELY

1. Scaffolding shall be erected plumb and level and all connections shall be fastened.
2. Workers shall be aware of the regulations on specific types of scaffolds (refer to WorkSafeBC Regulation);
  - wood scaffolds
  - bracket scaffolds
  - needle beam scaffolds
  - thrust out scaffolds
  - swing stages
  - trestle scaffolds
  - suspended powered platform
  - suspended work platform
  - boatswains chairs
  - tower and rolling scaffolds
  - ladder-jack scaffolds
  - outrigger scaffolds
3. The upright supports of scaffolds shall stand on firm foundations or sills. Pallets, boxes, building blocks, bricks and other unstable materials shall not be used for this purpose.
4. The stability of a scaffold, having a height exceeding three times its minimum base dimension, shall be ensured by securing the scaffold to the structure, or by other appropriate means.
5. Scaffolds, 10 feet (3m) or more above grade, shall have guardrails around their open sides.
6. Toe-boards shall be installed around the open sides of scaffolds to prevent tools and equipment from falling from the scaffold.
7. Scaffold planks shall:
  - be not less than 2 by 10 inches (5cm x 25cm), nominal dimension;
  - extend not less than 6 inches (15cm), and not more than 12 inches (30cm) beyond the supports at each end;
  - be supported at intervals not exceeding 7 feet (2.1m) for heavy work, such as bricklaying and masonry, 10 feet (3m) for light work;
  - be of the same thickness as adjoining planks.
8. Work platforms on scaffolds shall have two or more scaffold planks side by side, or manufactured platforms. Whichever method is used must give a work surface of at least a nominal width of 20 inches (50.8cm).
9. When the distance between the front and rear upright scaffold support is greater than 30 inches (76cm), additional planks shall be used so that there is no opening greater than the width of one scaffold plank.
10. Scaffold planks shall not be sloped more than 2 feet (61cm) vertically and 10 feet (3m) horizontally. Sloped planks shall be secured against slipping. They shall be fitted with cleats on their topside at not more than 16 inch (41cm) intervals. Other non-skid surfaces may be used instead of cleats.
11. Scaffolds shall only be put up or taken down by, or under the supervision of, qualified workers.
12. No damaged or weakened scaffold shall be used until it has been repaired.



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

13. Only material, which is being used at the time, shall be kept on any scaffold. Scaffolding shall not be overloaded.
14. Access to scaffolds up to 30 feet (9.1m) in height may be gained by:
  - use of the end-frames, where the design provides a ladder-like structure of uniformly spaced horizontal members; or
  - use of fixed vertical ladders, portable ladders, or stairways.
15. Access to scaffolds over 30 feet (9.1m) high shall be by fixed ladders, stairways, or temporary passenger hoists.
16. Never jump onto or off of scaffold planks.

### TOWER AND ROLLING SCAFFOLDS

#### CONSTRUCTION AND ERECTION

1. Scaffolds shall be constructed and erected in accordance with the manufacturer's specifications and recommendations.
2. All applicable members shall be utilized, including the diagonals in both the vertical and horizontal planes. All necessary fasteners specified and recommended by the manufacturer shall be properly installed and secured.
3. If not using manufactured aluminum planks, a horizontal brace must be affixed to the bottom frame section to prevent the rolling scaffolding from scissoring when moving, or using the scaffold.

#### GUARDRAILS

- Scaffolds with work platforms 10 feet (3m) or more above floor level shall be equipped with guardrails and intermediate rails.

#### SAFE ACCESS

- Access to the platform shall be gained by means of fixed vertical ladders, stairways or hoists in accordance with the requirements of WorkSafeBC Regulations.

#### CASTERS

1. At least two of the four wheels shall be of the caster type.
2. The caster height adjusting pins or screws shall be installed so that they cannot fall out, or be inadvertently screwed out, from their housings when a scaffold leg is raised clear off the floor.
3. Such pins or screws shall not extend more than 2/3 of their total length or in excess of 12 inches (30cm) from their housings.

#### WHEEL LOCKS

- Except as provided by the WorkSafeBC regulation wheels shall be provided with effective locking devices and kept locked when workers are required to work on scaffolds at heights in excess of 10 feet (3m) above floor level.

#### WHEELS

- Wheels shall be not less than 5 inches (12.7cm) in diameter. When the scaffold is used in proximity to energized electrical equipment, the wheels shall be fitted with non-conductive resilient tires and the provisions of WorkSafeBC Regulations shall be complied with.
- Wheels on at least one end of a rolling scaffold must be of the swivel type.

**Where metal scaffolds are used in any situation where the high electrical potentials involved would result in capacitive or induced current in the scaffold structure, the structure shall be grounded.**



### DECKING

- Scaffold planks shall extend not less than 6 inches (15 cm), and not more than 12 inches (30 cm), beyond the end supports or bearers of the structure. They shall be fitted with means to retain planks on the bearers (cleats).
- The entire area within the scaffold structure shall be decked at those levels where workers work or ride except where guardrails are installed immediately about the perimeters of partially decked areas.

### HEIGHT LIMITATION

- The height of any free-standing tower or rolling scaffold shall not exceed three times the minimum dimension of the base, unless the scaffold is securely tied or guyed to prevent overturning.

### OUTRIGGERS

- If outriggers are used to increase the minimum base dimension of a tower or rolling scaffold, they must be installed on both sides of the scaffold structure unless the scaffold is adjacent to a building or structure, the scaffold must be braced against the structure, and outriggers used on the opposite side.

### ROLLING SCAFFOLDS; RIDING BY WORKERS

1. No worker shall remain on a rolling scaffold while it is being moved by other workers if the platform height exceeds twice the minimum base dimension.
2. No worker shall remain on a rolling scaffold while it is being moved by his own efforts if the platform height exceeds 1.5 times the minimum base dimension.
3. If the platform height exceeds 1.5 times the minimum base dimension of the scaffold, a worker on the work platform is not permitted to move the scaffold.

### FLOOR REQUIREMENTS

- The floor or surface on which the scaffold is moved shall be within three degrees of level and shall be free from pits, holes, depressions, or obstructions.
- The floor or surface over which an occupied rolling scaffold is moved must be sufficiently firm, within 3 degrees of level, and free from pits, holes, depressions, waste material, or obstructions so as to ensure stability of the scaffold.

### ASSEMBLING MULTIPLE SCAFFOLDING FRAMES

1. When assembling multiple scaffold frames for deck form work it must be done in a consistent manner, particularly when workers will be working above 10 feet.
2. A control zone should be established to limit access to the work area to authorized personnel only.
3. Set one level of scaffold frames up before commencing work on the second level. When the height of the work is approaching 10 feet we must ensure that adequate anchor points are provided. By constructing width first instead of height we minimize the scaffolding system being tipped over in the event a worker falls.
4. It is important that all components of the scaffolding system be braced together. Scaffold towers should be connected together using cross braces if practicable.
5. Any non-standard components used in the scaffold system must be engineered and the applicable drawings must be available on site and reviewed with the workers responsible for installing those components.
6. When assembling scaffolding for the support of formwork the following procedures will be followed;
7. Place the first set of frames on the deck where the formwork will start. Install two (2) angle braces, one on each side of the frame. Frames should be supported on flat feet, either screw jack or fixed. U heads should not be used as supports for scaffolding frames under any circumstances. Do not use scaffold frames without adequate supports installed.
8. Continue erecting the first level of scaffolding frames until the entire area to be decked is covered. Connect frame sets together using angle braces to ensure stability in the entire scaffold system.
9. Position a 20 inches work platform on the first level of frames and add the second level of scaffolding. The work platform must be constructed out of 2 inch x 10 inch planks or manufactured components. The platform must be capable of supporting the number of workers who will be on the platform. It is recommended that not more than two (2) workers are on a scaffold set at once. Add cross braces as each set of frames is installed.

10. Work platforms are required on each level of scaffolding when working at 10 feet or higher and fall arrest must be used by all workers.
11. Continue erecting the second level of scaffolding frames adding cross bracing between frame sets as required.
12. Continue erecting scaffold frames for additional levels until the required height is achieved.
13. Depending on the height of the frames being used workers may be working above 10 feet. If workers will be assembling scaffolding above 10 feet they must use fall arrest equipment consistent with the way they were instructed.
14. Anchor to the frame of the scaffolding and not the cross braces. Lanyards used for anchoring must have a ladder type self locking hook on them.
15. Lanyards must be kept as short as possible.
16. Workers are not permitted to stand or step onto cross bracing for any reason.

### **ADDITIONAL FRAME SCAFFOLD SAFE WORK PROCEDURE FROM THE MANUFACTURER**

#### **Install frames from lower level procedure**

Install the upper level of frames from the lower decked level, once the frames are installed and pinned, install the decking above you. When complete, using a CSA approved retractable shock absorbing lanyard attach to the scaffold leg above you, climb up onto the decking, have someone pass or pull the braces up. Install the braces, un-attach your lanyard from the leg and attach to the leg of the next frame, install the braces in this manner to the end of the run, install decking. Repeat the procedure on the next level.

#### **Safe work procedure – Erecting**

Before any erecting begins, the field superintendent or site foreman will conduct a toolbox meeting to familiarize the crew with the job, and to review the plan and procedure to be followed. This procedure and the SSFPP should be included in the meeting. Minutes of the meeting must be recorded.

If vertical lifelines are used, they should be located every third bay of scaffolding to minimize any potential for swing fall.

The area above and/or below where the scaffold is being erected (as applicable) should be cordoned off to prevent access by any person. A falling object may strike persons not involved in the process, and workers above may create a falling object. Check all scaffold components to ensure they are not bent or damaged. Do not use any suspect components. Set them aside and mark them to ensure other workers do not inadvertently use them until they can be inspected and approved for use by a qualified individual.

#### **Getting started**

1. Utilize fall protection as set out in your specific fall protection plan.
2. Ensure you have a level foundation and that ground conditions are suitable for loading.
3. Using screw jack base plates (do not extend jacks more than 2/3s the length), stand jacks centered on adequate sills.
4. Set frames on screw jacks.
5. Connect the end frames using cross braces, ensuring the unit is plumb and level.
6. Continue to the end of the run.
7. Install the second lift of frames.
8. Install planks or manufactured aluminum decks.
9. Climb onto the decked level, install cross braces, guardrails, pigtails and end stops as required.
10. Install frames, planks or manufactured decks.
11. Climb up onto decked level, install cross braces, guardrails, pigtails and end stops as required.

Install the first row of tie-ins, they should be placed vertically at three times the minimum base dimensions, with the next tie set 20 feet vertically and 21 feet horizontally or every 3<sup>rd</sup> bay whichever is less, or as specified by a professional engineer. Tie-ins must also be placed at the end of each scaffold.

Once a pattern has been established continue to the end of the scaffold run in this manner.

Do not leave building tie-ins, cross braces, pins, tubes, clamps, pigtails, etc. until the scaffold is erected. All required components are to be installed progressively, as the scaffold is built.

Once completed the scaffold should be inspected and tagged by a qualified scaffold representative.

Ensure adequate access to the scaffold is maintained at all times, and that there are no loose components on or around the scaffold before leaving the jobsite.

### **Safe work procedure – Dismantling**

Before any dismantling begins, the superintendent or the foreman will do a site inspection to identify any potential hazards or if any modifications were done to the scaffold. Conduct a toolbox meeting to familiarize the crew with the job, and to review the plan and procedure to be followed. This procedure and the SSFPP should be included in the meeting. Minutes of this meeting must be recorded.

If vertical lifelines are used, they should be located every third bay or scaffolding to minimize any potential for swing fall (unless utilizing the “1<sup>st</sup> Bay” procedure).

The area above and/or below scaffold dismantling (as applicable) should be cordoned off to prevent access by any person. A falling object may strike persons not involved in the process, and workers above may create a falling object.

### **Getting started**

1. Utilize fall protection as set out in your site specific fall protection plan.
2. If a roof like structure was erected on the top of the scaffold, workers in the top of the scaffold and if necessary on the roof, will utilize fall protection equipment in accordance with the SSFPP.
3. All horizontal and vertical tube and clamp that is removed must be passed down to the worker below on the scaffold, then passed or lowered to the ground, do not stock pile on the scaffold. Dismantle the scaffold from the top down; do not remove ties until you have removed the scaffold above the tie.
4. Remove rails, braces, end stops and pass or lower to the ground, do not drop or throw components.
5. Climb down to the lower level. Remove decks from the upper level, pass or lower to the ground.
6. Remove frames from the upper level and pass or lower down.
7. Climb down to the lower level. Remove rails, braces, end stops and pass or lower down
8. Continue in this manner working from the lower level removing ties and components until you have reached the ground. Ensure the area is clean before leaving the site.

## SILICA DISPOSAL

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

## TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

## SAFE WORK PROCEDURE

### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

### PROCEDURES FOR WORKING SAFELY

Where multiple trade activity is scheduled, General Contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete the scope of work requested.

Once the above planning is achieved by the General Contractor, then:

1. Evaluate the area for hazards and the impact on other workers in the clean-up and disposal area. Where a worker, other than the concrete finisher, is exposed to concrete dust, the area should be restricted by the use of caution tape and signage.
2. Signage must be posted when conducting clean up operations such as emptying vacuums or cleaning tools. Signage must indicate that clean up and disposal is in progress and that respiratory protection is required.
3. Ensure there is adequate lighting.
4. Proper eye protection and personal protection equipment must be used.
5. Each worker performing clean up and disposal is to be assigned a respirator for their sole use.
6. Cleanup and disposal of silica dust must be done in a controlled manner ensuring that there is no accidental release of the dust. The following points must be adhered to:
  - Emptying of vacuums or cleaning of tools should be done in an area which is away from common areas such as lunch rooms or access/egress routes.
  - Workers will set up the silica dust cleaning and disposal station by laying a poly mat at the defined cleaning area and having bucket for cleaning filters.
  - All dust from vacuums is to be double bagged with heavy duty garbage bags or placed in a container resistant to puncture or accidental opening i.e. pipe capped with duct tape
  - Vacuums are to be emptied by first removing the cover to the vacuum carefully and then placing a doubled up heavy duty plastic garbage bag over the opening.
  - Contents are then dumped into the garbage bags.
  - The top of the bags should be grabbed in such a way so as to minimize fugitive emissions of silica dust.
  - Water is added to the bag so as to create a paste which will minimize the dust hazard. Do not fill the bag completely with water as this will make it too heavy to lift safely and will create a potentially bigger hazard if the bag should accidentally be punctured.
  - Bags should not be filled more than half full to ensure they can be carried safely by a worker.
  - Do not dry sweep silica dust on floors unless dust suppressant is used or silica dust is suppressed with water.
  - Blowing (i.e. compressed air) of Silica dust is NOT permitted.
  - Use of low velocity air is permitted for removing Silica dust from clothing and/or tools, but this must be done in an enclosed area to prevent the spread of Silica dust.
  - All silica dust will be collected in the prescribed plastic garbage bags and/or containers and clearly marked "Silica".



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

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- Bags should be removed as soon as possible and should be disposed of in a separate garbage container to prevent bags from getting punctured and dust spreading into areas where other workers or the public are present.
  - Transport the garbage bags to ground level on their own (i.e. not with other garbage types such as scrap wood which may cause bags to be penetrated)
  - All plastic bags containing silica disposal will then be disposed of in prescribed areas (concrete bin, garbage bin).
7. Before leaving work, remove work clothes, place into a plastic bag and sealed tightly. This will help avoid contamination during transportation before the clothes are washed.
  8. It must be stressed to all workers that lunch and rest areas are off limits to anyone who is working either directly or indirectly in concrete finishing operations.



## **SMALL POWER TOOLS**

### **COMPANY SAFETY POLICY**

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### **EMPLOYER RESPONSIBILITIES**

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### **EMPLOYEE RESPONSIBILITIES**

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### **SAFETY EQUIPMENT REQUIRED**

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

## TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

## SAFE WORK PROCEDURE

### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

### PROCEDURES FOR WORKING SAFELY

#### PRELIMINARY ACTIVITIES

Prior to using any power tools the following must take place;

1. Always inspect tools, power cords and electrical fittings prior to each use. Repair or replace damaged equipment immediately.
2. Do not wear gloves, loose fitting clothing or jewelry when using revolving power tools.
3. Always ensure that tools are switched off before connecting them to a power supply.
4. Always ensure tools are properly grounded or double insulated. Grounded tools must have an approved 3 wire cord with 3 prong plug.

#### GENERAL PROCEDURES

1. Do not bypass the switch and operate the tools by connecting and disconnecting the power cord.
2. Disconnect power cord before making adjustments.
3. Do not use power tools in wet conditions or damp locations unless the tool is connected to a Ground Fault Circuit Interrupter (GFCI) or have an assured grounding system in place.
4. Never operate tools in an area containing explosive gases or vapours.

#### POWERED TOOLS

1. Always inspect tools, power cords and electrical fittings prior to each use.
2. Repair or replace damaged equipment.
3. Do not wear gloves, loose fitting clothing or jewelry when using revolving power tools.
4. Always ensure that tools are switched off before connecting them to power supply.
5. Always ensure tools are properly grounded or double-insulated. Grounded tools must have an approved 3 wire cord with 3 prong plug.
6. Before using powder actuated tools, you must be trained in the specific make and model of tool and must possess a valid qualified operator's certificate issued by the manufacturer or other qualified instruction agency.
7. Workers who use this type of tool must be familiar with WorkSafeBC regulations.

**Maintain tools carefully. Keep them clean and dry, and store them properly after each use.**

#### DRILLS

1. Always wear safety glasses or a face shield.
2. Check drill bits prior to use. Always ensure that drill bits are sharp and that they are not bent.
3. Secure the work piece being drilled. Small pieces should be clamped to avoid movement. Never hold a piece with one hand while drilling with the other. Do not reach under or around material being drilled.
4. Drill a small pilot hole prior to drilling large holes. Never use a hole saw without the pilot drill.

5. Follow manufacturers' instructions when selecting and using a bit or attachment. Use auxiliary (second) handle for large work.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

Once the above planning is achieved by the General Contractor, then:

##### HAND TOOLS

The procedures and guidelines for hand tools on the site are:

1. Always keep hand tools in a safe working condition.
2. Avoid using defective tools like those with cracked belts, defective handles or mushroom heads.
3. Do not carry sharp edged or pointed tools in pockets.
4. All hand tools should be used only for the purposes for which they were designed.
5. When power tools are left unattended, turn off the source of power.
6. Those approved portable electric tools that require a ground wire must be properly maintained and connected.

##### BASIC TOOLS TO BE SUPPLIED BY CARPENTERS

- 1" chisel
- 12" crescent wrench
- 10" nail pull bar or cat's paw
- 24" (min.) level (true)
- 25' tape measure (Imperial and/or Metric)
- 100' tape measure
- Chalk line & Dry line
- Combination square
- Framing square
- Hammer
- Hard hat
- Safety footwear (CSA approved)
- hand saws (8 point)
- Plumb bob - 24 oz
- Utility knife
- Wire pliers (8' Linesman)
- Fall Arrest Equipment (3 point harness, lanyard & rope grab)
- Sub-contractors to provide power tools and electrical cords



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### BASIC TOOLS TO BE SUPPLIED BY LABORERS

- Personal protective equipment
- Hammer
- Measuring tape
- Crescent wrench
- Fall arrest Equipment (when required)

### BASIC TOOLS TO BE SUPPLIED BY CEMENT FINISHERS & SUB-CONTRACTORS

- All tools relevant to their scope of work (except heavy equipment)

### BASIC TOOLS TO BE SUPPLIED BY LAYOUT MAN & SUB-CONTRACTORS

- Visibility vest
- Equipment relevant to their scope of work

### PNEUMATIC TOOLS

1. Proper certification in the use of pneumatic tools is necessary.
2. Only authorized, experienced, and trained workers may use pneumatic nailing and stapling tools.
3. Tools must be inspected and in good working order at all times.

### POWERED TOOLS

1. Always inspect tools, power cords and electrical fittings prior to each use. Repair or replace damaged equipment.
2. Do not wear gloves, loose fitting clothing or jewelry when using revolving power tools.
3. Always ensure that tools are switched off before connecting them to power supply.
4. Always ensure tools are properly grounded or double-insulated. Grounded tools must have an approved 3 wire cord with 3 prong plug.
5. Before using powder actuated tools, training must be done for the specific make and model of tool & must possess a valid qualified operator's certificate issued by the manufacturer or other qualified agency.
6. Workers who use this type of tool must be familiar with WorkSafeBC regulations.

### GENERAL

1. Do not bypass the switch and operate the tools by connecting and disconnecting the power cord.
2. Disconnect power cord before making adjustments.
3. Do not use power tools in wet conditions or damp locations unless tool is connected to a Ground Fault Circuit Interrupter (GFI).
4. Never operate tools in an area containing explosive gases or vapours.

**Maintain tools carefully. Keep them clean and dry, and store them properly after each use.**

### DRILLS

1. Always wear safety glasses or a face shield.
2. Check drill bits prior to use. Always ensure that drills are sharp and that they are not bent.
3. Secure the work piece being drilled. Small pieces should be clamped to avoid movement. Never hold a piece with one hand while drilling with the other. Do not reach under or around stock being drilled.
4. Drill a small pilot hole prior to drilling large holes. Never use a hole saw without the pilot drill.
5. Follow manufacturer's instructions when selecting and using a bit or attachment. Use auxiliary (second) handle for larger work.



### **CIRCULAR SAWS**

1. Always use a sharp blade that is designed for your work. Select the correct blade and allow the blade to cut steadily, do not force it.
2. Check the retracting lower blade guard often to make certain it works freely.
3. Ensure the blade guard has fully returned before laying the saw down.
4. Always use two hands to operate the saw, one on the trigger switch and the other on the front knob handle.
5. Before cutting, always check materials for obstructions and foreign materials such as nails and screws.
6. Never hold or fix the retracting blade guard in the open position.
7. Never force the saw while cutting. Do not twist the saw to change, cut or check alignment.

## TRAFFIC CONTROL

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.



### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

1. Effective January 1, 2007 all workers who are required to direct traffic which could pose a hazard to them must be qualified to do so by an agency recognized by WorkSafeBC.
2. Superintendents and supervisors must ensure that effective traffic control is provided and used whenever the uncontrolled movement of vehicle traffic could be hazardous to workers. These traffic control procedures must meet the requirements of the latest edition of the Traffic Control Manual for Work on Roadways (the "Traffic Control Manual") issued by the Ministry of Transportation of Highways (MOTH).
3. During traffic control operations a supervisor must be designated to be responsible for ensuring that:
  - The required traffic control devices are in place,
  - Each member of the traffic control crew wears the required personal protective clothing and equipment,
  - Traffic control persons are positioned in a safe location clear of potential environmental hazards such as a slide or avalanche,
  - Traffic control persons perform traffic control duties competently and safely,
  - If two or more traffic control persons are required to work as a team at the worksite, responsibility for coordination of changes in traffic flow is assigned and radio communications are available when required.
4. Traffic control devices must be put in place before commencing operations and must be removed when they are no longer required.
5. Traffic control persons are required when any of the following conditions prevail;
  - Traffic is required to pass a worker, equipment or other obstruction which may block all or part of the traveled roadway,
  - Workers or equipment are employed on the traveled way over the brow of a hill, around a sharp curve, or at any other location where sight distance is not adequate for oncoming traffic to have adequate warning of their presence,
  - It is necessary to institute a one-way traffic system through a construction zone where traffic volumes are heavy, approach speeds are high, and a traffic signal system is not used.
  - Construction vehicle traffic is not coordinated with an existing traffic control system, or an existing traffic signal light system is not adequate to
  - Regulate traffic, or the work encroaches into an intersection so as to interfere with regular traffic movement.
  - Traffic speed or volume is a hazard to workers while setting up or removing other traffic control devices,
  - Other traffic control devices are not available for emergency protection, and
  - Workers are not adequately protected by other traffic control devices.
6. A traffic control person must be a responsible worker who has been instructed in, and has demonstrated an adequate knowledge of this regulation and relevant procedures from the Traffic Control Manual. Employers of traffic control persons must train and instruct those workers in a course acceptable to the Board.
7. During traffic control operations a traffic control person must remain on duty at the assigned station until relieved and must be paying attention at all times.



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

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8. A traffic control person must stand in a safe position, preferably on the driver's side of the lane under the flag persons control, be clearly visible and have an unobstructed view of approaching traffic, and be positioned at least 80 feet (25 m) away from the work area unless circumstances or space requirements such as working at or near an intersection dictate otherwise.
9. Signs advising of a traffic control person ahead must be placed in advance of each traffic control persons station and removed promptly when traffic control persons are no longer on duty at that station.
10. Appropriate traffic control paddles and reflective clothing must be worn by all traffic control persons. Safety headgear of a high visibility color with a strip of retro-reflective tape about the crown.
11. A traffic control person must make all traffic control motions and signals precisely and deliberately so that the meaning of signals can be clearly understood.
12. Where traffic is diverted onto dusty surfaces, the principal contractor must maintain good visibility by the periodic application of water or other acceptable material to grade surface to suppress dust.

## WHMIS

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

1. All workers who enter onto a project site must have been instructed in, and show demonstrated knowledge of, the requirements of WHMIS.
2. An inventory and applicable MSDS for products used on the work site must be in place and maintained at each work site.
3. Workers who are exposed to, or likely to be exposed to, hazardous products on the work site, must be trained in the safe use and handling of the products.
4. A current set of MSDS sheets must be maintained at the work site and be readily available to all workers on all shifts at the work site.
5. A method of work place labeling for product transferred to containers other than the original, must be developed and implemented prior to the start of the project. All workers on the project are to be instructed in and made familiar with the workplace labeling system.
6. Prior to using any hazardous product, workers shall review the product label and, as required, the MSDS for the product to ensure knowledge of the safe use of the product.
7. Workers should only use a product for its original purpose and shall use products only according to the Manufacturer's directions provided on the label and the MSDS.
8. Workers shall wear and use personal protective equipment (PPE) as determined by a review of the label and product MSDS.
9. If a product is removed from its original container and placed in another container, workers shall be responsible for obtaining and placing the appropriate workplace label on the new container.
10. Should there be a spill or leak involving a hazardous product, workers involved shall immediately notify the Foreman or Superintendent. Cleanup shall be done by knowledgeable people and shall be in accordance to the product label and MSDS.
11. Empty hazardous materials containers shall be disposed of according to the product label or MSDS.
12. All products must be stored according to the requirements of the product label or MSDS. Special care should be taken not to store incompatible products in proximity to each other.

## WORKING WITH TOOLS – CUT OFF SAW

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

##### WORK AREA

1. Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
3. Keep bystanders, children, and visitors away while operating a power tool. Distractions can cause you to lose control.

##### ELECTRICAL SAFETY

1. Double Insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way. Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
2. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.
5. When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.

##### PERSONAL SAFETY

1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
3. Your finger on the switch or plugging in tools that have the switch on invites accidents.
4. Remove adjusting keys or wrenches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
5. Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
6. Use safety equipment. Always wear eye protection. Dust mask, nonskid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.





## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### TOOL CARE AND USE

1. Use clamps or other practical way to secure and support the work piece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.
2. Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
3. Do not use tool if switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
4. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
5. Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
6. Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
7. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
8. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool, may become hazardous when used on another tool.

### SAFE USE OF CUT-OFF SAW

1. General operation precautions;
  - Keep work areas clean. Cluttered areas and benches invite injuries
  - Consider work area environment. Do not expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit. Do not use tool in presence of flammable liquids or gasses.
  - Guard against electric shock. Prevent body contact with grounded surfaces.
  - Keep children away. Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
  - Store idle tools. When not in use, tools should be stored in dry and high or locked containers.
  - Don't force the tool.
  - Use the right tool for the job. Do not use small tools or attachments for work which requires a heavy duty tool.
  - Dress properly. Do not wear loose clothing or jewelry.
  - Use safety glasses when operating the tool.
  - Don't abuse the power cord. Never carry or lift the tool by the power cord.
  - Don't overreach. Keep proper footing and balance at all times while operating the tool.
  - Proper maintenance of tools is mandatory. Clean the tool at the end of each day and inspect regularly to ensure that there are no signs of damage.
  - Disconnect the tool when not in use, before cleaning and when changing blades, bits or cutters.
  - Remove adjusting keys or wrenches before operating the tool.
  - Ensure that you have a good grip on the tool to avoid unintentional starting.
  - Use the appropriate extension cord for the scope of work you are completing as well as the location you are working in.
  - Stay alert. Be aware of your surroundings and other personnel that are in the area.
  - Don't use tools for applications they were not designed for.
  - Don't use attachments that are not recommended for the tool.
  - Don't touch any movable part of the tool unless the power cord is unplugged and you are certain that there is no power going to the tool.
  - Operate the tool below the rated input to ensure the tool is not damaged due to overload.
  - Do not wipe plastic parts of the tool with solvents



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

2. Use precautions include;
  - Never operate the tool without wheel guards
  - Use only cutting wheels with a "Safe Speed" at least as high as the "No-Load RPM" indicated on the power tool nameplate

3. Prior to operation

**The cut-off saw can be used for the following applications: cutting sheet metal, reinforcing rods, concrete wire mesh, and corrugated floor. No other applications are recommended.**

- Ensure that the power source to be utilized conforms to the power requirements specified for the tool
  - Ensure that the power switch is in the OFF position before plugging the tool in.
  - If an extension cord is use it must be of sufficient thickness and rated capacity to ensure that tool efficiency is not diminished. Keep extension cords as short as possible.
  - Ensure that the wheel guard is properly fitted and fastened before commencing any cutting operation.
  - Ensure that the cutting wheel to be used is the correct type for the application. The wheel must be free of cracks or surface defects. Ensure that the cutting wheel is properly mounted and the wheel nut is securely tightened.
  - Trial runs are recommended after a new wheel has been installed on the tool or before commencing routine cutting operations.
4. Cut-off saw application;
    - To prolong the life of the machine and ensure a first class finish it is important that the machine should not be overloaded by applying too much force.
    - After switching off the machine allow the cutting wheel to stop completely before setting the tool down.
    - Always place the tool down so that the cutting wheel is facing up.

## WORKING WITH TOOLS - SAWS

### COMPANY SAFETY POLICY

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### EMPLOYER RESPONSIBILITIES

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure and that the Material Safety Data Sheet is provided when required and understood by all workers.

### EMPLOYEE RESPONSIBILITIES

1. To ensure he is properly trained and then performs the task safely.
2. To ensure he uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### SAFETY EQUIPMENT REQUIRED

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Hearing protection.
4. Eye protection.
5. Other PPE called for in the applicable MSDS.

Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

#### PROCEDURES FOR WORKING SAFELY

##### GENERAL OPERATION PRECAUTIONS;

1. Keep work areas clean. Cluttered areas and benches invite injuries
2. Consider work area environment. Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit. Don't use the tool in presence of flammable liquids or gasses.
3. Guard against electric shock. Prevent body contact with grounded surfaces.
4. Keep children away. Do not let visitors contact any tool or extension cord. All visitors should be kept away from work area.
5. Store idle tools. When not in use, tools should be stored in dry and high or locked containers.
6. Don't force the tool.
7. Use the right tool for the job. Do not use small tools or attachments for work which requires a heavy duty tool.
8. Dress properly. Do not wear loose clothing or jewelry.
9. Use safety glasses when operating the tool.
10. Don't abuse the power cord. Never carry or lift the tool by the power cord.
11. Don't overreach. Keep proper footing and balance at all times while operating the tool.
12. Proper maintenance of tools is mandatory. Clean the tool at the end of each day and inspect regularly to ensure that there are no signs of damage.
13. Disconnect the tool when not in use, before cleaning and when changing blades, bits or cutters.
14. Remove adjusting keys or wrenches before operating the tool.
15. Ensure that you have a good grip on the tool to avoid unintentional starting.
16. Use the appropriate extension cord for the scope of work you are completing as well as the location you are working in. Stay alert. Be aware of your surroundings and the personnel that are in the area.
17. Don't use tools for applications they were not designed for.
18. Don't use attachments that are not recommended for the tool.
19. Don't touch any movable part of the tool unless the power cord is unplugged and you are certain that there is no power going to the tool.
20. Operate the tool below the rated input to ensure the tool is not damaged due to overload.
21. Do not wipe plastic parts of the tool with solvents

### USE PRECAUTIONS

1. Never operate the tool without guards in place
2. Use the blade designed for the materials you are cutting. Keep saw blades sharp and replace when there are signs of excessive wear. Excessive wear is characterized by rounding on the teeth, wear at the mounting hole or warping of the blade body.
3. Use only cutting wheels with a "Safe Speed" at least as high as the "No-Load RPM" indicated on the power tool nameplate

### PRIOR TO OPERATION

**The cutoff saw can be used for the following applications: cutting sheet metal, reinforcing rods, concrete wire mesh, and corrugated floor. No other applications are recommended.**

1. Ensure that the power source to be utilized conforms to the power requirements specified for the tool
2. Ensure that the power switch is in the OFF position before plugging the tool in.
3. If an extension cord is used it must be of sufficient thickness and rated capacity to ensure that tool efficiency is not diminished. Keep extension cords as short as possible.
4. Ensure that the wheel guard is properly fitted and fastened before commencing any cutting operation.
5. Ensure that the cutting wheel to be used is the correct type for the application. The wheel must be free of cracks or surface defects. Ensure that the cutting wheel is properly mounted and the wheel nut is securely tightened.
6. Trial runs are recommended after a new wheel has been installed on the tool or before commencing routine cutting operations.

### CIRCULAR SAW APPLICATION

1. Hold the retracting blade guard in the open position.
2. Place your hand under the shoe or the guard of the saw.
3. Over-tighten the blade-locking nut.
4. Twist the saw blade while cutting.
5. Do not use a saw that vibrates or seems to be unsafe in anyway.
6. Do not force a saw at any time during a cut.
7. Do not cut anything without first checking for obstructions such as nails and screws. They could shatter the blade, sending metal fragments flying about, or could be violently ejected from the blade and cause a serious injury.
8. Never carry a saw with your finger on the trigger switch.
9. Never overreach. Keep firm footing and proper balance at all times.
10. Never rip the work without using a guide that is clamped or nailed to the workplace.

### CUT-OFF SAW APPLICATION

1. To prolong the life of the machine and ensure a first class finish it is important that the machine should not be overloaded by applying too much force.
2. After switching off the machine allow the cutting wheel to stop completely before setting the tool down.
3. Always place the tool down so that the cutting wheel is facing up.

### CHAIN SAW APPLICATION

1. If you have never used a chainsaw ask for instructions.
2. Inspect chain to ensure it is installed correctly.
3. Correct tension on chain.
4. Chain is to be sharp.
5. Check oil in all oil chambers.



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

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6. Ensure chain brake is operating.
7. Do not use the chainsaw if the brake is not operating correctly.
8. Ensure material to be cut is clean.
9. Ensure material to be cut is firmly held, and supported close to the line of cut to prevent binding of blade.
10. A chainsaw is never to be handled with one hand.
11. Ensure the work area is clean and free of obstacles.
12. Extreme caution to be exercised when cutting material above the waist.
13. The chain must come to a stop before moving from one cut to another.
14. Store chainsaw in clean dry area.
15. Ensure chain cover is in place.
16. Ensure fuel and oil is not leaking.

### **SAW MAINTENANCE**

1. A saw must be inspected frequently and maintained in a safe condition.
2. A dull, badly set, improperly filed or tensioned saw, or an inserted tooth saw with poorly fitting shanks or worn bits, must be removed from service.
3. A saw must be inspected for cracks and other defects each time the saw is sharpened, and a cracked saw must be removed from service until repaired by a qualified person.
4. A saw or saw collar damaged by excessive heat or undue stress must be removed from service until inspected and repaired by a qualified person.



## **WORKING WITH TOOLS – WET/DRY MASONRY SAW**

### **COMPANY SAFETY POLICY**

Management and supervisors will;

1. Adhere to the WorkSafeBC Regulation as well as any local Government health and safety regulations and ensure all our workers do the same.
2. Provide the safest possible conditions on site for all workers.
3. Ensure all employees are properly trained in regards to this SWP.
4. Ensure all employees abide by this SWP.
5. Monitor the effectiveness of this SWP.
6. Update and revise this SWP as required.
7. Provide a site specific SWP as required.
8. Believe that safety is everyone's responsibility, and a team effort must be made to keep safe work site conditions.

### **EMPLOYER RESPONSIBILITIES**

1. To provide safe tools, equipment, and materials to facilitate the work being performed.
2. To ensure all workers are trained, and perform the scope of work safely.
3. To ensure that all Supervisors understand that workers must comply with all safety aspects of this procedure.

### **EMPLOYEE RESPONSIBILITIES**

1. To ensure worker is properly trained and then performs the task safely.
2. To ensure worker uses only safe tools, equipment, and materials to facilitate safe construction.
3. Use common sense, if you don't know the procedure or proper equipment to use then ask.

### **SAFETY EQUIPMENT REQUIRED**

The following PPE is required by all workers while working on site;

1. CSA approved safety boots. Boots must be in good repair.
2. CSA approved hard hat. Hard hat must be in good repair with no modifications.
3. Adequate clothing consisting of long pants and shirts with a minimum of 4" sleeves to protect from routine hazards on site.

Additional PPE may be required in the form of;

1. Respiratory equipment.
2. Rubber gloves.
3. Dual Hearing protection (ear plugs and ear muffs).
4. Eye protection. Check with your supervisor for additional PPE requirements.

### TRAINING

Workers must be trained prior to commencing work on the procedures detailed below. This training will be done by your supervisor or our safety manager as required.

Proof of training is required and must be readily available on site. Use Form-0042 to record the names of all workers who have participated in a crew talk on this SWP.

### SAFE WORK PROCEDURE

#### PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work.

Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

Wet/Dry Saw must be used according to manufacturer's specifications and guidelines as provided with manual, failure to do so could result in injury.

### PROCEDURES FOR WORKING SAFELY

#### GENERAL OPERATION PRECAUTIONS;

1. Keep work areas clean. Cluttered areas and benches invite injuries
2. Respiratory equipment must be worn if there is any chance of airborne silica dust.
3. Guard against electric shock. Prevent body contact with grounded surfaces.
4. Dress properly. Do not wear loose clothing or jewelry.
5. Use safety glasses and hearing protection when operating the saw.
6. Don't abuse the power cord. Never carry or lift the tool by the power cord.
7. Don't overreach. Keep proper footing and balance at all times while operating the tool.
8. Proper maintenance of this equipment is mandatory. Clean the equipment at the end of each day and inspect regularly to ensure that there are no signs of damage.
9. Disconnect the equipment when not in use, before cleaning and when changing blades, bits or cutters.
10. Remove adjusting keys or wrenches before operating the tool.
11. Ensure that you have a good grip on the tool to avoid unintentional starting.
12. Use the appropriate extension cord for the scope of work you are completing as well as the location you are working in.
13. Stay alert. Be aware of your surroundings and the personal that are in the area.
14. Don't use tools for applications they were not designed for.
15. Don't use attachments that are not recommended for the tool.
16. Don't touch any movable part of the tool unless the power cord is unplugged and you are certain that there is no power going to the tool.(lockout).

### PRIOR TO OPERATION

**The wet masonry saw can be used for the following applications in conjunction with a Hepa- filter respirator:  
Concrete, Masonry Blocks, Cinder blocks, bricks.**

1. Ensure that the power source to be utilized conforms to the power requirements specified for the tool
2. Ensure that the power switch is in the OFF position before plugging the tool in.
3. If an extension cord is use it must be of sufficient thickness and rated capacity to ensure that tool efficiency is not diminished. Keep extension cords as short as possible and kept off the floor so it does not come in contact with water.
4. Ensure that the wheel guard is properly fitted and fastened before commencing any cutting operation.
5. Ensure that the cutting wheel to be used is the correct type for the application. The wheel must be free of cracks or surface defects. Ensure that the cutting wheel is properly mounted and the wheel nut is securely tightened.
6. Trial runs are recommended after a new wheel has been installed on the tool or before commencing routine cutting operations.

### SPECIFIC GUIDELINES – WET/DRY PORTASAW

1. Read and understand the entire operator's manual before using this machine.
2. Keep all guards in place and in good condition.
3. Always use dual hearing protection, during normal use of this machine, operator may be exposed to a noise level equal or superior to 85db (A).
4. Ensure operator keeps all parts of their body away from the blade and all other moving parts.
5. Ensure operator knows how to stop the machine quickly in case of emergency.
6. When refueling, shut off the engine and allow it to cool.
7. Make sure to inspect the blade, flanges and shafts for damage before installing the blade.
8. Use only reinforced abrasive blades or steel centre diamond blades manufactured for use on masonry saws.
9. Use only blades marked with a maximum operating speed greater than the blade shaft speed. Verify speed and saw drive configuration by checking blade shaft RPM and pulley diameters and blade flange diameters.
10. Inspect all blades carefully before using it. If there are any signs of damage or unusual wear, **DO NOT USE THE BLADE**.
11. Mount the blade solidly and firmly. Wrench tighten the arbor nut.
12. Make sure the blade and flanges are clean and free of dirt and debris before mounting the blade on the saw.
13. Cutting, especially when DRY cutting, generates dust that comes from the material being cut, which frequently contains silica. Take precautionary steps to avoid inhalation of and skin contact with dust. Wet cut when feasible, to minimize dust.
14. Operate this machine only in well ventilated areas.
15. Instruct bystanders on where to stand while the machine is in operation.
16. Clear the work area of unnecessary people. Never allow anyone to stand in front of or behind the blade while the engine is running.
17. Remove adjusting keys and wrenches from tool before turning it on.
18. Ensure the machine is turned off when unattended.



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

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### **SAW MAINTENANCE**

1. A saw must be inspected frequently and maintained in a safe condition.
2. A dull, badly set, improperly filed or tensioned saw, or an inserted tooth saw with poorly fitting shanks or worn bits, must be removed from service.
3. A saw must be inspected for cracks and other defects each time the saw is sharpened, and a cracked saw must be removed from service until repaired by a qualified person.
4. A saw or saw collar damaged by excessive heat or undue stress must be removed from service until inspected and repaired by a qualified person.

## **Addendum 1**

### **OHS Clarification 2016/17**

#### **NEW HIRES**

All new employees are to be oriented by their foreman at the time of hire. A worker site orientation will be completed and submitted to head office. (see Appendix Forms)

#### **SUBCONTRACTORS**

All subcontractors are to be reviewed for compliance with WORKSAFEBC safety standards. The subcontractor must have a letter stating he is in compliance with his insurance premium obligation. (see Appendix Forms)

#### **FIRST AID ASSESSMENT**

At any worksite where there is no first aid provided by the general contractor a first aid assessment is required. (see Appendix Forms)

#### **FIRE SAFETY /EMERGENCY DRILL**

A fire drill is to be held at any site required. The signal, evacuation procedure and fire contact information are to be communicated. (see Appendix Forms)

#### **TOOL MAINTENANCE CONTROL PROGRAM**

Tools that fail and require repair or replacement are reported and/or turned over to the foreman. Thereafter the item is tagged and repaired or simply discarded. All workers are to be advised of this program at orientation.

#### **ACCIDENT / INCIDENT RECORDS**

All accidents and incidents are to be recoded in writing and filed. Form 7 (if required) to be filed with WORKSAFE and a copy retained in our files. (see Appendix Forms)

#### **RISK HAZARD ASSESSMENT**

The Risk Hazard Assessment has been modified to include worker fatigue, this is now policy.

#### **WORK SITE INSPECTIONS**

All sites are to be visited at the commencement of work and site specific procedures are to be drawn up. Any significant change in working conditions is cause for a return visit and a new site specific document. All active sites are to be visited a minimum of one (1) time per month. Record is to be kept.



## Addendum 2





### Disclaimer

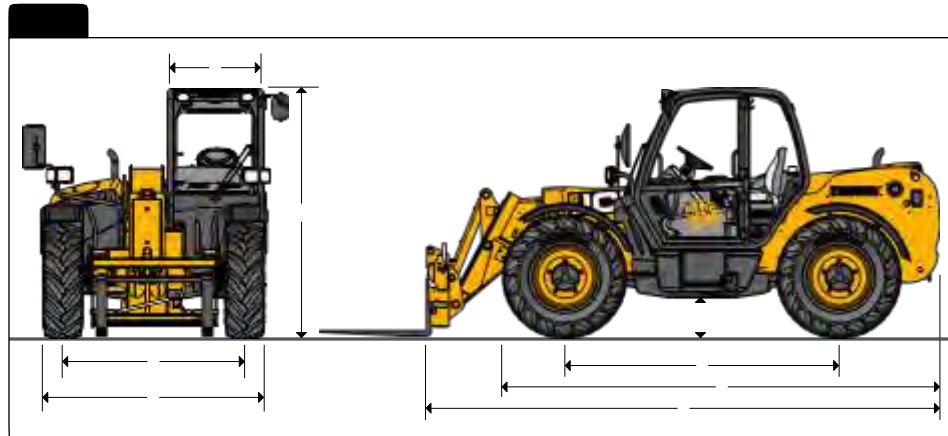
- > This Quick Reference Guide is to provide quick and simple information to the Operator and does not include any health and safety aspects. In addition, because of our continual development of machines, features described in this Quick Reference Guide may differ from those on your machine. No errors and emissions be entirely ruled out.
- > This Quick Reference Guide DOES NOT replace the Operators Manual. You MUST read ALL the disclaimers and safety and other instructions in the Operators Manual before initially operating this product. Accordingly, no legal claims can be entertained on the basis of the data, illustrations or descriptions in this Quick Reference Guide.
- > This machine should not be operated by any person who isn't appropriately qualified or had the appropriate training.
- > Operation of this machine without periodic maintenance could cause it to malfunction. For more information please contact your JCB Dealer.

## Intended Use

- > The machine is intended to be used in normal conditions for the applications described in the operator's manual.
- > With forks fitted, machine work cycle consists of loading, moving and unloading material.
- > If the machine is used for other applications or in dangerous environments, for example in a flammable atmosphere or in areas with dust containing asbestos, special safety regulations must be obeyed and the machine must be equipped for use in these environments.
- > Make sure you follow the instructions outlined in the operator's manual of the mounted or trailed machinery or trailer. Do not operate the combination tractor-machine or tractor-trailer unless all instructions have been followed.
- > Do not use the machine to move or handle logs unless sufficient log protection is installed. You could cause serious injury to yourself and damage to the machine. For more information, contact your JCB dealer.
- > A wide range of optional attachments are available to increase the versatility of your machine. Only the JCB approved attachments are recommended for use with your machine.  
Contact your JCB dealer for the full list of approved attachments available.



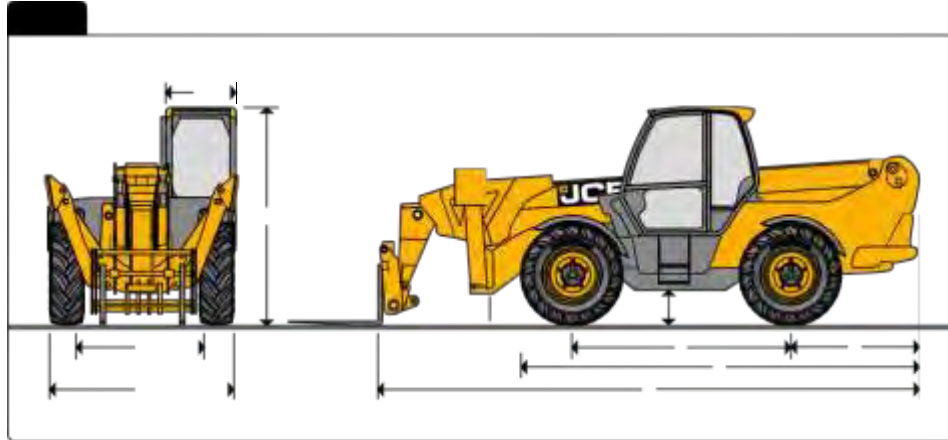
## OCCUPATIONAL HEALTH & SAFETY PROGRAM



| Machine model |                                       | 531-70 | 541-70 | 535-95 |
|---------------|---------------------------------------|--------|--------|--------|
| A             | Overall height                        | mm     | 2490   | 2,490  |
| B             | Overall width (over tyres)            | mm     | 2230   | 2,290  |
| C             | Inside width of cab (between windows) | mm     | 940    | 940    |
| D             | Front track                           | mm     | 1810   | 1,870  |
| E             | Wheelbase                             | mm     | 2750   | 2,750  |
| F             | Overall length to front tyres         | mm     | 4380   | 4,380  |
| G             | Overall length to front of carriage   | mm     | 4990   | 4,990  |
| H             | Ground clearance                      | mm     | 400    | 400    |
| K             | Centre of gravity (unladen)           | mm     | 1381   | 1,515  |
|               | Weight                                | kg     | 7825   | 8,800  |



## OCCUPATIONAL HEALTH & SAFETY PROGRAM



| Machine model |                                       |    | 533-105 | 535v 125 | 540-140 | 540v 140 | 540-170 | 540v 180 | 540-200 |
|---------------|---------------------------------------|----|---------|----------|---------|----------|---------|----------|---------|
| A             | Overall height                        | mm | 2,490   | 2,590    | 2,590   | 2,590    | 2,690   | 2,590    | 2,720   |
| B             | Overall width (over tyres)            | mm | 2,290   | 2,350    | 2,350   | 2,350    | 2,440   | 2,460    | 2,440   |
| C             | Inside width of cab (between windows) | mm | 940     | 940      | 940     | 940      | 940     | 940      | 940     |
| D             | Front track                           | mm | 1,870   | 1,900    | 1,900   | 1,900    | 1,900   | 1,900    | 1,970   |
| E             | Wheelbase                             | mm | 2,750   | 2,750    | 2,900   | 2,750    | 2,750   | 2,750    | 2,750   |
| F             | Overall length to front tyres         | mm | 4,380   | 4,740    | 5,180   | 4,740    | 5,080   | 4,720    | 5,090   |
| G             | Overall length to front of carriage   | mm | 5,380   | 5,800    | 6,250   | 6,230    | 6,360   | 6,305    | 6,810   |
| H             | Ground clearance                      | mm | 400     | 400      | 400     | 400      | 400     | 400      | 410     |
| K             | Centre of gravity (unladen)           | mm | 1,311   | 1390     | 1536    | 1511     | 1548    | 1526     | —       |
|               | Weight                                | kg | 8,868   | 10,058   | 10,779  | 11,370   | 12,301  | 11,375   | 13,252  |



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Tie Down Points

Fig 3

Front position anchor point -  
533-105, 535v125, 540v140, 540-140,  
540-170, 540-180, 540-200

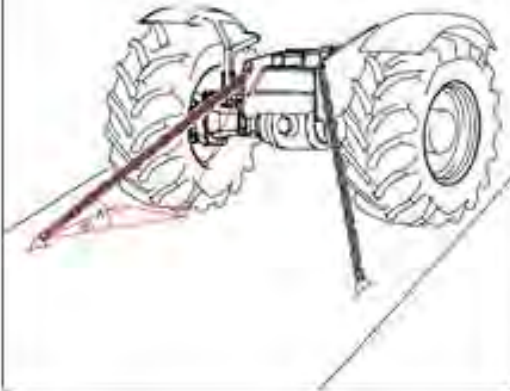


Fig 3

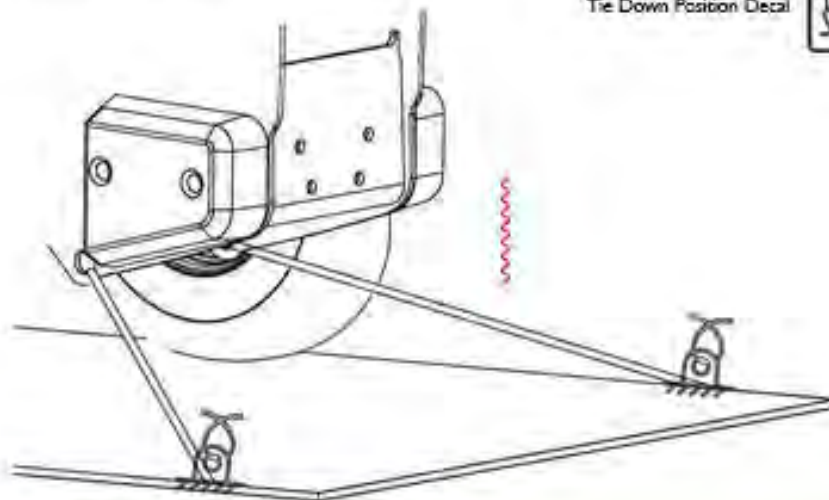
Front position anchor point -  
531-70, 541-70, 525-95



Fig 3

Rear position anchor point

Tie Down Position Decal

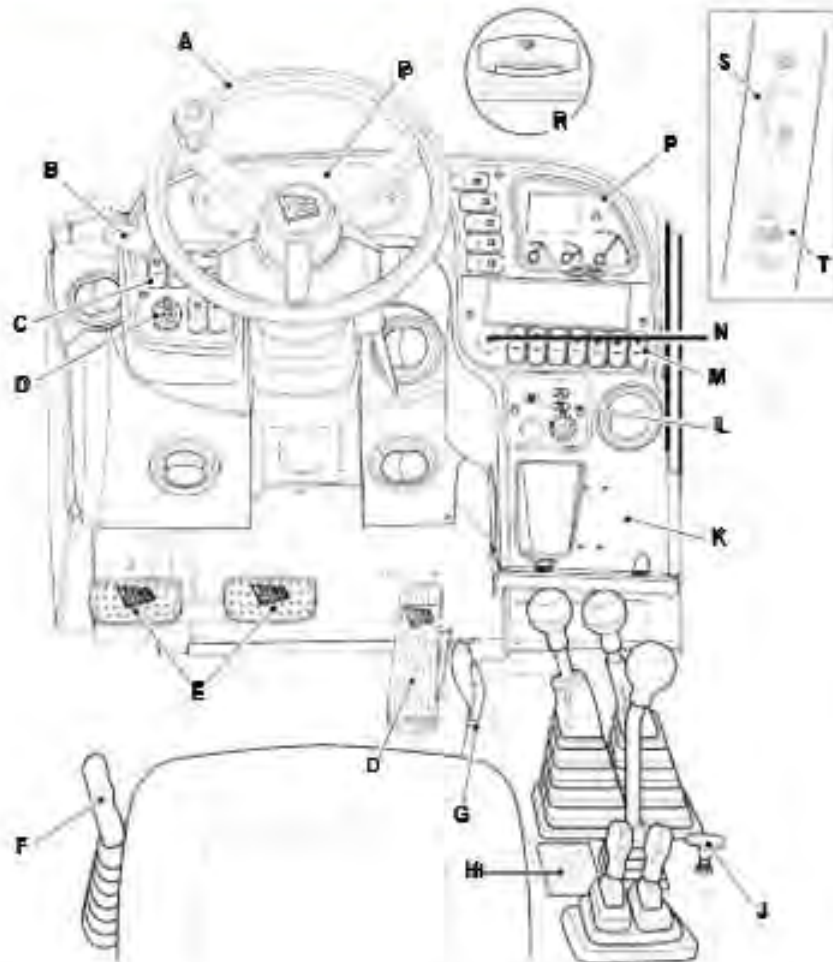


REFER TO OPERATORS MANUAL TRANSPORTING MACHINE



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Console switches

**Fig 4**

- A Steering
- B Transmission Lever and Gear
- C Console switches
- D Steer mode selector
- E Service brake pedal
- F Park brake lever
- G Control locks
- H Immobiliser Key Pad
- J Hydraulic tow hitch

- K Load charts
- L HVAC (Heating Ventilation Air Conditioning)
- M Console switches
- N Ignition switch
- P Instrument panel
- R Inclinator
- S LLMI (Longitudinal Load Moment Indicator)
- T Load control system
- U Accelerator Pedal

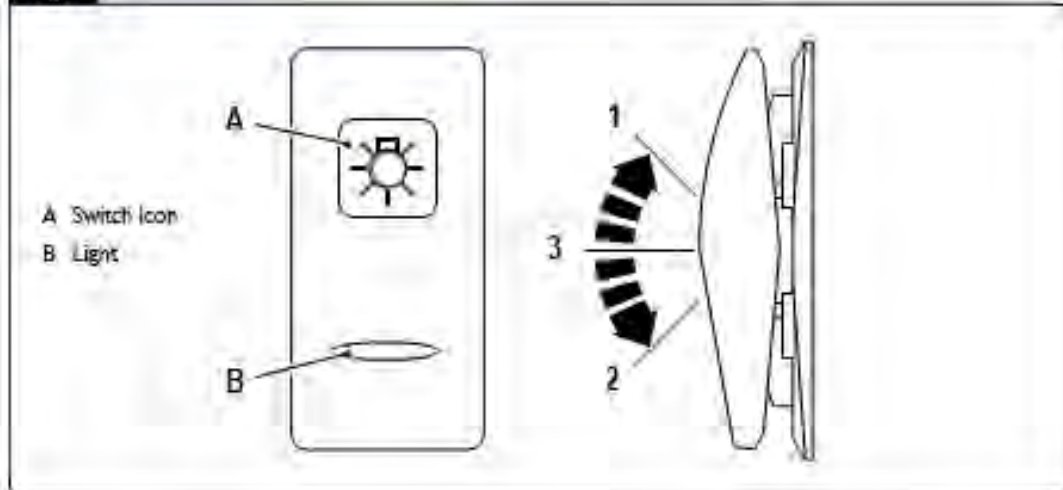




# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## Vehicle Warnings

**Fig 5**



### Road Lights

- 1 Off
- 3 Sidelights On (with sidelights on machine hours show on dash)
- 2 Headlights & Rear Tail Lights On (Ignition On)
- 2 Sidelights & Rear Tail Lights On (Ignition Off)



### Rear Fog Lights

- 1 Off
- 2 Rear Fog Light On



### Hazard Warning Lights

- 1 Off
- 2 On



### Work Lights

- 1 Off
- 3 Front work lights On
- 2 Front / rear / hitch work lights On



### Transmission Mode

- 1 Manual
- 2 Auto (Push then release)



### Transmission Disconnect

- 1 Off
- 3 On
- 2 Engage (push then release)



### Tilt Lock

- 1 Off (Backlight off)
- 2 Tilt Lock On (Backlight on)



### Heater

- 1 Fan speed down (spring-loaded)
- 3 Default Position
- 2 Fan speed up (spring-loaded)





## OCCUPATIONAL HEALTH & SAFETY PROGRAM

**Window Heater**

- 1 Heater rear/side windows Off
- 2 Heater rear/side windows On

**Inner Boom Extend/Retract (540-170 only)**

- 1 Inner boom extend/retract disabled
- 2 Inner boom extend/retract enabled

**Controls Isolation**

- 1 Off
- 2 On

**Stabiliser Isolation**

- 1 Off (Backlight off)
- 2 ~~Stabiliser~~ isolation On (Backlight On)

**Chassis Levelling**

- 1 Sway left –  
Push and hold the switch
- 3 Off
- 2 Sway right –  
Push and hold switch

**Hydraulic Function**

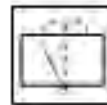
- 1 Enable the hydraulic function (turn to right)
- 2 Disable the hydraulic function (push)

**Hydraulic Auxiliary Venting**

- 1 Off
- 2 Service venting (ignition On, engine Off)

**Reverse Fan**

- 1 Off
- 3 Auto
- 2 Manual

**Rear Window Wiper**

- 1 Wiper Off
- 3 Wiper On
- 2 Washer On (push and hold)

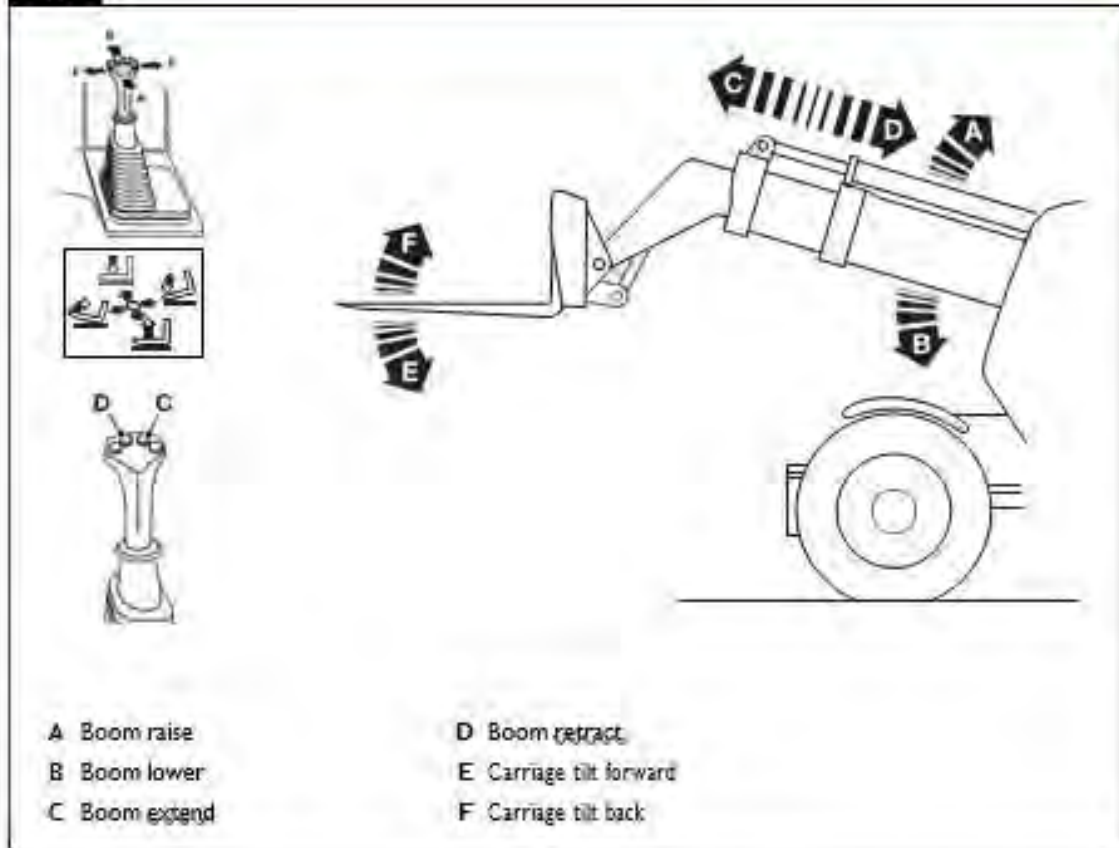
**Stabiliser Isolation**

- 1 Off (Backlight off)
- 2 ~~Stabiliser~~ isolation On (Backlight On)



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

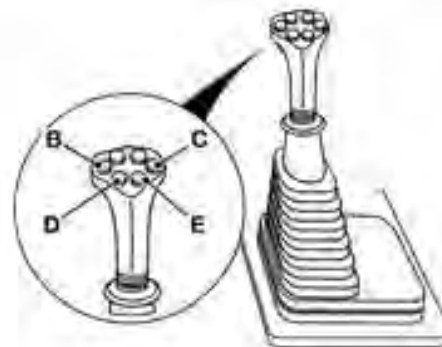
### Single Lever Manual Hydraulics Control

**Fig 6****Fig 7**

#### Auxiliary Control

B/C Operate AUX 1

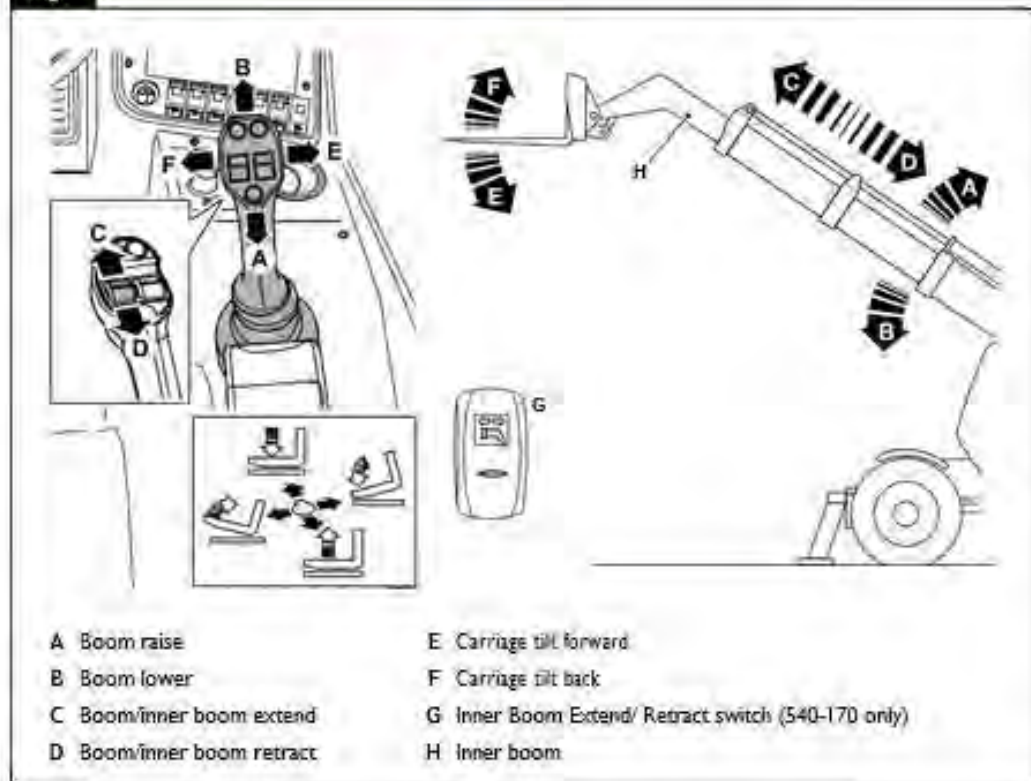
D/E Operate AUX 2





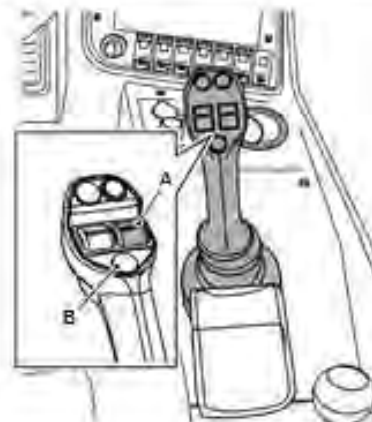
## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Single Lever Control

**Fig 8****Fig 9**

### Auxiliary Control

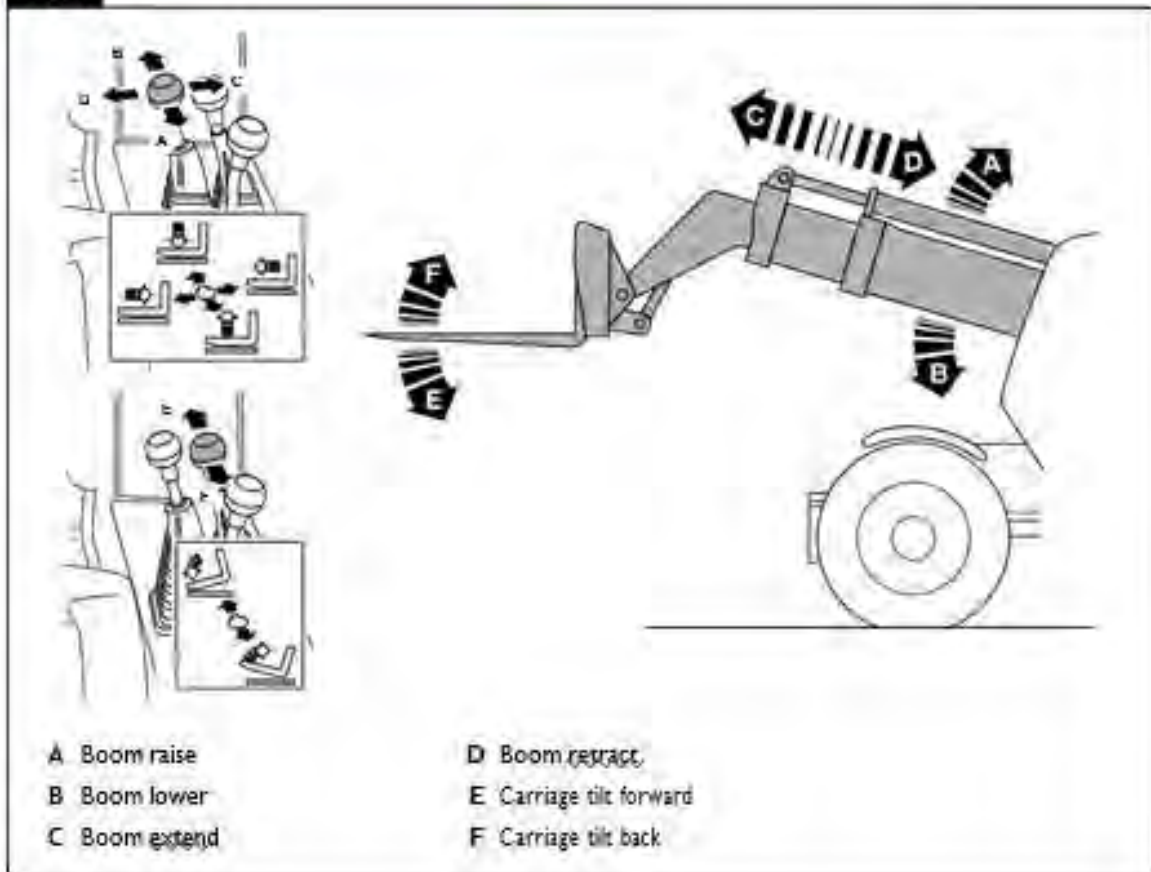
Roll the thumb switch forward / backward  
to use desired function





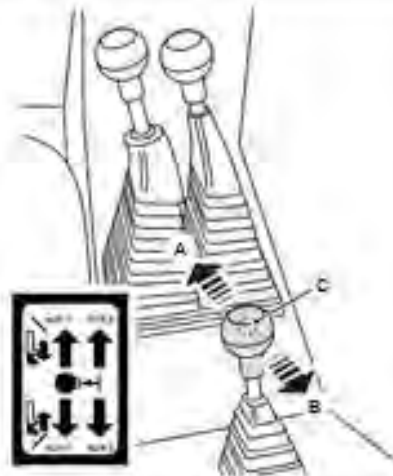
## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Dual Lever Control (Placing Pattern)

**Fig 10****Fig 11**

### Auxiliary Control

Move the control lever forward / backward  
to use desired function







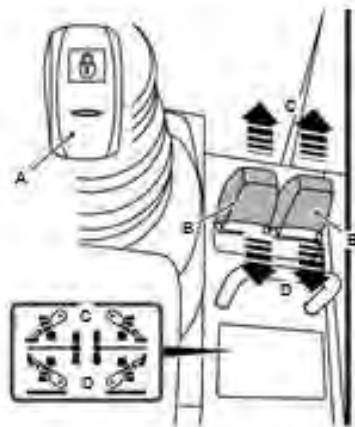
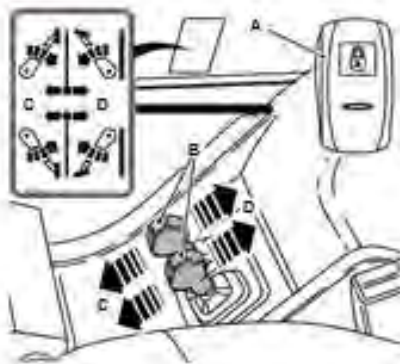
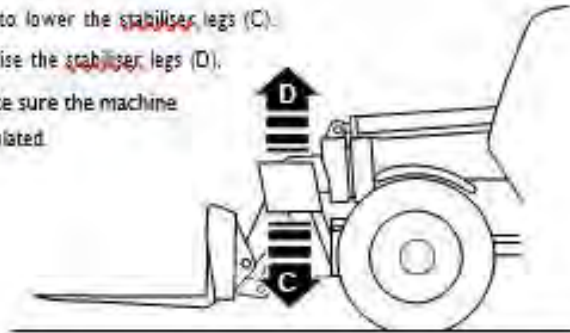
## Stabiliser & Sway Controls

### Lower and Raise Stabilisers\*

**Fig 12**

1. Park the machine on firm ground.
2. Turn off the stabiliser isolation switch (A).
3. Push the control levers (B) forward to lower the stabiliser legs (C).
4. Pull the control levers (B) back to raise the stabiliser legs (D).
5. Before you operate the boom, make sure the machine is level and stabiliser controls are isolated.

- A Stabiliser isolation switch
- B Stabiliser control levers
- C Stabiliser legs - lower
- D Stabiliser legs - raise

**Fig 13**

### Chassis Levelling (Sway) Operation

To operate push and hold the rocker switch to either side until the machine shows as level on the inclinometer.





## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Pedals & Controls

**1 Steering Wheel**

Turn in the direction you want to go.

**2 Steering Column**

Turn lever (A) in counter clockwise direction to release column and adjust as required. The lever position can also be adjuste.



A. Lever

**3 Accelerator Pedal**

Push down to increase engine speed. The engine will idle without any pressure.

**4 Service Brake Pedal**

Push down to slow or stop the machine.

**5 Park Brake**

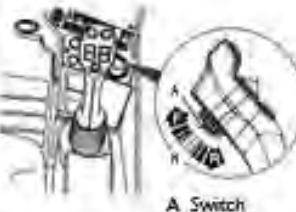
Use this lever to engage the park brake before leaving the machine.

**6 Transmission Drive Lever**

3 Position drive lever. To operate: Stop the machine, apply brake, let engine drop to idle. Select required direction, release brake and accelerate

**7 Drive Selection Switch**

Optional 3 position switch. Operate in the same manner as the lever.



A. Switch

**8 Gear Lever (Barrel Select)**

Rotate the barrel (A) so the arrow aligns with the required gear.

**9 Gear Changing (ECU)**

Selected gear is displayed on the main display and can be changed down with button B, and up with button A.

**10 Transmission Disconnect (Option)**

Switch allowing you to disconnect the transmission to improve hydraulic performance.





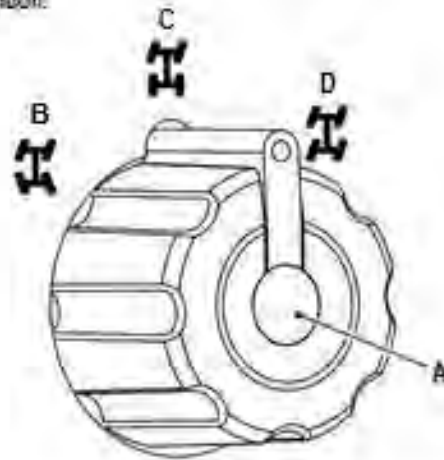


## Vehicle & Steer Modes

### Electronic Steer Mode Selector

**Fig 14**

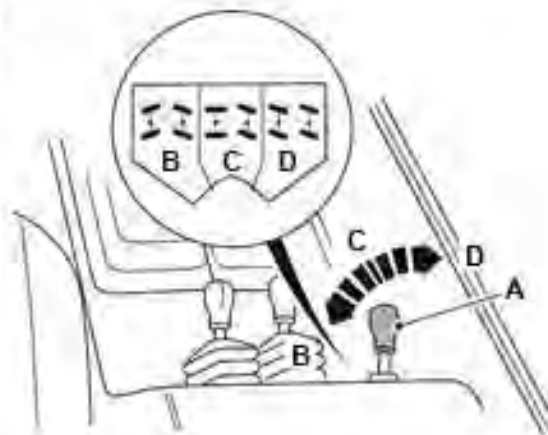
- 1 Stop the machine. Set the gear lever to the neutral position.
- 2 Use the switch (A) to select the steering mode:
  - B 4-wheel steer
  - C 2-wheel steer
  - D Crab steer
- 3 Operate the steering wheel until the wheels straighten up to re-phase the mode.



### Manual Steer Mode Selector

**Fig 15**

- 1 Stop the machine. Set the gear lever to the neutral position.
- 2 Use the switch (A) to select the steering mode:
  - B 4-wheel steer
  - C 2-wheel steer
  - D Crab steer
- 3 Operate the steering wheel until the wheels straighten up to re-phase the mode.





## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Start Up Sequence

#### 1 Insert Isolator Key (A)

Insert battery isolator key switch, push and turn 90 (degrees symbol)



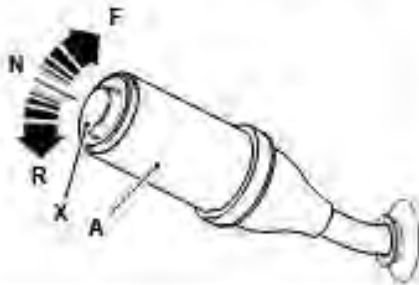
#### 2 Disarm the immobiliser

If installed, clear with MD then key in the code followed by enter.



#### 3 Set to Neutral

Put the forward / reverse lever into neutral.



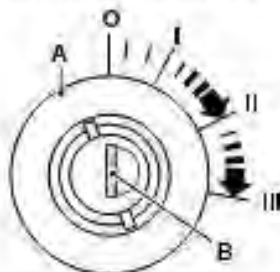
#### 4 Insert Key

Insert key into ignition switch (A)



#### 5 Start Machine

Turn the ignition key to the start position (position III) and hold it there until the engine starts.



#### 6 Operate Hydraulics

Operate the hydraulic services to make sure that each function is working correctly and to help warm up the hydraulic system.




## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Shutdown Sequence

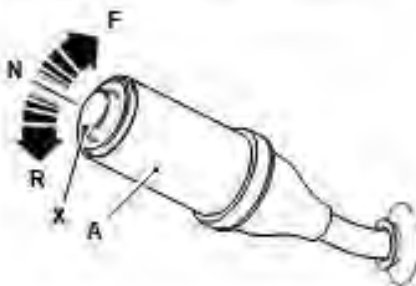
**1 Stop the Machine**  
Park on safe level ground.




**2 Apply the Park Brake**  
Lift up the lever (A) to apply the brake.



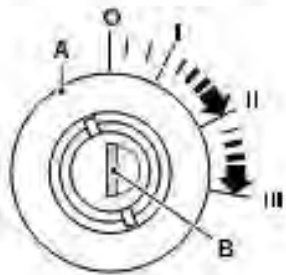
**3 Set to Neutral**  
Put the forward / reverse lever into neutral.



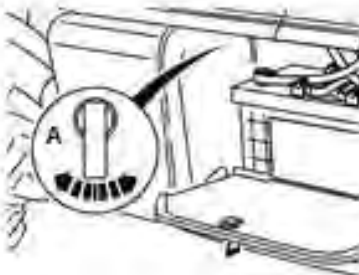
**4 Lower Boom**  
Retract and lower the boom, resting the forks flat on the ground.



**5 Key off**  
Turn off all switches. Remove the ignition key.



**6 Exit Machine**  
Exit the machine and remove the battery isolator key.





## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Connecting a Trailer

**1 Apply the Park Brake**

Adjust mirrors for a good view of tow hitch area.

**2 Align Trailer & Draw Bar**

Ensure Trailer and draw bars are correctly positioned for engagement (Tow bar parallel with machine).

**3 Approach Trailer**

Align the hitch with the trailer towing eye.

**4 Stop Machine**

Stop the machine. Apply the park brake.

**5 Engage Trailer**

Engage the trailer and secure with the pin (A).

**6 Connect Lights**

Connect the trailer lights into the socket (A). Ensure they are working and visible. Refer to operators manual for more detail.

**7 Connect Hoses**

Connect auxiliary hoses to the coupling (B).

**8 Select Rear Aux Circuit**

Set switch to position I. Operate the auxiliary for the desired application.

**9 Set Steering Mode**

Select 2-wheel steering for use on public roads. 2WD is also recommended.







## Maintenance Position

### Maintenance Position - Boom Lowered

**Fig 16**

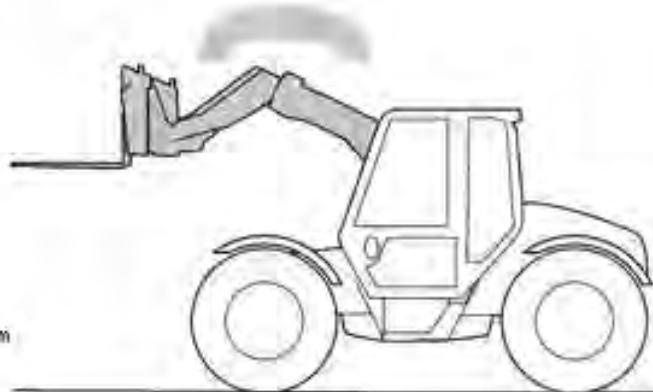
- Park the machine on safe level ground
- Lower the boom
- Put the attachment flat on the ground
- Apply the handbrake



### Maintenance Position - Boom Raised

**Fig 17**

- Make the machine safe
- Retract lift arm
- Raise lift arm
- Apply handbrake
- Stop engine and remove key
- Install jury strut on lift ram





## Service/Maintenance

| Daily Checks (10h)                                 | Check |
|--|-------|
| Engine Coolant Quality and Level Check             |       |
| Engine Oil Level Check                             |       |
| Transmission Oil Level Check                       |       |
| Wheel Nut Security Check                           |       |
| Tyre Pressures / Condition Check                   |       |
| Wheel Alignment Check                              |       |
| Brake System Fluid Level Check (Condition)         |       |
| Fire Extinguisher (if fitted) Check                |       |
| Wing Mirrors Condition and Security Check          |       |
| ROPS / FOPS Structure Check                        |       |
| Windscreen Washer Fluid Level Check                |       |
| SWL Stickers (UK) and Flip Chart Renew as required |       |





## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Service/Maintenance

| Weekly Checks (50h)   | Check |
|---|-------|
| Water Separator, Check for contamination and drain              |       |
| Axle Oil Level Check  |       |
| Axle Pivots and Linkages Grease                                 |       |
| Hydraulic Oil and Level Check                                   |       |
| Lift / Displacement / Tilt / Steer Cylinder Pivot Pins – Grease |       |
| Pivot Pins - Grease   |       |
| Carriage Lock Pins Grease                                       |       |
| Boom Chains Oil   |       |

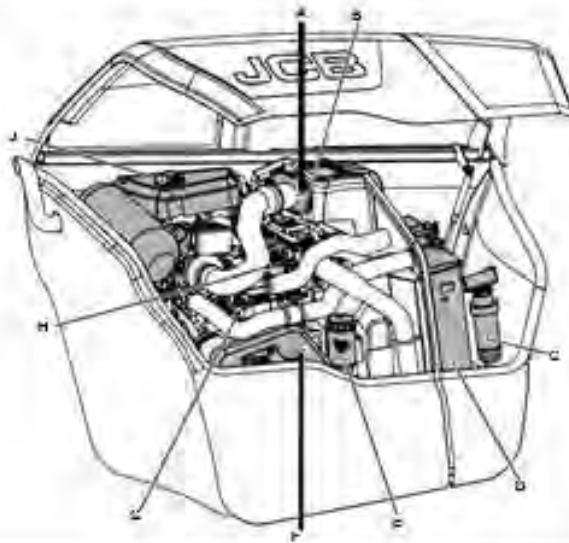


## Access Covers

### Engine Compartment

**Fig 18**

- A Air Filter
- B Transmission Oil Dipstick
- C Water Separator
- D Radiator
- E Engine Oil Filter
- F Drive Belt Guard
- G Engine Oil Dipstick
- H Engine Oil Filler Cap
- J Coolant Expansion Tank



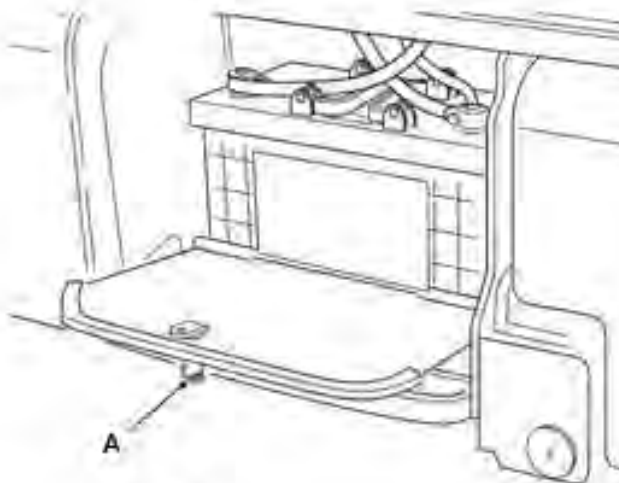
### Battery Cover

**Fig 19**

Make machine safe

Use the key or undo  
bolts to unlock cover (A)

Open cover



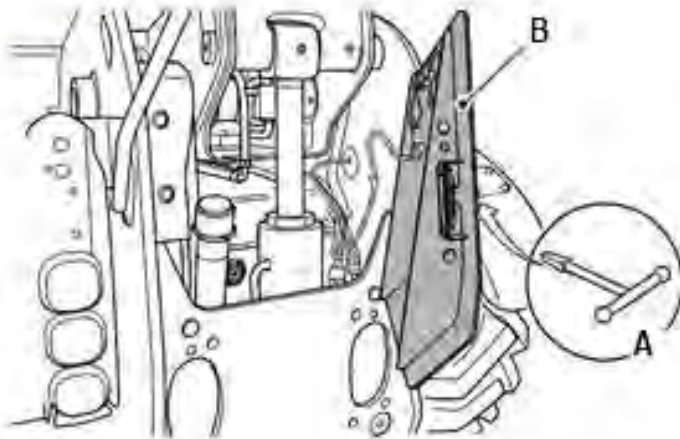


## Access Camera

### Rear Cover

**Fig 20**

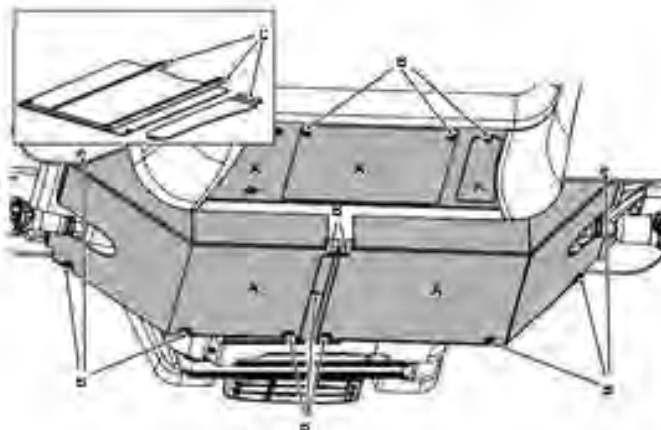
- 1 Make machine safe
- 2 Use the T-Bar (A) to unlock cover (B)
- 3 Open cover



### Undershield

**Fig 21**

- 1 Make machine safe
- 2 Working under the engine compartment, support each of the three under shields (A) and remove bolts (B)
- 3 Lower the under shields to the ground





# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## Fluids and Lubricants

| Item   | Capacity   | Fluid / Lubricant                                    | JCB Part Number                  |
|--|--|--|----------------------------------|
| Fuel Tank  | 146L   | Diesel Oil   | Ultra Low Sulphur Diesel (EN590) |
| DEF Tank (Where applicable)  | 13.5L  | DEF  | ISO 22241                        |
| Engine Oil   | 12.5-15L<br>(SJ & SL Engine)<br>11.5-14L (FL Engine) | JCB Engine Oil UP 5W30                               | 4001/3105                        |
|  |  | JCB Engine Oil 5W40 (USA)                            | 4001/3405                        |
|  |  | JCB Engine Oil 10W30                                 | 4001/3005                        |
| Engine Coolant   | 28L (SJ & SL Engine)<br>25.5L (FL Engine)            | JCB Antifreeze HP / Coolant + Water                  | 4006/1120                        |
| Transmission (81kW)  | Wet fill 11.5L<br>Dry fill 13.5L                     | JCB Transmission Fluid EP 10W30                      | 4000/2505                        |
| Transmission (55kW)  | Wet fill 17L<br>Dry fill 19L                         | Transmission Fluid EP 10W30                          | 4000/2505                        |
|  |  | JCB Transmission Fluid SAE30                         | 4000/2506                        |
| Transmission (93 & 106kW)  | Wet fill 21L<br>Dry fill 23L                         | JCB Transmission Fluid EP 10W30                      | 4000/2505                        |
|  |  | JCB Transmission Fluid SAE30                         | 4000/2506                        |
| Gearbox  |  | JCB Transmission Fluid EP 10W30                      | 4000/2505                        |
| Front axle housing   | 17.7L  | JCB Gear Oil HP Plus                                 | 4000/2205                        |
| Hubs   | 2L   |  |                                  |
| Rear axle housing<br>(531-70, 541-70,<br>535-95, 533-105)          | 10L  |  |                                  |
| Rear axle housing<br>(540-140, 170, 200)                           | 19L  |  |                                  |
| Rear axle housing<br>(535-125, 535-140)                            | 17.7L  |  |                                  |
| Brake System   |  | JCB Hydraulic Fluid HP 15                            | 4002/0503                        |
| Hydraulic Tank<br>(531-70, 541-70)                                 | 115L   | JCB Optimum Performance<br>Hydraulic Fluid 46 or 68  | 4002/2005 or<br>4002/2705        |
| Hydraulic Tank<br>(535-125, 535-140, 540-140,<br>540-180, 535V125) | 127L   |  |                                  |
| Hydraulic Tank<br>(535-95, 533-105)                                | 125L   |  |                                  |
| Hydraulic Tank<br>(540-140)  | 131L   |  |                                  |
| Hydraulic Tank<br>(540-170, 540-200)                               | 180L   |  |                                  |
| Grease points  | As required  | JCB Special HP Grease / JCB Special MPL<br>EP Grease | 40032                            |
| Wear pad runways   | As required  | JCB <del>Waxoyl</del>                                | 4004/0502                        |
| Boom Hoses   | As required  | JCB Special HP Grease                                | 4003/2017                        |
| Boom Chain<br>(Where Applicable)                                   | As required  | JCB Chain Lubricant                                  | 4004/0237A                       |

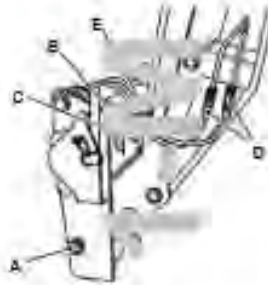


## OCCUPATIONAL HEALTH & SAFETY PROGRAM

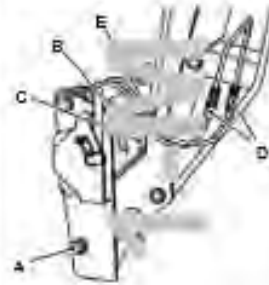
### Connecting Attachments

**1 Stop the Machine**

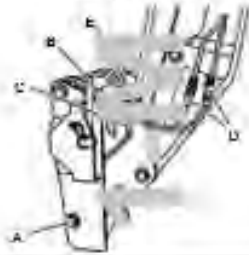
Park on dry level ground.

**2 Withdraw Carriage locking pin (A)****3 Align Carriage**

Align with the attachment, just below the hook plates (B).

**4 Engage Carriage Support Bar**

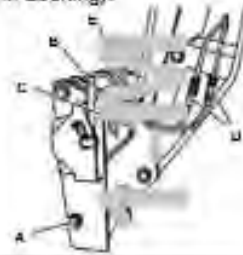
Move the boom to engage the carriage support bar into the hook plates (B) equally.

**5 Align Locking Holes**

Lift and tilt the carriage back, to align the locking holes. Lower the Attachment to the ground.

**6 Operate Lock Lever (C)**

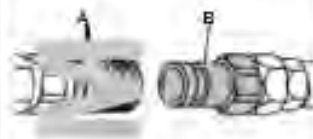
Engage locking pin or operate the auxiliary control to move the locking pins (Hydraulic Pin Locking).

**7 Prepare Hoses**

Vent hydraulic system, check and clean hoses and adaptors.

**8 Connect Hoses**

Connect the male coupling (B) into the female coupling (A).

**9 Attach Locking Pins**

Attach locking pins to secure attachment hydraulic hoses to the carriage.





## OCCUPATIONAL HEALTH & SAFETY PROGRAM

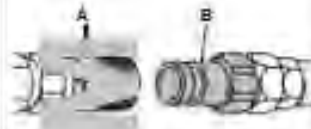
### Disconnecting Attachments

**1 Stop the Machine**

Park on dry level ground.  
Lower Attachment to  
the ground.

**2 Disconnect Hoses**

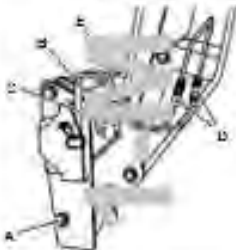
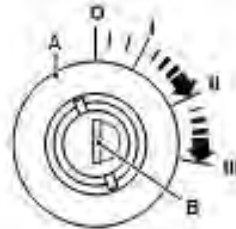
Vent hydraulic system. Align ball  
(C) with slot (D) and pull back  
sleeve (E).

**3 Remove Locking Pin**

Remove locking pins to release  
attachment hydraulic hoses  
from the carriage.

**4 Operate Lock Lever (C)**

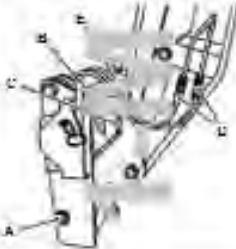
Unlock the locking pins (A) or  
operate the auxiliary control  
(Hydraulic Pin locking)

**5 Start Engine****6 Tilt Forward**

Tilt carriage forward to  
withdraw lower end of the  
carriage from the attachment.

**7 Withdraw Carriage**

Lower boom slowly to  
withdraw carriage from  
attachment hook plates (B).

**8 Reverse Away**

Reverse the machine away from  
the attachment.





## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### Machine Attachments

| Description         | Intended Use   | <del>Hydraulic</del> Requirements |
|---------------------|--|-----------------------------------|
| Side Shift Carriage | Allows fork positioning ready for load pick-up and side shift of load when placing           | Single Auxiliary                  |
| Fork Positioner     | Allows width of forks to be easily adjusted  | Single Auxiliary                  |
| Extension JIB       | Gives the machine greater reach and height, for handling suspended loads                     | None                              |
| Roof Truss JIB      | Gives the machine greater reach and height, for handling suspended loads with four positions | None                              |
| Fork Mounted Hook   | Allows the machine to carry slung loads with safety  | None                              |
| Shackle             | <del>Mounted</del> , it allows the machine to carry slung loads safely                       | None                              |
| Work Platforms      | Provide a safe way for workers to access inaccessible areas at height                        | Twin Auxiliary                    |
| Shovels             | General Purpose and specific shovels are available for a wide range of tasks                 | Model <del>Dependant</del>        |
| 680mm JIB           | Gives the machine greater reach and height, for handling suspended loads                     | None                              |



## **APPENDIX 1**

### **Masonry Walls**

#### **Contents**

- Procedure BC Masonry Institute
- Procedure WorksafeBC
- Empire Safe Work Procedure



## Procedure BC Masonry Institute

### Structural Design

Section 1.2.1

Page 1

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The majority of residential buildings in the world are built of masonry - although often to a low level of construction quality. For this reason, photo coverage of earthquake damage from distant villages frequently features piles of bricks or stones that were once homes. While these structures bear little resemblance to our modern reinforced masonry systems, they do illustrate the need for proper structural design.

The seismic experience with masonry in California has shown that modern engineered masonry has generally provided a high level of performance. While this is reassuring for our local region, their experience with old unreinforced masonry structures highlights the need for close attention to our own stock of similar buildings.



#### **LIMIT STATES DESIGN**

Modern masonry design is similar to limit states design methods for other materials, particularly concrete. CSA S304-04 Design of Masonry Structures is referenced by the 2005 National Building Code and the 2006 B.C. Building Code.

An updated CSA S304-14 standard has been issued by CSA, is referenced in the 2015 NBCC and will become effective when the new BC Building Code is issued, presumably in 2017.



## Structural Design

### Section 1.2.1

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The following three factors in CSA S304.1 differentiate masonry design from reinforced concrete design:

-  $f_m$

$f_m$  is the masonry compressive design strength. It is less than the masonry unit strength due to the effects of mortar bedding and interaction of the mortar and masonry unit.  $f_m$  is usually determined from the unit strength, as shown below in Table 1.2.1-1. For some projects, such as those utilizing large amounts of high strength units, the alternative method of testing masonry assemblies (prisms) is occasionally used.

-  $\Phi_m$

The  $\Phi_m$  resistance (safety) factor for masonry was increased from 0.55 to 0.60 in the 2004 edition.

-  $E_m$

The elastic modulus for masonry may be taken as  $E_m = 850 f_m$  (not greater than 20,000 MPa), or may be determined from testing. CSA S304.1 also provides methods for determining effective moments of inertia for deflection calculations.



**Block Testing**

| Value of $f_m$ for concrete block masonry                        |   |                  |
|--|---|------------------|
|  | Specified compressive strength normal to the bed joint, $f_m$ , for concrete block masonry, MPa |                  |
| Specified compressive strength of unit, MPa (average net area) * | Type S mortar   |                  |
|  | Hollow  | Solid or grouted |
| >40  | 22  | 17               |
| 30   | 17.5  | 13.5             |
| 20   | 13  | 10               |
| <b>15</b>  | <b>9.8</b>  | <b>7.5</b>       |
| 10   | 6.5   | 5                |

\*Linear interpolation is permitted.

Notes: - For grouted walls the area of grout may be ignored and the "Hollow"  $f_m$  value used with the face-shell bedded area. This will be advantageous for larger spacings of grouted cells.  
- Alternatively, for partially grouted walls a weighted value

Note that CSA S304.1 now clearly provides for the use of the higher "Hollow" value for  $f_m$  if the grout area is ignored.





## Structural Design

Section 1.2.1

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- between the "Hollow" and the "Solid or Grouted" may be used, based on the percentage of grouted cores.
- Type N mortar is seldom, if ever, used in structural masonry.

### REINFORCEMENT

Care should be taken to disperse the rebar throughout the wall, and to avoid congestion in vertical cores. The most common rebar size in reinforced masonry is 15M, followed by 20M. 25M's are occasionally used, but are difficult to handle and require long laps. Vertical bars are typically placed as one layer in the centre of the wall. Horizontal rebar is placed in bondbeam courses, often in pairs that act to centre the vertical steel. Horizontal joint reinforcing is fabricated in ladders of two 3.8mm (9 ga) galvanized wires and embedded in horizontal mortar bed joints at a spacing of 400 or 600mm.

**Dowels**

### MINIMUM SEISMIC REINFORCEMENT

CSA S304.1 (Clause 10.15.2) specifies minimum seismic reinforcement for loadbearing and non-loadbearing walls for a project with a specific seismic hazard index  $[IEF_s S_a(0.2)]$ . For most cases, the required reinforcement areas must be oriented a minimum of 1/3 in either direction. The larger amount of reinforcement will usually be used vertically.

Vertical steel spacing must not exceed  $6(t+10)$  mm or 1200 mm, whichever is less. The maximum spacing of horizontal reinforcement is:

- 400 mm where only joint reinforcement is used
- 1200 mm where only bond beams are used
- 2400 mm for bond beams, and 400 mm for joint reinforcement where both are used

In many cases, it will be found that this minimum seismic steel will also be adequate for flexural, shear or axial load resistance.



# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## Structural Design

Section 1.2.1

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Reinforced Block Structure

| SHI*                               | Area Required                                       | Typical Spec 200mm Wall   |
|------------------------------------|---|---|
| Loadbearing<br>SHI $\geq 0.35$     | Total 0.002 $A_g$<br>2/3 = 0.00133<br>1/3 = 0.00067 | Vertical: 15M @ 800mm (0.00132)<br>Horizontal: 2-15M @ 2400mm<br>+ Joint reinforcing @ 400mm (0.00117)  |
| Non-loadbearing<br>SHI $\geq 0.75$ | Total 0.001<br>2/3 = 0.00067<br>1/3 = 0.00033       | Vertical: 15M @ 1200mm (0.00088)<br>Horizontal: 1-15M @ 2400mm<br>+ Joint reinforcing @ 400mm (0.00073) |

\* SHI = Seismic Hazard Index  $IEF_s S_a(0.2)$ 

See reinforcement ratio table on page 5. See Guide Structural Notes in Section 3.3 for typical reinforcement for other wall thicknesses.

In addition to flexural, shear and minimum seismic steel, vertical reinforcing is required at each side of openings over 1200mm long, at each side of control joints, and at corners, ends and intersections of walls. *CSA S304.1-04* (Clause 4.6.1) allows unreinforced masonry partitions if they are less than 200 kg/m<sup>2</sup> in mass and 3 m in height, but only for seismic hazard indices < 0.75.

### SEISMIC DESIGN FOR DUCTILE SHEAR WALLS

The minimum seismic requirements described above for "Conventional" reinforced masonry will be all that is required for the vast majority of masonry buildings. However, the *B.C. Building Code 2006* (Table

The seismic provisions and ductility categories have been substantially updated in the new *CSA S304-14* standard. This standard has been referenced in the 2015 NBCC and will become effective when the new BC Building Code is issued, presumably in 2017. They will be reviewed in this manual as that time approaches.





## Structural Design

Section 1.2.1

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4.1.8.9) and CSA S304.1-04 Clause 10.16 contain additional provisions for a range of ductile shear wall categories beyond the conventional seismic requirements. They are based on the concept of ductility through inelastic behavior in a "plastic hinge" zone at the base of a cantilever shear wall. These detailing and design provisions ensure that the shear capacity exceeds the flexural capacity that is providing the ductile mechanism. They provide values of either 1.5 or 2.0 for  $R_d$ , the "ductility related force reduction factor," used in determining design loads.

The shear wall categories and their maximum building heights for the two higher seismic hazard indices from BCBC Table 4.1.8.9 are shown below:

|    |                        | Maximum Height |             |        |
|----|------------------------|----------------|-------------|--------|
|    |                        | $R_d$          | 0.35 - 0.75 | > 0.75 |
| 1. | Conventional           | 1.5            | 30 m        | 15 m   |
| 2. | Limited Ductility      | 1.5            | 40 m        | 30 m   |
| 3. | Moderately Ductile     | 2.0            | 60 m        | 40 m   |
| 4. | Moderately Duct. Squat | 2.0            | n/a         | n/a    |

For the cases beyond the Conventional ductility walls there are additional requirements for grouting, and reinforcing spacing and detailing. There are also limits on  $h/t$ , compressive strains, and shear resistance. For typical masonry walls designed in the Squat category with  $h_w/l_w < 1$ , there is an  $h/(t+10)$  limit, and requirements for uniform loading and reinforcement ratios.

An  $R_d$  of 2.0 for all materials is now required for post-disaster buildings. This can be provided by structural masonry by meeting the requirements of Clause 10.16. The requirements for typical squat masonry walls such as those used for fire halls are contained in Clause 10.16.6.

Large differences in the ductility of framing systems in orthogonal directions should be avoided.



Reinforcement



Reinforcement



# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## Structural Design

### Section 1.2.1

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**Wall Reinforcement Ratio  $P_d = A_s / A_g$** 

| Wire or Bar Size | Spacing S (mm) | Wall Thickness (mm) |         |         |         |
|------------------|----------------|---------------------|---------|---------|---------|
|                  |                | b=140               | b=190   | b=240   | b=290   |
| 2 – 9 ga.        | @ 1200         | 0.00013             | 0.00010 | 0.00008 | 0.00006 |
|                  | 800            | 0.00020             | 0.00015 | 0.00012 | 0.00010 |
|                  | 600            | 0.00027             | 0.00020 | 0.00015 | 0.00013 |
|                  | 400            | 0.00040             | 0.00029 | 0.00023 | 0.00019 |
|                  | 200            | 0.00080             | 0.00059 | 0.00046 | 0.00038 |
| 2 – 8 ga.        | @ 1200         | 0.00016             | 0.00012 | 0.00009 | 0.00008 |
|                  | 800            | 0.00024             | 0.00018 | 0.00014 | 0.00011 |
|                  | 600            | 0.00032             | 0.00023 | 0.00018 | 0.00015 |
|                  | 400            | 0.00048             | 0.00035 | 0.00028 | 0.00023 |
|                  | 200            | 0.00095             | 0.00070 | 0.00055 | 0.00046 |
| #10              | @ 1200         | 0.00060             | 0.00044 | 0.00035 | 0.00029 |
|                  | 800            | 0.00089             | 0.00066 | 0.00052 | 0.00043 |
|                  | 600            | 0.00119             | 0.00088 | 0.00069 | 0.00057 |
|                  | 400            | 0.00179             | 0.00132 | 0.00104 | 0.00086 |
|                  | 200            | 0.00357             | 0.00263 | 0.00208 | 0.00172 |
| #15              | @ 1200         | 0.00119             | 0.00088 | 0.00069 | 0.00057 |
|                  | 800            | 0.00179             | 0.00132 | 0.00104 | 0.00086 |
|                  | 600            | 0.00238             | 0.00175 | 0.00139 | 0.00115 |
|                  | 400            | 0.00357             | 0.00263 | 0.00208 | 0.00172 |
|                  | 200            | 0.00714             | 0.00526 | 0.00417 | 0.00345 |
| #20              | @ 1200         | 0.00179             | 0.00132 | 0.00104 | 0.00086 |
|                  | 800            | 0.00268             | 0.00197 | 0.00156 | 0.00129 |
|                  | 600            | 0.00357             | 0.00263 | 0.00208 | 0.00172 |
|                  | 400            | 0.00536             | 0.00395 | 0.00301 | 0.00259 |
|                  | 200            | 0.01071             | 0.00789 | 0.00625 | 0.00517 |
| #25              | @ 1200         | 0.00298             | 0.00219 | 0.00174 | 0.00144 |
|                  | 800            | 0.00446             | 0.00329 | 0.00260 | 0.00216 |
|                  | 600            | 0.00595             | 0.00439 | 0.00347 | 0.00287 |
|                  | 400            | 0.00893             | 0.00658 | 0.00521 | 0.00431 |
|                  | 200            | 0.01786             | 0.01316 | 0.01042 | 0.00862 |
| #30              | @ 1200         | 0.00417             | 0.00307 | 0.00243 | 0.00201 |
|                  | 800            | 0.00625             | 0.00461 | 0.00365 | 0.00302 |
|                  | 600            | 0.00833             | 0.00614 | 0.00486 | 0.00402 |
|                  | 400            | 0.01250             | 0.00921 | 0.00729 | 0.00603 |
|                  | 200            | 0.02500             | 0.01842 | 0.01458 | 0.01207 |

This table provides wall reinforcement ratios for various rebar spacings and wall thicknesses.





# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## Structural Design

### Section 1.2.1

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OCTOBER 2016

#### PHYSICAL PROPERTIES OF CONCRETE BLOCK WALLS

Structural Properties of Concrete Masonry Walls  
 (per metre or foot length)

| Grouted Cells / metre<br>Cell/Dowel Spacing (mm)         | 0.00<br>none  | 0.83<br>1200   | 1.00<br>1000   | 1.25<br>800    | 1.67<br>600    | 2.50<br>400    | 0.00<br>200    |
|--|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Nominal Size</b>                                      | <b>150 mm</b> |                |                |                |                |                |                |
| <b>6 inch</b>  |               |                |                |                |                |                |                |
| $A_e$ ( $\text{mm}^2 \times 10^3$ )<br>( $\text{in}^2$ ) | 52.0<br>24.6  | 66.7<br>31.5   | 69.6<br>32.9   | 74.0<br>35.0   | 81.3<br>38.4   | 96.0<br>45.4   | 140.0<br>66.2  |
| $I_x$ ( $\text{mm}^4 \times 10^6$ )<br>( $\text{in}^4$ ) | 172<br>126    | 181<br>133     | 183<br>134     | 186<br>136     | 191<br>140     | 201<br>147     | 229<br>168     |
| $S_x$ ( $\text{mm}^3 \times 10^6$ )<br>( $\text{in}^3$ ) | 2.46<br>45.8  | 2.59<br>48.2   | 2.62<br>48.7   | 2.66<br>49.5   | 2.73<br>50.7   | 2.87<br>53.3   | 3.27<br>60.8   |
| Weight ( $\text{kN/m}^2$ )<br>(psf)                      | 1.90<br>39.6  | 2.09<br>43.7   | 2.13<br>44.6   | 2.19<br>45.8   | 2.29<br>47.9   | 2.49<br>52.0   | 3.08<br>64.3   |
| <b>Nominal Size</b>                                      | <b>200 mm</b> |                |                |                |                |                |                |
| <b>8 inch</b>  |               |                |                |                |                |                |                |
| $A_e$ ( $\text{mm}^2 \times 10^3$ )<br>( $\text{in}^2$ ) | 74.5<br>35.6  | 94.5<br>44.6   | 98.3<br>46.5   | 104.0<br>49.2  | 113.6<br>53.7  | 132.7<br>62.7  | 190.0<br>89.8  |
| $I_x$ ( $\text{mm}^4 \times 10^6$ )<br>( $\text{in}^4$ ) | 442<br>324    | 464<br>340     | 468<br>343     | 475<br>347     | 485<br>355     | 507<br>371     | 572<br>419     |
| $S_x$ ( $\text{mm}^3 \times 10^6$ )<br>( $\text{in}^3$ ) | 4.66<br>86.7  | 4.88<br>90.9   | 4.93<br>91.7   | 5.00<br>93.0   | 5.11<br>95.0   | 5.34<br>99.3   | 6.02<br>112.0  |
| Weight ( $\text{kN/m}^2$ )<br>(psf)                      | 2.46<br>51.4  | 2.75<br>57.4   | 2.81<br>58.6   | 2.89<br>60.4   | 3.03<br>63.4   | 3.32<br>69.4   | 4.18<br>87.3   |
| <b>Nominal Size</b>                                      | <b>250 mm</b> |                |                |                |                |                |                |
| <b>10 inch</b>   |               |                |                |                |                |                |                |
| $A_e$ ( $\text{mm}^2 \times 10^3$ )<br>( $\text{in}^2$ ) | 81.7<br>38.6  | 108.1<br>51.1  | 113.4<br>53.6  | 121.3<br>57.3  | 134.5<br>63.5  | 160.9<br>76.0  | 240.0<br>113.4 |
| $I_x$ ( $\text{mm}^4 \times 10^6$ )<br>( $\text{in}^4$ ) | 816<br>598    | 872<br>638     | 883<br>647     | 900<br>659     | 928<br>679     | 984<br>721     | 1152<br>844    |
| $S_x$ ( $\text{mm}^3 \times 10^6$ )<br>( $\text{in}^3$ ) | 6.80<br>126.5 | 7.27<br>135.2  | 7.36<br>136.9  | 7.50<br>139.5  | 7.73<br>142.6  | 8.20<br>152.5  | 9.60<br>178.6  |
| Weight ( $\text{kN/m}^2$ )<br>(psf)                      | 2.97<br>62.0  | 3.35<br>70.0   | 3.43<br>71.7   | 3.55<br>74.1   | 3.74<br>78.1   | 4.12<br>86.1   | 5.28<br>110.3  |
| <b>Nominal Size</b>                                      | <b>300 mm</b> |                |                |                |                |                |                |
| <b>12 inch</b>   |               |                |                |                |                |                |                |
| $A_e$ ( $\text{mm}^2 \times 10^3$ )<br>( $\text{in}^2$ ) | 88.3<br>41.7  | 121.9<br>57.6  | 128.6<br>60.8  | 138.7<br>65.5  | 155.5<br>73.5  | 189.2<br>89.4  | 290.0<br>137.0 |
| $I_x$ ( $\text{mm}^4 \times 10^6$ )<br>( $\text{in}^4$ ) | 1341<br>982   | 1456<br>1066   | 1479<br>1083   | 1514<br>1108   | 1571<br>1150   | 1687<br>1235   | 2032<br>1488   |
| $S_x$ ( $\text{mm}^3 \times 10^6$ )<br>( $\text{in}^3$ ) | 9.25<br>172.1 | 10.04<br>186.8 | 10.20<br>189.7 | 10.44<br>194.1 | 10.83<br>201.5 | 11.63<br>216.3 | 14.01<br>260.6 |
| Weight ( $\text{kN/m}^2$ )<br>(psf)                      | 3.53<br>73.7  | 4.00<br>83.6   | 4.10<br>85.6   | 4.24<br>88.6   | 4.48<br>93.6   | 4.95<br>103.5  | 6.38<br>133.3  |

Note: Assume bond beams at 2.4m (8 ft) OC.  
 Table based on metric blocks and modules (190mm high units).  
 Assumed weight: 22 kN/m<sup>2</sup> 140.4 pcf

**Procedure WorksafeBC****WorkSafe Bulletin****Ensuring adequate support for concrete block masonry walls during construction**

Not long after work had finished for the day on a building construction site, a concrete block masonry wall at the edge of the building collapsed outward onto two adjacent properties. The wall was non-load bearing and more than 15 metres (50 feet) high. Except at the wall base, no temporary or permanent supports had been installed to laterally brace the wall, so the wall had very low resistance to lateral loads such as wind. There were no injuries, but one neighbouring building was destroyed, and two others were badly damaged. This bulletin explains the potential hazards of masonry walls and discusses ways to reduce the risk of a collapse.

Concrete block masonry walls are common on construction sites throughout B.C. Masonry is often selected for walls that require a high level of fire resistance, sound isolation, or durability.

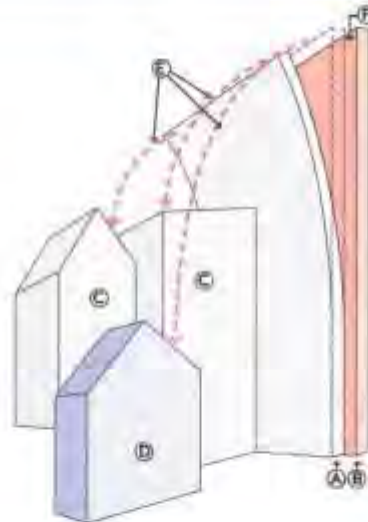
The engineering drawings for a building typically detail how masonry walls are to be permanently supported by the other components of the building structure. However, these engineering drawings don't usually address how masonry walls are to be supported during construction.

Contractors must ensure that masonry walls are supported adequately during construction, particularly when it comes to lateral stability. During construction, lateral support of a masonry wall is typically achieved by one or both of the following:

- Installing permanent supports as wall construction progresses
- Restraining the wall with temporary braces

**What is the hazard?**

If sufficient lateral support of a masonry wall is not maintained during construction, the wall could collapse catastrophically due to its low resistance to lateral loads such as wind. A collapse of this type



The masonry wall collapse incident

- (A) Non-load-bearing masonry wall of new building
- (B) Structural wall of new building
- (C) Buildings damaged by falling masonry
- (D) Building destroyed by falling masonry
- (E) Paths of falling masonry blocks during wall collapse
- (F) No lateral supports installed between masonry wall and structural wall





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could result in serious injuries or fatalities, as well as damage to adjacent structures or equipment.

Lateral stability is a concern for all masonry walls. Types of masonry walls that are particularly at risk of lateral instability during construction include:

- Load-bearing walls (i.e., walls that vertically support floor or roof members) with large distances between points of lateral support. The walls of gymnasiums, warehouses, and similar structures sometimes fit into this category.
- Non-load-bearing walls (i.e., walls that do not vertically support floor or roof members) that are multiple storeys tall. Examples include firewalls at the perimeters of new buildings. The masonry wall described at the start of this bulletin was this type of wall.

### How to prevent masonry wall collapses

#### Masonry contractors

Develop safe work procedures that specify how masonry walls will be supported during construction. This may require written instructions from a professional engineer and input from the prime contractor. These procedures should answer questions such as the following:

- Who will install the permanent supports from the masonry wall to the building structure? Best practice is to document who is responsible for the permanent supports.
- When and where will the permanent supports be installed?
- Are the permanent supports adequate for the forces imposed during construction?
- Is temporary bracing of the masonry wall required?
- If temporary bracing is required, what does it consist of? When will it be installed? Who will install it? At what point can it be removed?
- What is the maximum height of masonry wall that can be built above a line of temporary bracing and/or permanent supports?

Ensure workers are trained in the safe work procedures and effectively supervised.

Ensure regular inspections are conducted to confirm that temporary bracing and permanent supports for masonry walls are installed as required.

#### Owners and prime contractors

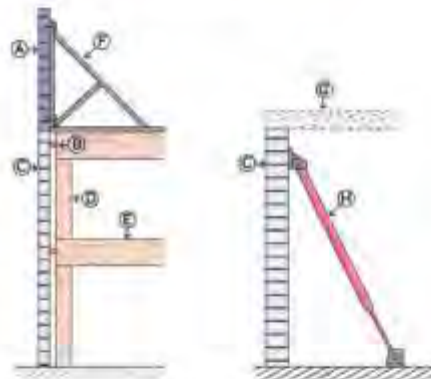
Ensure safe work procedures are in place specifying how masonry walls will be supported.

Coordinate work activities, especially the installation of temporary bracing and permanent supports, to prevent the development of unsafe conditions.

Ensure regular inspections are conducted to confirm that supports are installed as required.

#### Regulation requirements

- [Section 29.14, Temporary support](#)
- [Section 4.7, Safe buildings and structures](#)
- [Section 2.5, General requirement](#) (for workplace inspections)



Lateral supports for non-load-bearing (left) and load-bearing (right) masonry walls during construction

- (A) Section of the masonry wall built after installation of the top permanent lateral support
- (B) Permanent lateral support for the masonry wall
- (C) Masonry wall
- (D) Wall structure
- (E) Floor structure
- (F) Temporary brace (may not be required if the wall above the top permanent support is laterally stable on its own)
- (G) Floor or roof structure yet to be installed
- (H) Temporary brace



### Empire Safe Work Procedure

Free standing concrete walls require special procedures to insure they do not collapse in inclement weather

- Weather forecasts are available from environment Canada on the internet. If a storm or heavy rain is predicted do not build at that time.
- When using premix mortar ensure it is thick enough to dry quickly. This can be achieved by adding bagged mortar mix.
- Work to full height add all rebar required Expedite pouring concrete in the block (grouting).
- When completed notify General Contractor to direct carpentry to brace wall.
- Follow all other provisions of the EMPIRE safety policy and OHS Manual.





## APPENDIX 2

### FORMS

- 1 mast climbing platform (hydro mobile) sign off
- 2 hydro mobile daily checklist
- 3 frame scaffold checklist
- 4 worker orientation (new hire)
- 5 subcontractor sign off
- 6 first aid assessment
- 7 accident report form (2 pages)
- 8 emergency drill



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| INSTALLATION HANDOVER SHEET   |  |               |  |  |   |   |   |  |  |
|---|--|---------------|--|--|---|---|---|--|--|
| Project Name: _____   |  |               |  |  | Date: _____   |   |   |  |  |
| Series used for project   |  |               |  |  |   |   |   |  |  |
| <b>GAS-POWERED</b><br><b>F</b> F300 <input type="checkbox"/> <b>P</b> <input type="checkbox"/><br><b>M</b> 34' (7.3 m) <input type="checkbox"/><br><b>S</b> 14' (4.3 m) <input type="checkbox"/>  |  |               | <b>TRANSPORT PLATFORM</b><br><b>F</b> GAS-POWERED <input type="checkbox"/><br><b>S</b> 240V <input type="checkbox"/><br><b>S</b> 480V <input type="checkbox"/> |  |   | <b>ELECTRIC-POWERED</b><br><b>E</b> 240V <input type="checkbox"/> <b>P</b> Power pack <input type="checkbox"/><br><b>F</b> 480V <input type="checkbox"/> <b>P</b> Power pack <input type="checkbox"/><br><b>F</b> F300 - 480V <input type="checkbox"/> <b>M</b> 480V <input type="checkbox"/><br><b>F</b> F300 - 480V <input type="checkbox"/> <b>M</b> 600V <input type="checkbox"/><br><b>F</b> F300 - 600V <input type="checkbox"/> <b>S</b> 240V <input type="checkbox"/><br><b>F</b> F300 - 600V <input type="checkbox"/> <b>S</b> 480V <input type="checkbox"/> |   |  |  |
| Number of units: _____  |  |               |  |  | Serial numbers: _____   |   |   |  |  |
| <b>Details of installation</b> Single unit <input type="checkbox"/> Multiple units (bearing bridge) <input type="checkbox"/> Freestanding <input type="checkbox"/> With mast ties <input type="checkbox"/>  |  |               |  |  |   |   |   |  |  |
| <b>Cantilever bridges</b>   |  | <b>Length</b> | <b>Composition</b>   |  | <b>No. planks</b>   | <b>Counterweight</b>  |   |  |  |
| Left cantilever   |  |               | FT   |  |   | LB  |   |  |  |
|   |  |               | M  |  |   | WG  |   |  |  |
| Right cantilever  |  |               | FT   |  |   | LB  |   |  |  |
|   |  |               | M  |  |   | WG  |   |  |  |
| <b>Bearing bridge(s)</b>  |  | <b>Length</b> | <b>Composition</b>   |  | <b>No. planks</b>   |   |   |  |  |
| Bridge 1  |  |               | FT   |  |   |   |   |  |  |
|   |  |               | M  |  |   |   |   |  |  |
| Bridge 2  |  |               | FT   |  |   |   |   |  |  |
|   |  |               | M  |  |   |   |   |  |  |
| <b>Length of corner returns</b>   |  |               |  |  |   |   |   |  |  |
| Left  |  |               | FT   | <input type="checkbox"/>                             | <input type="checkbox"/>  | <input type="checkbox"/>  | (Circle O for Outriggers, M for MPI or S for Swivel Bridge) |  |  |
|   |  |               | M  |  |   |   |   |  |  |
| Right   |  |               | FT   | <input type="checkbox"/>                             | <input type="checkbox"/>  | <input type="checkbox"/>  | (Circle O for Outriggers, M for MPI or S for Swivel Bridge) |  |  |
|   |  |               | M  |  |   |   |   |  |  |
| Load capacities must be compliant with Owner's manual <input type="checkbox"/>  |  |               |  |  | Load capacities must be compliant with approved layout <input type="checkbox"/>   |   |   |  |  |
| <b>Method of installation</b>   |  |               |  |  |   |   |   |  |  |
| <b>Progressive installation</b> <input type="checkbox"/><br><small>It setup will be installed progressively, skip ties and anchors information section</small>  |  |               |  |  | <b>Complete installation</b> <input type="checkbox"/><br><small>Mast ties must be installed to the top of the installation before the start of any work</small> |   |   |  |  |
| <b>Ties and anchors</b>   |  |               |  |  |   |   |   |  |  |
| <b>Maximum height</b>   |  |               | FT   | <b>Anchor type</b>                                   |   | <b>Shelf angle</b>  |   |  |  |
|   |  |               | M  |  |   |   |   |  |  |
| <b>Height of first tie level</b>  |  |               | FT   | <b>Mechanical expansion</b> <input type="checkbox"/> |   | <b>Welded</b> <input type="checkbox"/>  |   |  |  |
|   |  |               | M  |  |   |   |   |  |  |
| <b>Distance between tie levels</b>  |  |               | FT   | <b>Mechanical screw</b> <input type="checkbox"/>     |   | <b>Grilled</b> <input type="checkbox"/>   |   |  |  |
|   |  |               | M  |  |   |   |   |  |  |
| <b>Number of mast sections above last tie level</b>   |  |               |  | <b>Chemical / resin</b> <input type="checkbox"/>     |   | <b>Brick anchor</b> <input type="checkbox"/>  |   |  |  |
| <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>WARNING</b></p> <p>To ensure safety at all times on a mast climbing work platform system, bridges should not be loaded beyond their maximum rated weight capacities. In addition, to prevent a mast climbing work platform system from stalling because of an overload, maximum rated load capacities of the motorized unit(s) should be observed. Overloading a mast climbing work platform system could result in serious injury or death.</p> <p>It is mandatory to refer to the load capacity charts located on the motorized unit and included in the owner's manual at all times.</p> </div> <div style="width: 45%;"> <p><b>NOTE</b></p> <p>All assembly and operation instructions located on motorized units and bridges take precedence over information contained in this manual. Should there be any discrepancies discovered in respect to any published documentation issued by Hydro Mobile or its subsidiaries/affiliates, the following order of precedence shall prevail:</p> <ol style="list-style-type: none"> <li>1. Written documents issued by the Hydro Mobile Engineering department</li> <li>2. Recall instructions</li> <li>3. Assembly or operation instructions displayed on the motorized unit</li> <li>4. Owner's manual</li> </ol> <p>Any use of one or several Hydro Mobile motorized units, with or without accessories, in such a configuration or manner as not explicitly described in this manual is not allowed without the permission of Hydro Mobile Inc.</p> </div> </div> |  |               |  |  |   |   |   |  |  |
| <p>This motorized unit installation has been assembled following Hydro Mobile's instructions and complies with applicable local regulations. The motorized unit(s) and its (their) accessories have been submitted to all steps included in the daily inspection checklist recommended for Hydro Mobile motorized units and their accessories. The installation has been tested and handed over in a fully functional, safe condition. This installation cannot be re-configured in any way without the owner's permission.</p>   |  |               |  |  |   |   |   |  |  |
| Installer signature _____   |  |               | Installer name (IN PRINT) _____  |  |   | Installation completed on (mm/dd/yyyy) _____  |   |  |  |
| Owner/user signature _____  |  |               | Owner/user name (IN PRINT) _____   |  |   |   |   |  |  |



# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## HYDRO - MOBILE DAILY CHECK LIST

| <b>Start Date:</b>    |   |       |   |   |   |   |   |   |
|-----------------------|---|-------|---|---|---|---|---|---|
| <b>Location:</b>      |   |       |   |   |   |   |   |   |
| <b>Check done by:</b> |   |       |   |   |   |   |   |   |
| Task                  |   | CHECK |   |   |   |   |   |   |
|                       |   | M     | T | W | T | F | S | S |
| 1                     | Check level of base and towers.   |       |   |   |   |   |   |   |
| 2                     | Correct if necessary <b>Note: It is usually easier to lower one leg of motorized unit than it is to raise (on model with screw jack.)</b> |       |   |   |   |   |   |   |
| 3                     | For model with adjustable jack make sure that the pin of drop part is securely engaged.   |       |   |   |   |   |   |   |
| 4                     | Check gasoline level.   |       |   |   |   |   |   |   |
| 5                     | Clean off excess mortar from unit and accessories.  |       |   |   |   |   |   |   |
| 6                     | Make sure no mortar or broken masonry is infringing operation of guide rollers, cylinders, hooks and springs. Clean as required.          |       |   |   |   |   |   |   |
| 7                     | Make sure safety hook springs are in good condition and check hook for binding.   |       |   |   |   |   |   |   |
| 8                     | At first operation, make sure cylinders and cylinder hooks move freely about their retaining pins.  |       |   |   |   |   |   |   |
| 9                     | Make sure auxiliary hook is engaged and can move freely.  |       |   |   |   |   |   |   |
| 10                    | Check engine oil level. (Refer to Honda owner's manual)   |       |   |   |   |   |   |   |

**Note:** Units are provided with oil alert, which should normally prevent engine from starting if oil level is low.

**Caution:** Auxiliary safety hook should always be latched during normal operation.



# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## SCAFFOLDING CHECKLIST

Start Date: \_\_\_\_\_

Project: \_\_\_\_\_

Location: \_\_\_\_\_

|    | SCAFFOLD CHECKLIST                                  | CHECK |   |   |   |   |   |   |
|----|---|-------|---|---|---|---|---|---|
|    |   | M     | T | W | T | F | S | S |
| 1. | Access/Egress is kept in a safe manner.             |       |   |   |   |   |   |   |
| 2. | No defective equipment is being used.               |       |   |   |   |   |   |   |
| 3. | Are all J-pins in?                                  |       |   |   |   |   |   |   |
| 4. | Are all braces in?                                  |       |   |   |   |   |   |   |
| 5. | Are working areas correctly planked in?             |       |   |   |   |   |   |   |
| 6. | Are guard rails in place?                           |       |   |   |   |   |   |   |
| 7. | Is the scaffold properly tied back to the building? |       |   |   |   |   |   |   |
| 8. | Are all screw jacks in at the base?                 |       |   |   |   |   |   |   |
| 9. | Is the scaffold plumb and level?                    |       |   |   |   |   |   |   |

\_\_\_\_\_  
SUPERVISOR'S SIGNATURE\_\_\_\_\_  
COMPANY



**EMPIRE MASONRY LTD.**

Multi-Residential - Commercial Buildings

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**WORKER SITE ORIENTATION (BY EMPLOYER)**

Project: \_\_\_\_\_ Address: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name: \_\_\_\_\_ Employer: \_\_\_\_\_ Trade: \_\_\_\_\_  
 Years Experience: \_\_\_\_\_ Address: \_\_\_\_\_ Phone Number: \_\_\_\_\_  
 Emergency Contact Name: \_\_\_\_\_ Relationship: \_\_\_\_\_ Phone Number: \_\_\_\_\_  
 Who conducted the orientation: \_\_\_\_\_ Position: \_\_\_\_\_

**All workers must complete this form prior to starting any work on any of our sites. You must meet all company safety requirements, and comply with all WorkSafeBC requirements while working on this site. You must review each section in this orientation and initial next to the applicable box on the orientation form below. By initialing each topic and signing this form you are indicating that you have reviewed the information contained in this orientation and the WorkSafeBC Regulation and the rules, regulations and guidelines of any governing bodies which may regulate our work on this site.**

| 1 Do you understand the Company's policy on:                      |        | 3 Employee's Responsibilities for Safety   |        |
|---|--------|--|--------|
| Disciplinary Action   |        | Site Safety Rules  |        |
| Alcohol & Drugs, horseplay, fighting, harassment                  |        | Excavation / Working near heavy equipment  |        |
| Defective Equipment   |        | Rebar Protection   |        |
| Smoking   |        | Ladder use / work platforms / Access & Egress  |        |
| Storage   |        | Fall protection / Guardrails / Control Zones   |        |
| Accident Reporting & Investigation                                |        | Floor Openings   |        |
| Safety Meetings/crew talks  |        | Electrical Safety / Proximity to Powerlines  |        |
| Hearing Protection Requirement                                    |        | Lifting Materials by Hand  |        |
| Promptly reporting all accidents, incidents and injuries          |        | Exposure to Silica Dust  |        |
| 2 Personal Protective Equipment                                   |        | 4 General Site Safety Rules  |        |
| Hard Hat (certified)  |        | Reporting Unsafe Acts/Conditions/Equipment   |        |
| Safety Boots (certified)  |        | MSDS location  |        |
| Clothing (long pants, shirt with 6" sleeves)                      |        | Red & Yellow Caution Tape & Signs  |        |
| Safety Glasses, contact lenses                                    |        | Public Interaction Rules   |        |
| Hearing Protection  |        | Blood Borne Pathogens  |        |
| Respiratory Protection  |        |  |        |
| Gloves  |        |  |        |
| Reflective Vests  |        |  |        |
| 5 Do You:   |        |  |        |
| Have a valid First Aid Certification? Level _____                 | Y or N | Understand that you have the right and responsibility to refuse unsafe work?               | Y or N |
| Know how to use a fire extinguisher?                              |        | Know how, when and to whom to report all injuries?   |        |
| Understand that working safely is a Condition of Employment?      |        | Have any medical/physical conditions that we need to be aware of? If yes please note below |        |
| Have WHMIS training?  |        | Date of Last Hearing Test?   |        |
| Acknowledge that you understand the Safety Policy of the Company? |        |  |        |

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

EMPLOYEE SIGNATURE: \_\_\_\_\_

SUPERVISOR NAME &amp; SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

FORM-0088

Empire Masonry Ltd.

# **EMPIRE MASONRY LTD.**

Mult-Residential - Commercial Buildings

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V3A 3X8

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Fax 604-539-9956



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

### SUBCONTRACTOR SIGN OFF FORM    dated \_\_\_\_\_

Does the undersigned \_\_\_\_\_ have a WORKSAFEBC  
compliant OHS Policy?

yes

no

If no the undersigned formally adopts the Empire Masonry Ltd OHS Policy.

The undersigned affirms compliance with WORKSAFEBC insurance premium  
requirements and will provide documentation of such before work commences.

Signature below indicates compliance with the above

\_\_\_\_\_ tel: \_\_\_\_\_

\_\_\_\_\_

EMPIRE MASONRY LTD.





# OCCUPATIONAL HEALTH & SAFETY PROGRAM

**EMPIRE MASONRY LTD.****First Aid Assessment Worksheet**

1. Name of workplace: \_\_\_\_\_

*Conduct a separate assessment for each identified workplace (see flow chart Step 1).*

|   |  |
|---|--|
| 2. (a) Hazard rating on Assigned Hazard Rating List                         | <input type="checkbox"/> L <input type="checkbox"/> M <input type="checkbox"/> H                                     |
| (b) Job functions, work processes and tools:                                | Typical of industry?<br><input type="checkbox"/> Yes <input type="checkbox"/> No                                     |
| (c) Types of injuries that can potentially occur:                           | Typical of industry?<br><input type="checkbox"/> Yes <input type="checkbox"/> No                                     |
| (d) Rating adjustment: if hazard rating is adjusted, provide documentation: | Overall workplace hazard rating:<br><input type="checkbox"/> L <input type="checkbox"/> M <input type="checkbox"/> H |
| 3. (a) Surface travel time to hospital:                                     | <input type="checkbox"/> greater than 20 minutes<br><input type="checkbox"/> 20 minutes or less                      |
| 4. (b) Total number of workers per shift:                                   | (include dispatched workers and workers in lodgings)   |
| 5. (f) Barriers to first aid:   |  |

| Assessment Results   |       |
|--|-------|
| <i>(different shifts may require different first aid services)</i> |       |
| 5. (a) Supplies/equipment/facilities required                      | _____ |
| 5. (c) Number and level of first aid attendants                    | _____ |
| 5. (e) Transportation needs  | _____ |

Date: \_\_\_\_\_ Change in Business Operations: \_\_\_\_\_

Consulted (health and safety committee, worker representative, others): \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

OCCUPATIONAL HEALTH & SAFETY  
PROGRAM

## ACCIDENT INVESTIGATION REPORT

|  |              |   |
|--|--------------|---|
| Identification of occurrence:  |              |   |
| Date and time occurred:  |              | Date and time reported:   |
| Project where occurred:  |              |   |
| Project complete address:  |              |   |
| Exact location on project:   |              |   |
| Project Supervisor:  |              | Contact #:  |
| Injured Worker(s):   |              | Contact #:  |
| Category: <input type="checkbox"/> Near Miss <input type="checkbox"/> First Aid <input type="checkbox"/> Medical <input type="checkbox"/> Lost Time - # of days: ____<br><input type="checkbox"/> Fatal <input type="checkbox"/> Minor Damage <input type="checkbox"/> Severe Damage <input type="checkbox"/> No Lost Time |              |   |
| First aid treatment given (if applicable):   |              | Report Included:<br><input type="checkbox"/> Y <input type="checkbox"/> N |
| First aid attendant:   | Employed by: | Tel #:  |
| Please complete section below if employee has been seen by, or intends to see a doctor:  |              |   |
| Doctor Name:   |              | Date of Visit:  |
| Address:   |              | Tel #:  |
| Property/equipment damage incurred and cost (please indicate whether actual or estimate):  |              |   |
| Job being performed at time of occurrence:   |              |   |
| Is there a written safe work procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No<br>If yes, was it followed: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable  |              |   |
| Others involved and their employees:   |              |   |
| Injured Worker Status: (Pls. check) Returned to Work: Yes ____ No ____<br>If Yes, nature of modified duties: _____<br>If Not Is a Doctor's Note submitted? Yes ____ No ____ (Pls. attach Doctor's note to this report)<br>Other Comments: _____  |              |   |



# OCCUPATIONAL HEALTH & SAFETY PROGRAM

**ACCIDENT INVESTIGATION REPORT**

Describe events that preceded the occurrence (attach photos, or extra sheets, as necessary):

Describe the factors that were the most direct cause of the occurrence:

Describe corrective actions to be taken/by whom/date to be implemented:

Investigator: \_\_\_\_\_

Date Investigation commenced: \_\_\_\_\_

Signature: \_\_\_\_\_

Date Investigation completed: \_\_\_\_\_

Management Review and Comments:

Management Representative:

Management Signature:

Date:

# OCCUPATIONAL HEALTH & SAFETY PROGRAM

# EMERGENCY DRILL REPORTING FORM

|   |  |   |
|---|--|---|
| Person Completing Form and Title:   |  | Date:   |
| Time Alarm Sounded:   | Time Drill Concluded:  | Time to Evacuate: (fire evacuation drills only):  |
| Type of Drill:  | Notification / Alarm Method:   | Weather Conditions:   |
| <input type="checkbox"/> Fire / Evacuation<br><input type="checkbox"/> Earthquake<br><input type="checkbox"/> Medical Emergency<br><input type="checkbox"/> Weather Emergency<br><input type="checkbox"/> Other _____ | <input type="checkbox"/> Horn<br><input type="checkbox"/> Mobile phone / radios<br><input type="checkbox"/> Other: _____ | <input type="checkbox"/> Clear<br><input type="checkbox"/> Cloudy<br><input type="checkbox"/> Raining<br><input type="checkbox"/> Rain and wind<br><input type="checkbox"/> Windy<br><input type="checkbox"/> Snow / Sleet<br><input type="checkbox"/> Hail |
| Participants: (check all that apply)  |  | Situation at Start of Drill   |
| <input type="checkbox"/> Management/Supervisors<br><input type="checkbox"/> Employees/Staff   |  | <input type="checkbox"/> Before Business Hours<br><input type="checkbox"/> During Business Hours<br><input type="checkbox"/> Lunch/Break Time<br><input type="checkbox"/> After Business Hours<br><input type="checkbox"/> Other: _____                     |
| Problems Encountered: (check all that apply)  |  |   |
| <input type="checkbox"/> Congestion in access/egress areas<br><input type="checkbox"/> Alarm not heard<br><input type="checkbox"/> Employees unsure of what to do   |  | <input type="checkbox"/> Radio communication problems<br><input type="checkbox"/> Weather-related problems<br><input type="checkbox"/> Personnel not accounted for  |
| Corrective Actions  |  |   |

Name \_\_\_\_\_

Signature \_\_\_\_\_





# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## Employer Incident Investigation Report (EIRIR)

Please refer to the companion [quick guide](#) for assistance completing the investigation and this form.

### 1. Employer's information

|   |                                  |                           |
|---|----------------------------------|---------------------------|
| Employer's name (legal name and trade name) | Operating location number        | WorkSafeBC account number |
| Employer's head office address              |                                  |                           |
| City  | Province                         | Postal code               |
| Employer's representative's name            | Phone number (include area code) |                           |
| Email address                               |                                  |                           |

### 2. Injured persons

| Last name | First name | Job title |
|-----------|------------|-----------|
| a)        |            |           |
| b)        |            |           |
| c)        |            |           |
| d)        |            |           |

### 3. Place, date, and time of incident

|  |                  |  |
|--|------------------|--|
| Location where incident occurred (street address or GPS coordinates) |                  |  |
| City (nearest)   | Province         | Postal code  |
| Date of incident (yyyy-mm-dd)  | Time of incident | <input type="checkbox"/> a.m.<br><input type="checkbox"/> p.m. |

### 4. Type of occurrence (select all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> Death of a worker                         | <input type="checkbox"/> Dangerous incident involving explosives other than blasting incident   |
| <input type="checkbox"/> Serious injury to a worker                | <input type="checkbox"/> Diving incident, as defined by regulation                              |
| <input type="checkbox"/> Major structural failure or collapse      | <input type="checkbox"/> Incident of fire or explosion with potential for serious injury        |
| <input type="checkbox"/> Major release of hazardous substance      | <input type="checkbox"/> Minor injury or no injury but had potential for causing serious injury |
| <input type="checkbox"/> Blasting accident causing personal injury | <input type="checkbox"/> Injury requiring medical treatment beyond first aid                    |

An incident investigation report is NOT required under the *Workers Compensation Act* if none of the above applies or if this incident is a vehicle accident occurring on a public street or highway.

### 5. Report type (select all that apply) If this is a revised version of a previous report, please check here ☐.

|   |   |   |  |
|---|---|---|--|
| <input type="checkbox"/> Preliminary Investigation Report<br>If requested only, provide a copy to WorkSafeBC. | <input type="checkbox"/> Incident Collection Report | <input type="checkbox"/> Full Investigation Report<br><b>Must be provided to WorkSafeBC within 30 days*</b><br>Fax 1.866.240.1434 | <input type="checkbox"/> Full Corrective Action Report |
| Report date (yyyy-mm-dd)  | Report date (yyyy-mm-dd)                            | Report date (yyyy-mm-dd)  | Report date (yyyy-mm-dd)                               |



# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## Employer Incident Investigation Report (EIRR)

Employer's name (legal name and trade name)

Operating location number

WorkSafeBC account number

Officer's name

Date sent (yyyy-mm-dd)

### 6. Witnesses

Last name

First name

Job title

a)

b)

c)

### 7. Other persons whose presence might be necessary for proper investigation

Last name

First name

Job title

a)

b)

### 8. Sequence of events that preceded the incident

Required in Preliminary Report. Update in Full Report if necessary. Describe events earlier that day or even in previous years that led up to the incident. Examples may include events such as training given or changes in equipment, procedures, or company management.

### 9. Unsafe conditions, acts, or procedures that significantly contributed to the incident

Required in all reports. Describe anything, or the absence of anything, that contributed to the hazard such as poor housekeeping or poor visibility, using equipment without guards, or the lack of safe work procedures.

### 10. Nature of the serious injury (optional – complete only if there has been an injury)

☐ Life threatening or resulting in loss of consciousness☐ Major broken bones in head, spine, pelvis, arms, or legs☐ Major crush injuries☐ Major cut with severe bleeding☐ Amputation of arm, leg, or large part of hand or foot☐ Major penetrating injuries to eye, head, or body☐ Severe (third-degree) burns☐ Punctured lung or other serious respiratory condition☐ Injury to internal organ or internal bleeding☐ Injury likely to result in loss of sight, hearing, or touch☐ Injury requiring CPR or other critical intervention☐ Diving illness such as decompression sickness or near drowning☐ Serious chemical or heat/cold stress exposure☐ Other (specify)

### 11. Brief description of the incident

Required in Preliminary Report. Briefly, summarize the sequence of events, the unsafe factors, and the resulting injury, if any.

### 12. Corrective actions identified and taken to prevent recurrence of similar incidents

Action

Required in Preliminary Report and Subsequent Corrective Action Report  
(update in Full Report, if necessary)

Action assigned to

(name and job title)

Expected

completion date

(yyyy-mm-dd)

Completed date

(yyyy-mm-dd)





# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## Employer Incident Investigation Report (EIIR)

Employer's name (legal name and trade name) Operating location number WorkSafeBC account number

| Action<br><small>(Required in Preliminary Report and Section 5 of the Full Investigation Report)</small> | Action assigned to<br><small>(Name and job title)</small> | Expected completion date<br><small>(YYYY-MM-DD)</small> | Completed date<br><small>(YYYY-MM-DD)</small> |
|--|---|---|---|
| a)   |   |   |   |
| b)   |   |   |   |
| c)   |   |   |   |
| d)   |   |   |   |
| e)   |   |   |   |

### 13. Explanation of blank areas on this Preliminary Report, if any

If there are blank areas, describe the circumstances beyond your control that explain this lack of information.

### 14. Persons who carried out or participated in the preliminary investigation

| Representative          | Name | Job title | Signature<br><small>(YYYY-MM-DD)</small> | Date signed<br><small>(YYYY-MM-DD)</small> |
|-------------------------|------|-----------|--|--|
| Employer representative |      |           |  |  |
| Worker representative   |      |           |  |  |
| Other                   |      |           |  |  |
| Other                   |      |           |  |  |

### End of report

Completing all the sections above satisfies the requirements for a Preliminary Investigation Report and an Interim Corrective Action Report.

**Note:** If this was a simple investigation and **all needed corrective actions have been completed within 48 hours**, the Preliminary and Full Investigation portions of the report can be completed at the same time. If so, you can check both the Preliminary Investigation Report and the Full Investigation Report boxes in section 5 on page 1.

As of January 1, 2016, copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

### 15. Determination of causes of incident

Required in Full Report. Analyze the facts and circumstances of the incident to identify underlying factors that led to the incident. Underlying factors include factors that made the unsafe conditions, acts, or procedures in the Preliminary Report possible. Update items from section 9, if needed.

### 16. Full description of the incident

Required in Full Report. Use the brief description from the Preliminary Report and update it, if necessary.



# OCCUPATIONAL HEALTH & SAFETY PROGRAM

## Employer Incident Investigation Report (EIRR)

Employer's name (legal name and trade name)

Operating location number

WorkSafeBC account number

### 17. Additional corrective actions necessary to prevent recurrence of similar incidents

| Additional corrective action<br><small>(Required in Full Report and Full Corrective Action Report.)</small> | Action assigned to<br><small>(Name and job title)</small> | Expected<br>completion date<br><small>(YYYY-MM-DD)</small> | Completed date<br><small>(YYYY-MM-DD)</small> |
|---|---|--|---|
| a)  |   |  |   |
| b)  |   |  |   |
| c)  |   |  |   |
| d)  |   |  |   |

### 18. Persons who carried out or participated in the full investigation

| Representative          | Name | Job title | Signature<br><small>(Print name)</small> | Date signed<br><small>(YYYY-MM-DD)</small> |
|-------------------------|------|-----------|--|--|
| Employer representative |      |           |  |  |
| Worker representative   |      |           |  |  |
| Other                   |      |           |  |  |

### 19. Other relevant workplace parties

| Company name | Contact person | Contact number or email address |
|--------------|----------------|---------------------------------|
| a)           |                |                                 |

### End of report

Completing all the sections above satisfies the requirements for a Full Investigation Report and a Full Corrective Action Report.

Employers are required to submit **full** investigation reports to WorkSafeBC **within 30 days\* of the incident**. Reports may be submitted by fax to 604.276.3247 (Greater Vancouver), toll-free fax 1.866.240.1434, or by mail to PO Box 5350, Stn Terminal, Vancouver BC V6B 5L5. Do **NOT** submit a preliminary report unless you have been so directed by a WorkSafeBC officer.

\* Employers can request an extension from a WorkSafeBC officer, **if the full investigation cannot be completed within 30 days**.

As of January 1, 2016, copies of **all** reports must also be provided to the joint occupational health and safety committee or worker representative, as applicable.

# EMPIRE MASONRY LTD.

Multi-Residential - Commercial Buildings

19781-56th Ave.  
LANGLEY, B.C.  
V3A 3X8

Phone 604-539-9955  
Fax 604-539-9956



## OCCUPATIONAL HEALTH & SAFETY PROGRAM

| WORK AREA INSPECTION REPORT (ROUTINE)  |   |  |                    |   |
|--|---|--|--------------------|---|
| Project:   |   | Date:  | Time on site:      | <input type="checkbox"/> AM <input type="checkbox"/> PM |
| Last inspection:   |   |  | Time off site:     | <input type="checkbox"/> AM <input type="checkbox"/> PM |
| Supervisor:  |   | Contact:   |                    |   |
| Weather conditions:  |   | Number of workers:   |                    |   |
| Current scope of work:   |   |  |                    |   |
| <b>1. General Safety</b>   |   |  |                    |   |
| <input type="checkbox"/> Housekeeping  | <input type="checkbox"/> Signage                          | <input type="checkbox"/> Material Storage                  |                    |   |
| <input type="checkbox"/> Proper use of equipment/hardware  | <input type="checkbox"/> Overhead hazards                 | <input type="checkbox"/> Floor Openings Protected          |                    |   |
| <input type="checkbox"/> Adequate illumination   | <input type="checkbox"/> Excavations                      | <input type="checkbox"/> Exposed floor                     |                    |   |
| <input type="checkbox"/> Engineer drawings   | <input type="checkbox"/> Guards in place                  | <input type="checkbox"/> Dust control                      |                    |   |
| <input type="checkbox"/> First Aid attendant   | <input type="checkbox"/> First Aid Supplies               | <input type="checkbox"/> Work areas                        |                    |   |
| <input type="checkbox"/> Treatments tested (asst)  | <input type="checkbox"/> WCB Form 7                       |  |                    |   |
| <b>2. Access &amp; Egress</b>  |   |  |                    |   |
| <input type="checkbox"/> Stairways ladders/corridors   | <input type="checkbox"/> Loading Zone                     | <input type="checkbox"/> Covered Walkways                  |                    |   |
| <b>3. PPE</b>  |   |  |                    |   |
| <input type="checkbox"/> Hard hats   | <input type="checkbox"/> Hearing protection               | <input type="checkbox"/> Trench/shafting                   |                    |   |
| <input type="checkbox"/> Safety footwear   | <input type="checkbox"/> Respirator/dust mask             | <input type="checkbox"/> Hi-Viz Vest                       |                    |   |
| <input type="checkbox"/> Safety glasses  | <input type="checkbox"/> Safety harness                   |  |                    |   |
| <b>4. Ladders</b>  |   |  |                    |   |
| <input type="checkbox"/> Secured top or bottom   | <input type="checkbox"/> 2 above platform                 | <input type="checkbox"/> Workers not on too 2 steps        |                    |   |
| <input type="checkbox"/> In good repair  | <input type="checkbox"/> Sailability                      | <input type="checkbox"/> Not in hazardous location         |                    |   |
| <b>5. Scaffold</b>   |   |  |                    |   |
| <input type="checkbox"/> Sailability   | <input type="checkbox"/> All braces on                    | <input type="checkbox"/> Guardrails/Handrails              |                    |   |
| <input type="checkbox"/> Firm Base/Wheels locked   | <input type="checkbox"/> All connections on               |  |                    |   |
| <input type="checkbox"/> Scaffold installation   | <input type="checkbox"/> Planks                           |  |                    |   |
| <b>6. Tools &amp; Equipment</b>  |   |  |                    |   |
| <input type="checkbox"/> Power saws  | <input type="checkbox"/> Chipping Hammers                 | <input type="checkbox"/> Guards                            |                    |   |
| <input type="checkbox"/> Cranes  | <input type="checkbox"/> Hand tools                       | <input type="checkbox"/> Lock-out procedures               |                    |   |
| <input type="checkbox"/> Proper Tool Use   | <input type="checkbox"/> Tool Condition                   | <input type="checkbox"/> Operating Procedures              |                    |   |
| <b>7. Electrical Safety</b>  |   |  |                    |   |
| <input type="checkbox"/> Temp. power distribution  | <input type="checkbox"/> Power cords                      | <input type="checkbox"/> Hi-volt Clearance                 |                    |   |
| <input type="checkbox"/> Assured grounding program   | <input type="checkbox"/> Hi-Voltage Hazard                |  |                    |   |
| <input type="checkbox"/> Lockout program   | <input type="checkbox"/> Hi-voltage line protection       |  |                    |   |
| <b>8. Fire Prevention</b>  |   |  |                    |   |
| <input type="checkbox"/> Fire extinguishers  | <input type="checkbox"/> Exits clear                      | <input type="checkbox"/> Flammables stored safely          |                    |   |
| <b>9. WHMIS</b>  |   |  |                    |   |
| <input type="checkbox"/> Labels on controlled products   | <input type="checkbox"/> MSDS for products                |  |                    |   |
| <input type="checkbox"/> MSDS sheets up to date  | <input type="checkbox"/> Worker training                  |  |                    |   |
| <b>10. Safety Program</b>  |   |  |                    |   |
| <input type="checkbox"/> Following of all applicable rules   | <input type="checkbox"/> Site specific SWP                | <input type="checkbox"/> Emergency Procedures              |                    |   |
| <input type="checkbox"/> Safety Manual On Site   | <input type="checkbox"/> Training                         | <input type="checkbox"/> First Aid                         |                    |   |
| <input type="checkbox"/> Orientations up to date   | <input type="checkbox"/> Record Keeping                   | <input type="checkbox"/> Tool box meetings                 |                    |   |
| <b>11. Fall Protection</b>   |   |  |                    |   |
| <input type="checkbox"/> Fall Protection/Anchors being used  | <input type="checkbox"/> Anchors suitable for application | <input type="checkbox"/> Equipment inspections             |                    |   |
| <input type="checkbox"/> Use of control zones  |   | <input type="checkbox"/> Barricades                        |                    |   |
| <b>12. Mobile Equipment</b>  |   |  |                    |   |
| <input type="checkbox"/> Operator qualified  | <input type="checkbox"/> Daily inspection                 | <input type="checkbox"/> Safety devices in place           |                    |   |
| <input type="checkbox"/> Use of fall protection  |   |  |                    |   |
| <input type="checkbox"/> Compliant/Meets the standard <input type="checkbox"/> Needs Attention (note below) <input type="checkbox"/> Not applicable/Not Observed |   |  |                    |   |
| Topic & Area Inspected<br>(e.g. 1a NE corner level 3)  | Rating  | UNSAFE ACT/CONDITION<br>(e.g. materials not stored safely) | Who is responsible | CORRECTED<br>(see notes)                                |
|  |   |  |                    | <input type="checkbox"/> Y <input type="checkbox"/> N   |
|  |   |  |                    | <input type="checkbox"/> Y <input type="checkbox"/> N   |
|  |   |  |                    | <input type="checkbox"/> Y <input type="checkbox"/> N   |
|  |   |  |                    | <input type="checkbox"/> Y <input type="checkbox"/> N   |
|  |   |  |                    | <input type="checkbox"/> Y <input type="checkbox"/> N   |
|  |   |  |                    | <input type="checkbox"/> Y <input type="checkbox"/> N   |
|  |   |  |                    | <input type="checkbox"/> Y <input type="checkbox"/> N   |
| FORM-0007      1 of 2  |   |  |                    |   |







## APPENDIX 3

### SAFework PROCEDURES

#### MIXING

Mixing mortar/grout involves exposure to dry cement mix.

Some workers may find this causes a little skin irritation. Additionally, during the mixing process harmful silica dust is present.

Gloves, eye protection, and North 100 respirator with HEPA filter are required for this task.

The mixer should be operated in an open area; if this is not possible it should be enclosed in plastic to control the dust.

#### ACID WASH Manual

The task of washing brick/block can be performed with a brush (or pressure washer, see below) and mild hydrochloric acid.

- Always wear rubber gloves, glasses, and a full-face respirator with a filter rated for acid.
- The task of washing brick/block can be performed with a brush and hydrochloric acid or with a pressure washer;
- Acid wash (hydrochloric acid) with a pressure device creates a floating mist that will carry through the air, do not expose other workers or the public to this mist. Stop work and reschedule if this occurs;
- Consult SDS for the hazards this product creates;
- Avoid swallowing, inhalation, skin contact and accidental spills;
- Prevent material from entering waterways, sewers or confined spaces;
- Mix product slowly to avoid splashing, keep in original packaging;
- Avoid contact with incompatible materials, such as potassium hydroxide, sodium hydroxide, calcium hydroxide (slaked lime), ammonia, carbonates, metals, such as aluminum, steel, and brass.

#### ACID WASH / Pressure Washer

Pressure washers cause spray to frequently drift from the specific work location to other areas of the site.

In the event other workers or the public are exposed to drifting spray the work must be stopped. If necessary, the work must be scheduled to a time after normal working hours. All cautions above apply.

#### WORKING WITH MORTAR / GROUT

Mortar/grout can cause skin irritation to hands, gloves are recommended.

A hazard of laying brick or block is the loss of small amounts of mortar or grout and it can fall from heights. A control zone must be set up and maintained. Signage is also required. (see back of manual)

#### BRICK /BLOCK WALL INSTILLATION AND BRACE

When we construct a brick/block wall it must be supported by tie in to a structure.

If no structure is present, it must be supported by a properly constructed support. This will prevent the wall from collapsing in a high wind.



### WORKING WITH GAS POWERED EQUIPMENT (INDOORS OUTDOORS)

Forklifts, chop saws and other petroleum fueled engines create pollution.

When used outside they are largely benign. Frequently we use them in a parkade or other indoor workplace. When confined toxic fumes are trapped. The equipment must be in good order and have all the required pollution control devices. The motor is never to be left at idle and must be used for a brief period.

### RESPIRATORS

Respirators are required to control the inhalation of toxic pollutants; notable poisons are silica dust and the mist from acid washing.

They must be fit tested annually. The filters must be changed regularly and the spent filters disposed of safely. Store the respirator in a plastic bag.

PPE: RESPIRATORY PROTECTION (NORTH 100 ½ MASK)

### STORAGE OF MATERIALS (LIFTING)

Gasoline and other flammables are to be stored in the open air.

Lifting heavy objects is a hazard get another worker if its "too much"

Store tools and equipment away from exposure to the elements.

### PREVENTIVE MAINTENANCE

The equipment required for masonry work requires maintenance and repair.

Each machine is to be inspected daily before use. A check sheet record of this inspection is to be kept. Smaller items like tools are to be "tagged out" if found deficient.

Any deficiency is to be reported to management for repair.

All equipment is to be inspected annually.