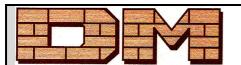


Occupational Health & Safety Program

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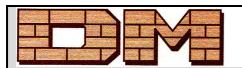
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Occupational Health & Safety Program

USING THE SAFETY PROGRAM

1 GENERAL

This safety manual has been designed to provide detailed information on all aspects of safety applicable to our work. There are aspects of information which we cannot detail due to space constraints, however, more information are provided in the applicable sections of regulatory documents and standards which apply. Municipal governments may also have specific requirements to follow. Speak with the Safety Manager if you have any questions that cannot be answered be answered through this OH & S Program.

2 THE PROGRAM

2.1 BREAK DOWN

Each section has information outlining how work is to be done or provides information on other topics not directly related to safety such as claims cost management.

2.1.1 FOCUS STATEMENT

The focus statement of each section is a short statement on the overall purpose of the section.

2.1.2 KEY POINTS

Each section has key points which should be understood; they are critical pieces of information. They do not provide detailed information but assist the reader's understanding.

2.1.3 DID YOU KNOW?

Did you know ...

These points provide examples or details in understanding the information applicable.

2.1.4 OH&S REGULATION REFERENCES

References to the BC OH&S Regulation are shown as indicated below.

WORK SAFE SC Part 3.12 of the OH&S Regulation

2.1.5 Version and Revision Information

Our program will be reviewed annually or more frequently if required. Revision dates will be noted on the bottom of each page. The version of the document will also be revised.

2.2 FORMS & SWP

2.2.1 FORMS

Required forms are indicated in the applicable sections and located in the forms section.

2.2.2 SWP

Safe Work Procedures are provided for most work performed or tools and equipment used.

3 COMPANY POLICY

Policy statements are issued to provide clarification and directives on issues applicable to all sites. The policy section of the program is to be maintained by the CSO/FAA and Site Superintendent. Policy letters or memorandums received from head office are placed in the policy section. Directives will be included on how information is to be disseminated on site.

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Occupational Health & Safety Program

4 FEED BACK

This program is a living document. It is routinely reviewed and revised to keep it current and easy to use. If there are aspects of this document requiring more detail or clarification, please speak to your Supervisor, who will forward your comments to the Safety Manager.



Occupational Health & Safety Program

SAFETY IS AN ATTITUDE

Safety is not something you can take or leave alone. It is not only for when one is being watched or supervised. Safety is not posters, slogans or rules, nor is it movies, investigations or inspections.

Safety is an attitude, a frame of mind. It is the awareness of one's environment and actions all day, every day. Safety is being aware of what is going on, knowing how to recognize hazards, and how to prevent injuries. Safety does not require genius, a University degree, a title or rank. It requires common sense and a reasonable ability to see, to hear, to smell, to think, and to care. It must be integrated into all daily production activities.

To ignore safe practices indicates foolishness, not bravery.

To do things safely and correctly is the mark of a wise person, not a timid one.

COMMITMENT TO ACHIEVING ZERO INJURIES IS EXPECTED FROM EVERYONE.
WE BELIEVE A PRODUCTIVE DAY IS COMPLETED WHEN EVERYONE GOES HOME SAFE.

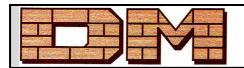
ACKNOWLEDGEMENT

We believe ZERO INJURIES in the workplace is achievable by everyone demonstrating great leadership.

Each Manager and Supervisor has received a copy of our Occupational Health and Safety Program. Everyone will be expected to read, understand and implement this program to ensure that risk exposure is minimized on all of our worksites.

Let us work together to achieve this goal.			
	sign name) have received a copy and understand my role vledge, practice and continually strive to promote the		
Worker Signature	Date Received		
Project (Site)			

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Occupational Health & Safety Program

ENVIRONMENTAL POLICY

1 GENERAL RULES

We are committed to establishing and maintaining sound business practices by working with government, clients and the public to minimize the impact our work has on the environment. All employees and sub-contractors will support this objective by adhering to the following rules;

- 1. Dangerous, hazardous and toxic materials will be marked, handled and stored in an approved manner.
- 2. Vehicles will be operated so environmental impact is minimized.
- 3. Site generated waste is to be placed in designated containers only.
- 4. Environmental spill kits will be made available on site as required.
- 5. Any loss of a hazardous product in liquid form of over five (5) litres must be reported to the safety manager and Form-0004 Environmental Incident Report must be completed.
- 6. Contaminated soil is securely stored on site until it can be disposed of properly.
- 7. Portable fueling (tidy) tanks will be protected by an environmental protection field equivalent to 120% of its capacity.
- 8. Oily rags will be stored in a secure location on site until proper disposal is possible.
- 9. Adequate fire extinguishers will be available during all fueling operations.

2 ENVIRONMENTAL HAZARDS

2.1 INTRODUCTION

The various environmental factors or stresses that can cause personal injury, sickness, impaired health, significant discomfort, and inefficiency of workers may be classed as chemical, physical, biological, or ergonomic hazards.

2.2 CHEMICAL HAZARDS

Chemical hazards arise from excessive airborne concentration of dust, vapours, gases, or solids that are in the form of dusts or fumes. In addition to the hazard of inhaling these types of contaminants, many of these materials may be skin irritants or may be toxic by absorption through the skin.

2.3 PHYSICAL HAZARDS

Physical hazards include noise, electromagnetic radiation or lasers, vibration and extremes in temperature and pressure.

2.4 BIOLOGICAL HAZARDS

Biological hazards include insects, molds, fungi and bacterial contamination including such sanitation and housekeeping items as potable water, removal of industrial waste and sewage, food handling, and personal cleanliness.

2.5 ERGONOMIC HAZARDS

Ergonomic hazards include improperly designed tools or work areas. Improper lifting or reaching, poor visual conditions, or repeated motions in an awkward position may contribute to accidents on a site.

This class of potential injury is referred to as Musculoskeletal Injuries, or MSI. See the First Aid section for more details on this type of injury and some strategies for preventing them.

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Occupational Health & Safety Program

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.

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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;
- 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.

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- 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 Powerline
- 4. Respiratory Protection
- 5. Hearing Protection
- 6. WHMIS

5.3 DOCUMENTATION

Worker training documentation must be kept on site and made available upon request. There are several forms in this program which should be used to record worker training. They are;

- 1. Form-0012 is used to record fall protection training.
- Form-0018 is used to record WHMIS training.
- 3. Form-0017 is used to record any substance specific (WHMIS) training.
- 4. Form-0038 is used to record respirator use and fit test training.
- 5. **Form-0075** is used to record any SWP training an individual worker receives. This form is retained as part of the workers permanent file.
- Form-0098 is used to record a worker (employee or a sub-contractor) has been trained in our OH&S Program.

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.

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9 PROGRAM REVIEW

All aspects of our OH&S Program will be reviewed at least annually with updates to the program occurring as required.

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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 reviewed to ensure they are serving their intended purpose.
- 7. Accidents/incidents are promptly investigated and recorded. Without delay, the hazard will be corrected.
- 8. Appropriate records and statistics are maintained and made available to the company Health and Safety Committee or representative and WorkSafe BC Officers.
- 9. Periodic management meetings are held for the purpose of reviewing health and safety practices and accident trends and determining necessary courses of corrective action.
- 10. A Health and Safety Committee or representative is established and maintained, in accordance with the OH&S Regulation.
- 11. Safety and health practices for employees of sub-contractors are coordinated with those of the company.

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- 12. Thorough planning takes place prior to the commencement of any job, and continues on an ongoing basis.
- 13. Work sites, equipment, work methods and practices are regularly inspected with the intention of identifying and correcting hazards.
- 14. Personal protective equipment is provided as required by the Regulation.
- 15. First aid services, equipment, and provisions for medical care are available.
- 16. Emergency procedures are developed and maintained and workers are trained in these procedures.
- 17. Environmental and medical monitoring services are coordinated where deemed necessary by regulation.
- 18. Disciplinary action is taken when required.
- 19. 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. Cooperate with the Construction Safety Officer and safety representatives at the site.
- 3. Copies of the OH&S Regulation and the company's Safety Program are on the job site.
- Regular site inspections are conducted and recorded in the Site Inspection Log Book.
 Immediate action is taken to correct any sub-standard safety condition.
- 5. They review safety records and take actions necessary for improving job safety.
- 6. Accident/incident investigations are performed.
- 7. Health and safety meetings are attended by representatives of the company.
- 8. Safety items are discussed in meetings with owners and sub-contractors and that workers adhere to all site safety regulations.
- 9. All accident investigation reports are reviewed to ensure that accident causes are properly investigated and appropriate corrective action is taken.
- 10. Establishing and maintaining contact with absent workers to facilitate return to work.
- 11. In liaison with the Construction Safety Officer, an appropriate emergency plan is developed and communicated to workers on the job site.
- 12. Workers are physically and mentally fit to perform assigned duties.
- 13. Workers are encouraged to participate in the Occupational Health & Safety Program
- 14. Informing workers of any potential hazards associated with their tasks.
- 15. Workers use and are trained in the use of appropriate personal protective equipment.
- 16. Workers under their direction are trained in the safe work procedures associated with their tasks.
- 17. General safety instruction is provided to new workers prior to assignment of duties and followed up regularly
- 18. Workers are not permitted to work when their actions indicate that work would jeopardize themselves or others
- 19. Informing workers of any potential hazards associated with their tasks
- 20. Workers are encouraged to participate in the Occupational Health & Safety Program
- 21. Workers are physically and mentally fit to perform assigned duties
- 22. An effective program of good housekeeping is developed and administered
- 23. Adequate first aid facilities are maintained on the job site.



Occupational Health & Safety Program

- 24. Effective and useful toolbox safety talks for the workers.
- 25. Positive reinforcement is given for good safety performance.
- 26. All controlled products are identified and labeled and MSDS are used.
- 27. Tools and equipment are inspected, properly maintained and in safe working order.
- 28. Disciplinary action is taken when required.
- 29. 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:

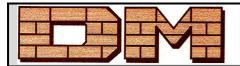
- 1. Complying with company and legislated safety rules and regulations.
- 2. Using or wearing any required personal protective equipment.
- 3. Removing jewelry and other loose fitting objects that could become caught in machinery or equipment they operate.
- 4. Reporting any unsafe conditions to an 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. Keep documentation of workers' training on site.
- 7. Plan and execute all work in a manner complying with local government regulations.
- 8. Provide, and ensure the use of, adequate personal protective equipment.
- 9. Provide emergency transportation at no cost to their employees.
- 10. Conduct regular inspections to identify unsafe practices and conditions and take corrective action to eliminate potential causes of accidents and/or incidents.
- 11. Continually monitor for hazardous conditions and ensure that dangers are eliminated where practicable, and controlled when it is not practicable.

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- 12. Hold periodic management meetings for the purpose of reviewing health and safety matters and accident trends and determining necessary courses of corrective action.
- 13. Cooperate with CSO or other safety representatives having jurisdiction at the site.
- 14. Ensure workers do not work when their actions jeopardize themselves or others
- 15. Keep appropriate records and statistics and make them available upon request.
- 16. Ensure tools and equipment are properly maintained and in safe working order.
- 17. Ensure emergency procedures are developed, maintained and workers are trained.
- 18. Review all safety meeting reports to ensure meaningful direction is provided to workers.
- 19. Maintain good housekeeping on the site.
- 20. Ensure all accidents/ incidents are investigated; documented and corrective action is taken to prevent re-occurrence. Copies of reports are given to the on site supervisor.
- 21. Monitor newly employees until confident of worker's ability to perform duties safely.
- 22. Ensure that adequate first aid facilities are maintained on the job site.
- 23. Ensure any injured person (regardless of how minor the injury) are referred to the appropriate first aid or medical facilities.
- 24. Ensure fire extinguishers are in place when needed, including in each lunchroom.
- 25. Set a good example.

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.

7 VISITORS

All visitors to our project sites must:

- 1. Report to the project office and obtain permission for entry onto the project site.
- 2. Wear approved personal protective equipment. Refer to the General Safety Rules section for more information on this topic.
- 3. Comply with safety regulations and our Safety Program requirements.

8 FORMS

Form-0022 Site Visitor Form is to be used for all persons that come on site but will not be working. These individuals must receive a site specific orientation on the hazards on site along with emergency procedures. Visitors who become workers in the future will still need to partake in the worker's site orientation.

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Occupational Health & Safety Program

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. They provide a means of ensuring employees can benefit from work experience without injury.

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.

- 1. All visitors must report directly to the site office before entering.
- 2. All personnel must complete a site safety orientation prior to working on site.
- 3. Emergency procedures are in place and must be followed.
- 4. All medical conditions must be reported to your supervisor before starting work.
- 5. All accidents or injuries must be reported to your supervisor / first aid attendant
- 6. No alcohol or drugs allowed on site.
- 7. Personal Protective Equipment and clothing must be worn at all times, as applicable, based on the worker's asks and surrounding hazards, including but not limited to:
 - Protective headwear
 - Eye protection
 - Hearing protection
 - Protective Footwear
- 8. Smoking is prohibited except in the designated areas.
- 9. No horseplay, fighting, or harassment is allowed on site.
- 10. Only trained and authorized employees are to operate equipment.
- 11. Fall arrest and fall protection plan must be followed above 10'. No exceptions.
- 12. Guardrails must be installed and not to be removed unless required by work in the immediate area.
- 13. Ladders must be in compliance, secured from slipping and extend 3' above landings.
- 14. When working near the edge of a slab or open deck ensure all materials and equipment are kept well back to prevent the possibility of falling objects.
- 15. Electrical lockout procedures must be followed at all times.
- 16. Site to be kept clean. All work areas must be kept clear and unobstructed.
- 17. Participation in your safety program is encouraged. Please take part by:
 - •Joining in on Toolbox meetings (mandatory)
 - Attending safety orientations
 - •Offering suggestions for improving safety on the job
 - •Working safely and encouraging fellow workers to do the same

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2 SAFETY SELF AWARENESS

All workers must use common sense and good judgment while working on any of our sites.

All sub-contractors must ensure all their workers are properly instructed in the safe performance of their duties and are required to show proof of training.

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, and whether they are followed by:

- 1. Reviewing inspection records and accident investigation records
- 2. Observing jobs
- 3. Evaluating worker suggestions
- 4. Safety committee recommendations.

Management and supervisors, in conjunction with the safety committee, are responsible for the revision and development of procedures. Supervisors are also responsible for ensuring worker understanding of, and compliance with, general safety rules and procedures.

All workers must correct or report unsafe conditions or practices to their supervisor.

2.1.1 INJURY PREVENTION

All 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.

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 WorkSafe BC 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.

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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.

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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.

Supervisors have the authority to immediately suspend any worker who they have control over for any act they deem to be willful in nature. Furthermore supervisors also have the authority to suspend workers for any acts of harassment, discrimination, impairment, or improper conduct.

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. Unshored Excavations
- 2. Hi-voltage Powerline Contacts
- 3. Failure to lockout Equipment
- 4. Hazards immediately dangerous to life and health
- 5. Inadequate protection of workers from health hazards that have some long-term chronic effect (concrete dust)
- 6. Inadequate use of Mobile Equipment
- 7. Inadequate First Aid facilities or coverage
- 8. Lack of supervision/coordination between sub-trades; allowingunsafe working habits
- 9. Inadequate Occupational Safety & Health Program
- 10. Failure to use Fall Protection as required
- 11. Working alone in confined space
- 12. Use of drugs and alcohol while working
- 13. Harassment
- 14. 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.

Did you know you could be terminated for 1st offence of a major infraction if we feel actions were willful?

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.

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.

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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 and to WorkSafeBC Officer for the project's area.

An individual having three (3) strikes may request reinstatement if permitted by the site Superintendent and Safety Officer. 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 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Part 8 and Part 7 of the OH&S Regulation

Prior to using any PPE, ensure it is in good shape, free of dirt and debris and familiarity with its correct use. Workers must ensure all PPE fits properly and not defective. This requires inspection prior to each use. PPE must always be stored with care to prevent damage. Refer to manufacturer's instructions for proper care and storage.

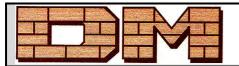
The following points outline specific requirements for PPE;

9.1 HEAD PROTECTION

Part 8.11 of the OH&S Regulation

- 1. All workers shall wear, at all times on the job, a CSA approved safety hardhat.
- 2. Non-conductive safety headgear is required when exposed to electrical hazards.
- 3. Never paint your hardhat and never wear a painted hardhat
- 4. The shell and suspension of hardhats must be inspected regularly for cracks, deep scratches or other defects.

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- 5. Replace a defective hardhat immediately.
- 6. Replace headgear every 5 years and suspension every year.

9.2 FOOT PROTECTION

Part 8.22 of the OH&S Regulation

- 1. At all times on the job, construction workers must wear CSA certified footwear.
- 2. Safety footwear should always be worn with the laces tied up at the top of the footwear.
- 3. Do not wear safety footwear that is cracked or has cuts through the leather. Ensure footwear has good slip resistant sole material that is not excessively worn.

9.3 SKIN PROTECTION

Part 8.19 to 8.21 of the OH&S Regulation

- 1. 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.
- 2. 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.

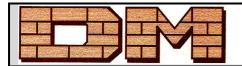
 Cotton or wool fabrics are more flame retardant and are therefore recommended.
- 3. Workers must at all times wear a shirt with a four inch sleeve in order to protect themselves from sunburn and abrasion.
- Long pants and long sleeved shirts are recommended for use to reduce minor cuts, scrapes and abrasions and should be worn when working with sharp or abrasive materials.
- 5. Gloves should NOT BE WORN when operating powered tools such as drills, saws, table saws, etc.
- 6. 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.

9.4 EYE PROTECTION

Part 8.14 – 8.18 of the OH&S Regulation

- 1. Where the possibility of eye injury, workers shall wear appropriate eye protection. As a basic requirement, workers are advised to wear safety glasses with side shields.
- Workers must wear safety goggles over non-safety prescription glasses where an eye hazard exists.
- 3. Operating sanders and grinders requires safety glasses with side and face shields.
- 4. Workers using chemical products, with splash hazards shall wear safety goggles or chemical splash goggles dependent upon MSDS requirements. 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.
- 5. Workers wearing contact lenses must inform their supervisor so the lenses can be removed in the event of an accident.
- 6. 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.

7.



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9.5 HEARING PROTECTION

Part 7.7(1)(c)(d) of the OH&S Regulation

Refer the Hearing Loss Prevention section of this Program for further details.

9.6 RESPIRATORY PROTECTION

Part 8.32 to 8.45 of the OH&S Regulation

The use of respiratory equipment is only is only permitted by trained personal. Refer to the Respiratory Protection Program section for more information on the safe use of respirators.

10 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.
- 4. Compressors where the pump and the compressor are connected via a belt.

Under no circumstances is a worker permitted to remove a guard from a tool unless it is to affix another piece of equipment.

11 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 used compress 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

12 FORMS

Form-0086 Impaired Behavior Observation Report is to be completed when a worker is seen to be under the influence of drugs or alcohol. Any Form-0086 submitted will prompt a thorough investigation on our part before any action is taken to discipline the implicated worker(s). The worker(s) implicated in the report may be removed from the site for their own safety.

Form-0087 Consent to Undergo Drug Testing is to be completed as part of the investigation initiated with the submission of a Form-0086.

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Form-0091 Notice of Violation will be issued to any worker observed in violation of the OH&S Regulation or our OH&S Program or their employer's OH&S Program. Copies of Form-0091 are given to the worker's supervisor, employer and are retained on site.

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Occupational Health & Safety Program

SAFETY MEETINGS

Know your job. Figure out what is working and what is not working and then call a meeting to discuss. Eliminate the 'I did not know' statement.

Key Points ☑ Safety meetings are mandatory

Keep focused and on topic

Tool box meetings help keep workers focused

1 HEALTH AND SAFETY COMMITTEE

Part 3 Division 4(125) of the Workers Compensation Act

The Health and Safety Committee plays a crucial role in setting the foundation required to achieve zero injury performance. Primarily, the Health and Safety Committee is responsible for communicating and demonstrating the value of an effective safety program by identifying several techniques used to achieve zero accidents.

Specific goals of the Health and Safety Committee include, but not limited to:

- Assist in the establishment, promotion, and maintenance of healthy and safe work conditions and attitudes.
- 2. Promote and maintain programs for employee health and safety education.
- 3. Assist with inspections, near miss investigations and return to work of injured workers.
- 4. Evaluate and respond to complaints, provide solutions on safety and health matters.
- 5. Ensure adequate records relating to accidents, injuries, illnesses and health hazards are maintained and monitored.
- 6. Review all WorkSafeBC and employer reports concerning worker safety and health.

1.1 MINUTES

Minutes will be prepared immediately after meetings and distributed to all members and substitutes. Any additions or corrections must be received in writing within 5 working days after the date of issue or they shall stand as written.

Adopted minutes from previous meetings will be posted where workers may read them. Copies of minutes and reports will be kept on file for a period not less than two years, and will be made available to the OH&S upon request.

1.2 CONSTITUENCY

Part 3 Division 4(127) of the Workers Compensation Act

Committees must consist of at least 4 members with half (or more) worker representatives. There should be two (2) substitute members, both employed full-time, one to represent management and one to represent workers. Substitute members are to be granted the same rights as committee members.

1.3 COMMITTEE OFFICERS

The Committee must elect 2 co-chairs, one selected by the worker representatives and the other by the employer representatives. Term length will be minimum six months.

A secretary will be responsible for keeping records of meetings and preparing and distributing agendas, minutes, and annual report under direction of the co-chairs.

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1.4 AMENDMENTS

The terms of reference may be amended by a majority vote of committee members.

2 TOOLBOX SAFETY MEETING

Did you know weekly crew talks are mandatory and no one is exempt from attending?

Regular Toolbox Safety talks must be conducted not less than weekly to provide workers training and education. All sub-trades working for us must conduct their own meetings or participate in ours.

Each trade should prepare a 5 to 10 minute safety talk involving the entire workforce under their direction. Generally, these talks involve recent monthly site safety meeting minutes, a safe work procedure, tool or a piece of equipment, which is being used on site, etc.

Each trade supervisor is to record worker attendance, the topics discussed, and any other pertinent concerns brought up by workers or any other trades people on site.

Meeting minutes are posted in break areas and retained on site. Copies must be forwarded to the general contractor safety officer for action and record keeping.

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.

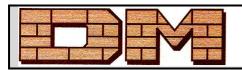
When you deliver your talk;

- 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.

3 FORMS

Form-0042 and **Form-0043** are used together to record crew talks and attendance. Any suggestions and/or unanswered questions for later comment, and corrective actions recommended should be recorded on Form-0043.



Occupational Health & Safety Program

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

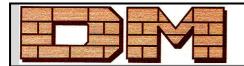
1 ACCIDENT PREVENTION POLICY

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.

Posters, accident statistics and other safety related material must be posted in common areas.

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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. Information shall be recorded on the form provided and the supervisor shall review the reports with their workers.

Reports shall be sent to our Head Office and will be forwarded to the appropriate agencies by upper management.

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.

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 form 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;
- 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/ACCIDENT 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;
- Identify any unsafe conditions, acts or procedures that contributed to the accident;

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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:

- 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.).
- 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.

7 FORMS

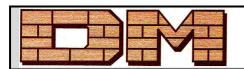
There are several forms which should be used when completing accident or incident investigation and reporting. All reports must be marked as DRAFT until they have been reviewed by all concerned parties and have been approved. Once approved reports can be marked FINAL.

Form-0001 Investigation Checklist is used as a guide when conducting investigations. It is used to assist the investigator on focusing on what information needs to be gathered during the investigation in order to produce an accurate report from which to derive reasonable recommendations for preventing a repeated accident or incident.

Form-0002 Accident Report is used to record details from the accident investigation as well as providing a format for reporting. All fields should be completed if they apply. If a field does not apply than 'N/A' should be recorded.

Form-0003 Incident Report is used to record details from an incident investigation and provides a format for reporting. All field should be completed or marked with 'N/A'.

Form-0004 Environmental Incident Report is used to record the investigation details for any type of environmental incident such as a fuel spill. Once completed the form is submitted as a report.



Occupational Health & Safety Program

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.

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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 require first aid treatment, is kept in the Accident Record Book.

Did you know you are required by law to report all injuries sustained on site to your supervisor and FAA?

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 injures 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.

4 REDUCING RISK OF INFECTION

4.1 EMPLOYER RESPONSIBILITIES

Where workers could be exposed to blood and certain body fluids as part of their normal job duties, we will comply with the sections on bio-hazardous materials in part 6 of the Regulation.

- 1. Ensure a vaccination against Hepatitis B virus is available at no cost, upon request.
- 2. Inform and instruct workers on eliminating or reducing risk of contact.
- 3. Provide workers with the equipment, tools, and personal protective equipment (PPE) needed to deal with an unforeseen contact.
- 4. Monitor the workplace to ensure safeguards are used and safe practices are followed.

In case of an exposure incident, ensure that:

- 1. Prompt, easy-to-access first aid and medical attention is available.
- 2. Employees are aware of procedures for obtaining immediate first aid and medical attention and for reporting incidents of exposure to blood and certain body fluids.

4.2 WORKER RESPONSIBILITIES

Workers are responsible to help reduce risk of contact with blood and certain body fluids by:

- 1. Attend education and training sessions provided by the employer.
- 2. Use controls and follow safe practices established for their protection.
- 3. Use available tools and PPE in chance encounters with blood and certain body fluids.

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- 4. Know how to get immediate first aid and medical attention and how to report exposure incidents to blood and certain body fluids.
- 5. Know not to clean up spilled blood and body fluids without training and PPE.

4.3 TOOLS AND EQUIPMENT

Tools and equipment – as well as PPE – needed to do the job safely will be provided. it is good practice to have proper sharps containers, gloves, tongs, and pliers available to pick up needles, in case workers do encounter them.

4.3.1 SAFE WORK PRACTICES

All workplaces should have basic work practices to deal with the rare incidents that could occur.

- 1. Follow universal precautions
- 2. Get or administer first aid
- 3. Report exposure incidents and seek medical attention
- 4. Safely clean up blood and body fluids after spills
- 5. Safely decontaminate or dispose of contaminated objects

Universal precautions treat the blood and body fluids of every person as if they are infectious. An example of a universal precaution is wearing waterproof gloves when handling objects contaminated with blood.

Universal precautions are necessary because:

- 1. People can carry HIV and the Hepatitis viruses without any signs or knowing it.
- 2. It is possible to become infected with one exposure to infected blood and body fluids.

4.4 PERSONAL PROTECTIVE EQUIPMENT

PPE acts as a barrier against skin and mucous membrane contact with blood and body fluids. PPE includes face shields, protective eye wear, waterproof gloves, aprons, gowns, lab coats and shoe covers. Work instructions state when and what type of PPE is needed.

When PPE is required, we will:

- 1. Provide the right kind of PPE for the hazard.
- 2. Ensure that it is readily available in sufficient quantities.
- 3. Make sure it fits the worker.
- 4. Train workers in its use and limitations.
- 5. Ensure that it is properly cleaned, maintained, stored, and replaced as needed.

4.4.1 GLOVES

Gloves are one of the most common types of PPE. Gloves should be waterproof, disposable, of good quality, and suitable for the task – for example, medical gloves certified by the Canadian General Standards Board (CGSB). Do not use cloth gloves or gloves that are not waterproof.

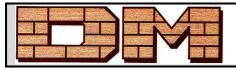
Select the type and thickness of glove offering the best balance of protection and dexterity.

Some workers who wear rubber or latex gloves develop health problems such as skin rashes and allergies. More information on these health problems can be found in the WCB publication. Dealing with "Latex Allergies" at Work. To order a copy, telephone the WCB Films and Posters Section at (604) 276-3068 or 1 (800) 661-2112.

4.4.2 KEEP BROKEN SKIN COVERED

Cuts, scrapes, dermatitis, chapping, and other injuries can cause breaks in your skin. It is important to protect fresh breaks because they can provide an entry route for bloodborne

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pathogens. Cover injuries or non-intact skin with a waterproof dressing or bandage if there is a possibility that you may contact blood and certain body fluids – even though you wear gloves. The bandage will provide more protection to the broken skin in case the glove is punctured on in case blood and body fluids seep in around the top of the glove.

4.5 SHARPS DISCARDED IN PUBLIC PLACES

Do not pick up sharps and other items unless you have the proper equipment and PPE, and you have been instructed how to do safely. Do not pick up anything with the intention of discarding it later. For example, don't put a used needle in your pocket that is not in a proper pocket container. You could injure yourself before you discard it.

Do not place needles in regular garbage under any circumstances.

4.5.1 DISPOSAL PROCEDURE

- 1. Have disposable waterproof gloves (such as natural rubber latex, neoprene, nitrile, and vinyl) and a proper sharps container ready.
- 2. Put the gloves on. Place the sharps container next to the needle or other item. Do not hold the container in your hand, or you might accidentally jab yourself.
- 3. If you are comfortable using tongs or pliers, use them to pick up the item and place it in the container. This is the preferred method. Place the needle into the sharps container, pointed end first, away from you. Do not insert your fingers into the container opening and keep your free hand out of the way.
- 4. Remove and discard the gloves. Wash your hands with soap and water.
- 5. 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.

4.6 PICKING UP CONDOMS

If you find a used condom, do not use your bare hands to pick it up. Use waterproof gloves, tongs, or something else to pick it up and throw it in the garbage.

5 FORMS

Recording of injury information is important to ensure we are able to track injury types and mechanisms in order to identify the types of work which are causing injuries.

Form 7 (WorkSafeBC) is the employer's record of injury which is submitted to WorkSafeBC if one of our employees is injured at work.

Form 55M50 (WorkSafeBC) Occupational First Aid Patient Assessment is to be completed for serious injuries and provided to emergency services crew upon arrival.

Form 6A (WorkSafeBC) is the report of injury which is submitted to WorkSafeBC by the worker and completed without assistance by the First Aid Attendant or Supervisor,

Form-0002 Accident Report is completed by the Supervisor when any worker is injured on site for all injuries other than minor injuries not requiring additional medical attention.

Form-0003 Incident Report is completed by Supervisors for near-miss, injury or equipment damage.

Form-0008 Treatment Record is used to record any treatment given to an injured worker. These forms are sequentially numbered and confidential. Update them when a work returns for a follow up visit. Reference the applicable record in future forms particularly if the worker is experience a recurring injury.

Form-0009 Injury Reporting Summary is a record of the monthly totals for first aid and other first aid type events such as medical aid or lost time.

Form-0010 is used to acknowledge participation or non-participation in a Hepatitis B vaccination program. First aid attendants are encouraged to participate in the program.

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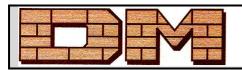
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Form-0083 Monthly Injury Summary is used to record which trades are sustaining which type of injuries. The form also records how those workers were injured.

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VERSION: 1.0



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WORKPLACE INSPECTIONS

We inspect to find hazards so they do not pose a threat to workers on site.

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.

Fewer injuries and illnesses, increased productivity, and reduced costs associated with accidents and increased safety awareness are direct results of a Hazard Assessment process.

Recognition, evaluation and control of workplace hazards a fundamental safety concept that should be understood and practiced by everyone.

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.

Before any work at the work site begins, a Hazard Assessment must be conducted. The Hazard Assessment must be management/supervisor led. The team approach achieves the best results. Site drawings and proposed schedules are critical tools for identifying potential hazards, evaluating them, and making recommendations for corrective actions and controls.

Once completed the hazard assessment is reviewed by all applicable personal. As part of the hazard assessment a plan is developed detailing how hazards noted will be addressed.

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. Tour the entire operation.
- 4. Look for possible hazards originating in environment, material, equipment and people.
- 5. Keep asking "What if?"
- 6. Mark on the checklist all items that need attention.
- 7. Review the findings with supervisors/workers and solicit their input for control measures.

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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 a 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 take to address the hazard. All inspection reports must be retained on site for inspection by authorized personal.

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. ON SITE VEHICLES

parked in safe location

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operators are authorized operated at a safe speed operated in a safe manner

4. CONTAINERS

appropriate hazard labels contain what is on label stored in a manner compatible with contents not leaking

5. 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

6. ELECTRICAL

cord insulation intact

"no tripping hazards"

three prong plugs are used

energized junction boxes and electrical panels are covered

energized rooms are locked

ground fault circuit interrupters used in wet locations

temporary lighting does not have broken or missing bulbs

clearance maintained for workers and equipment

7. FALL PROTECTION

lifelines and safety harnesses are used

lifelines attached to an independent firm structural member

lifelines have adequate breaking strength and documentation on site

8. FIRE PROTECTION

fire equipment is accessible and in working order gasoline and flammables stored in approved containers emergency phone numbers posted temporary heating devices provided with adequate clearance danger signs in hazard areas

9. 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

10. HAZARD CONTROLS

lock out procedure

MSDS documentation is on site and up to date.

signs and tags

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11. HOUSEKEEPING

work area is clean and free of debris

spilled or leaked liquids are cleaned up

adequate garbage containers available

nails are bent over

materials and equipment stored in a safe manner

combustible waste materials stored safely and removed from work site

electrical cords must be kept in good condition and be monitored regularly to eliminate electrical hazard.

Any damaged cords must be removed from site.

12. 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

no metal ladders in proximity to electrical hazard

barricaded when used in passageways and stairwells

secured to prevent movement

job made ladders built according to the WCB Regulation

remove broken ladders from the site

13. MACHINERY GUARDS

prevent contact with moving parts

prevent access to danger area during operation

14. 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

15. REGULATIONS AND PROCEDURES

posted on site and followed by all workers

16. 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

17. STAIRWAYS

free of obstruction

handrails

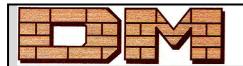
adequate lighting

18. WALKWAYS

railing/toe board

adequate lighting

free of obstacles



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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.

7 FORMS

Form-0007 Daily Inspection Report is used to record the overall safety, violations or hazards are noted during routine inspection. There must be a daily inspection report for each formal inspection completed on site.

Form-0021 Vehicle Daily Inspection is used to record the results of daily vehicle inspections. This daily inspection report also covers weekly and monthly inspection points and should be retained with the vehicle at all times.

Form-0025 should be used to record the results of inspections done on boatswain's chair.

Form-0030 Forklift Safety Checklist is completed before using a forklift, is required daily and should be retained with the forklift.

Form-0037 should be used to record the inspection results for crane trucks.

Form-0047 Scaffold Erection & Use Inspection is completed prior to use of all scaffolding. This covers activities prior to erection, inspection and use.

Form-0049 records the results of inspections on swing stages and man cages.

Form-0059 Public Safety Inspection is used to ensure there are no dangers to the public. This should be done as frequently as deemed necessary. If there are large numbers of the public in and around the site, inspection may be required multiple times per day. For construction sites more removed from the general public this inspection may only be required weekly.

Form-0060 Fall Protection Equipment Inspection ensures fall protection equipment used is in good condition. This inspection should be completed for each sub-trade which comes on site near the start of their contract. Any deficiencies noted must be discussed with the appropriate supervisor and a plan to correct the deficiencies must be noted. Follow-up by the safety representative is imperative for this inspection to be meaningful. One form is completed for each set of equipment in.

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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

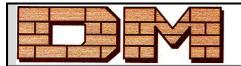
Management is responsible for reviewing workplace-specific written fall protection job procedures prior to implementation and annually thereafter.

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.

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- 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 on or near an exposed 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 devise 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.

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- 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.
- 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.
- 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.



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- 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 body harness components which have been involved in a fall.
- 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 310 pounds. If combined weight is more than 310 pounds, 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 personal. 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.

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Occupational Health & Safety Program

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.

9 FORMS

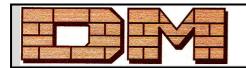
Form-0011 is used to record the elements of the site specific fall protection plan. Contractors are required to have a fall protection plan on site if their workers will be exposed to fall hazards. This form can be used to assist the employer in developing a fall protection plan for their workers to follow on our construction sites.

Form-0012 is used to record fall protection training received by a worker. If a contractor does not have a fall protection training record they should use this version. The minimum elements of knowledge for construction are included in the form.

Form-0060 is used to record equipment inspection results and retained on site for review by authorized personnel.

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Occupational Health & Safety Program

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.
- 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.
- 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

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Occupational Health & Safety Program

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.

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Occupational Health & Safety Program

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 OH&S recognized tester 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 on file as well as at the employee's head office for the duration of the employee's tenure. We will also ensure that a copy of all our worker hearing tests are sent to OH&S.
- 4. Test records will be maintained in a manner acceptable to the OH&S and kept as long as the worker is employed with us. Those records will be treated as confidential and will not to be released without written permission from the worker.

It is the responsibility of the workers to bring their hearing protection to their annual hearing retest so that the fit can be assessed yearly.

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.

Occupational Health & Safety Program

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, it will be provided

Part 5.5 of the OH&S Regulation

1 POLICY

On October 31 1988, federal and provincial legislation in acted the Workplace Hazardous Materials Information System. WHMIS is an encompassing and systematic approach to educate workers to the hazardous materials found around them, to the proper procedure for handling these materials, and to the correct application of first aid when required. The goal of this legislation is to reduce illness and injuries caused by hazardous materials.

All of our employees and sub-contractors are to promote and sustain an effective application of the WHMIS program. The program is to ensure that workers receive the fullest knowledge and protection in the handling of products, which could be harmful to their health.

All controlled products entering the jobsite are to have proper labels and identifying symbols attached to each container and current Material Safety Data Sheets (MSDS) on the product are available and circulated to all of our work sites.

Workers are to be properly trained to identify labels and to understand risk phrases; to be able to understand applicable sections of MSDS; to implement emergency procedures as necessary and understand problems associated with the handling of controlled products. Workers must follow all the established procedures for the use, storage, and handling of controlled products including, when required, the wearing of proper Personal Protective Equipment.

Site Safety Officers will keep current copies of all MSDS and be fully aware of emergency treatment for workers exposed to hazardous amounts of a controlled product.

Strict compliance with the WHMIS regulations ensures workers have the most protection when handling products which could endanger their health.

2 EMPLOYER RESPONSIBILITIES

WHMIS employer responsibilities are in 3 main categories, Labels, Material Safety Data Sheets, and Worker Education. The Superintendent, Supervisor, and Site Safety Officer are to implement and enforce procedure on site for:

2.1 WHMIS LABELS

Part 5.8 to 5.9 of the OH&S Regulation

WHMIS has established Federal standards for manufacturers, suppliers, and employers to identify hazardous materials through the use of labels. It is mandatory that hazardous materials be effectively packaged and has visually prominent WHMIS Labels identify the product name, hazard statement, hazard symbols, safe handling instructions, and first aid instructions. Site supervisors are to:

- 1. Ensure that all workers who work with or in proximity to controlled products are instructed in the content, purpose, and significance of supplier and workplace labels and other identifiers.
- 2. Ensure that a controlled product or the container of a controlled product has the proper label applied at the time of entry into the workplace.
- 3. Ensure no controlled product is used or handled without the proper label.

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- 4. Take measures to ensure supplier labels are not removed, defaced or altered.
- Develop and apply workplace labels to controlled products or container of controlled products where:
 - The employer produces a controlled product in the workplace.
 - An existing supplier label becomes illegible, or is accidentally removed and a replacement supplier label is not available.
 - When a controlled product is decanted (transferred from its original container to any other container, IE: form oil, and gasoline).
- 6. For controlled products which are not delivered in a container, (IE: concrete), provide and place a placard, which need not be a label, and which lists the information required for a workplace label and is of a sufficient size and located in such a way that the placard's information is conspicuous and clearly identifies the hazards of the material.

2.2 PURCHASING

At the time of ordering any new materials, the supplier must be requested to identify which products, if any, are covered by hazardous materials legislation.

Where multiple products that are used for the same purpose are available, the least hazardous material will be obtained if practicable. All WHMIS controlled hazardous materials ordered through central purchasing or ordered directly to a project location may only be accepted if accompanied with applicable labeling and MSDS.

2.3 WORK PROCEDURES AND CONTROLS

Supervisory personnel/sub contractors are responsible for monitoring storage, handling and use of controlled products on their work sites as part of their daily and bi-weekly inspections. Monitoring will take into account the physical and health hazards of the product, quantities, work processes, location of use, etc.

On the basis of WHMIS and other workplace information, Management, in cooperation with suppliers, will develop work procedures that ensure worker health and safety.

Hazard control measures may include:

- 1. Engineering controls such as ventilation, process modification or hazard isolation,
- Administrative controls such as work procedures, storage arrangements, maintenance and shift scheduling, personal protective equipment such as respirators, gloves and protective clothing.

2.4 MATERIAL SAFETY DATA SHEET

Part 5.16 of the OH&S Regulation

Controlled products must be supplied with an MSDS including product identifier, hazard ingredients, physical data proportions/parameters, fire/explosion hazards, reactive data, toxicology properties, handling measures, and detailed first aid measures. Supervisors are to:

- 1. Obtain up-to-date Material Safety Data Sheet before product is used or handled.
- 2. Ensure that supplier MSDS is not more than 3 years old.
- 3. Develop an employer MSDS if the controlled product is produced in the workplace.
- 4. Update MSDS:
 - Within 90 days of receiving new information about product.
 - At least every 3 years.
- 5. Make sure MSDS "Readily Available" to:
 - All workers "with or in proximity to" controlled products during each work shift.
 - Occupational Safety & Health Committee or representative.
- 6. Ensure workers are informed regarding:

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- Content required on MSDS.
- The purpose and significance of the information

2.5 WORKER EDUCATION

Part 5.6 of the OH&S Regulation

Instruction on the WHMIS program, Labels, and MSDS, is to start with an employee's orientation and be substantiated with a formal review of WHMIS with all employees annually.

When new products enter the job site, specific instruction is to be given to all employees at the next tool box meeting, including identification of the product, hazard symbols, safe handling and first aid procedures, and the addition of the MSDS to site records.

3 WORKER RESPONSIBILITIES

If a worker demonstrates unwillingness to follow established standards will be subject to disciplinary action. The Workers responsibilities are;

- 1. Know and understand;
 - The content information that should appear on supplier labels and workplace labels, including the requirements for information on the availability of MSDS.
 - The significance for worker health and safety of information on the WHMIS Program and other written or symbolic means of identification
 - Procedures for the safe use, storage, handling, and disposal of controlled products; procedures to be followed when fugitive emissions are present, or in an emergency which involves controlled products.
- 2. Handle controlled products in accordance with the WHMIS standards as identified on Labels and MSDS and any applicable Safe Work Procedures.
- 3. Follow Superintendent, Supervisor, and Site Safety Officer directives to avoid removing, defacing or altering the WHMIS Program.
- 4. Inform Superintendent or Site Safety Officer of the presence of the WHMIS Labels or MSDS and other identifiers, which are illegible or have been accidentally removed. See point 6 below for more details on labeling.
- 5. Wear the appropriate personal protective equipment.

4 HAZARD SYMBOLS



Oxidizing Material

These materials react chemically with many other materials such as cleaners, greases, oils, etc. causing enough heat to spontaneously combust or ignite surrounding materials.



Corrosive Material

Due to their acidic or alkaline nature these materials can corrode metal and burn skin, eyes and other tissue resulting in permanent scarring or blindness. Identified by "pH" (0-5 acid, 9-14 base).



Compressed Gas

These materials include compressed gases, dissolved gases and gases liquefied by compression or refrigeration. Puncturing, heating or damaging the material container may result in explosion.

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Occupational Health & Safety Program



Flammable & Combustible Material

These materials are very hazardous due to their ease of flammability and ability to create an explosive atmosphere. Ensure there is good ventilation and remove all ignition sources. Water may be a poor extinguishing agent.



Poisonous & Infectious Material (1)

Exposure to these very toxic materials may result in serious irreversible health effects such as: cancer, birth defects, genetic damage, lung, skin or eye injury. Many of these materials may enter the body through skin absorption or breathing.



Poisonous & Infectious Material (2)

Exposure to these toxic materials may cause immediate eye, skin or lung irritation. Serious permanent health effects may result from long term or repeated exposure.



Poisonous & Infectious Material (3)

Exposure to these toxic materials may result in disease or infection.



Dangerously Reactive Material

Improper handling of these materials may result in fire, explosion, the production of dangerous toxic gas or other hazardous conditions as a result of decomposition, shock, temperature or pressure changes or exposure to other substances.

5 PROCEDURE

Before controlled products are brought on site, every reasonable effort will be made to find a less hazardous alternative.

Exposure will be controlled by the following methods in order of preference:

- 1. Substitution such as selecting a less harmful product.
- 2. Engineering controls such as fans for ventilation.
- 3. Administrative controls such as containment or isolation.
- 4. PPE such as the use of air purifying respirators or impervious clothing.

6 EXAMPLE OF CONTAINER LABELS

Part 5.10 of the OH&S Regulation

Figure 1 on the following page shows some examples of how hazardous materials should be labeled in the workplace. Each label should identify the product, and warn of its hazards. The purpose of labeling the product is to prevent confusion and unnecessary exposures. See the following page for an example of this procedure.

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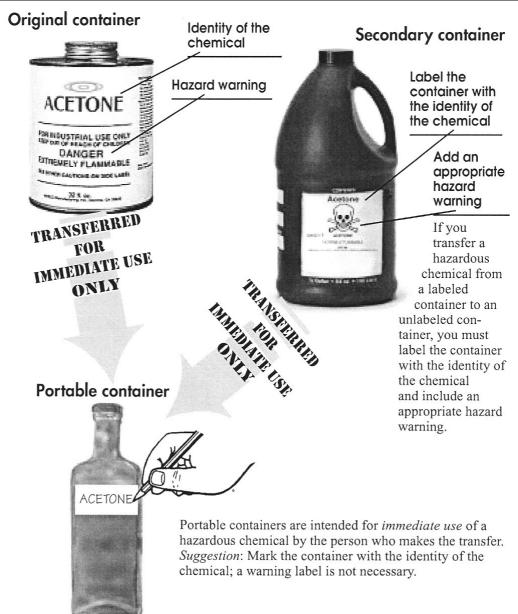


Figure 1 Container Labels



Occupational Health & Safety Program

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.

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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

- Equipment grounding conductors are tested for continuity, and must be electrically continuous.
- All receptacles mounted on portable power distribution equipment must be inspected and tested.
- 3. Each receptacle and attachment cap or plus 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,	April, May, June	July, August,	October, November,
March		September	December

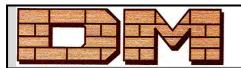
As an example, a new extension cord tested on February 8th will have a red tag at the male plug. The extension cords must be re-tested and marked with a white tag during April.

3 FORMS

Form-0078 is used to record the completion of the quarterly inspection of all electrical tools and power cords on site. This form should be submitted to the CSO or site superintendent within the first two (2) weeks of the applicable inspection period.

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Occupational Health & Safety Program

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%

Part 8.32 of the OH&S Regulation

1 PURPOSE & RESPONSIBILITIES

1.1 PURPOSE OF THE RPP

The Respiratory Protection Program (RPP) is in place to ensure worker exposure to known breathing hazards is reduced to safe levels.

This plan addresses the most common hazards such as:

- 1. Wood dust.
- 2. Silica dust.
- 3. 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

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

As much as is possible, potentially harmful contaminants will be eliminated through mechanical means (ventilation, local suction systems, product isolation, product substitution, etc.). When preferred means of controlling atmospheric hazards is impossible, utilisation of proper respiratory equipment is mandatory.

All Respiratory Equipment, accessories, and maintenance materials are supplied free of charge to employees. Filtering Cartridges are supplied as required.

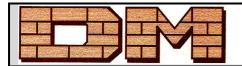
We will actively promote;

- 1. Safe working behaviours.
- 2. Continuous process improvement.
- 3. Require each employee's full participation and responsibility for their actions.
- 4. Demonstrate firm leadership to reach our goal of zero work related accidents or illness.

This program will be implemented in the workplace in accordance with the following principles;

- 1. A Work Safe Attitude as a condition of employment.
- 2. Health and Safety will be integrated in everything we do.
- 3. All types of incidents can be avoided.
- 4. It is possible to set forth protective measures for each dangerous condition.
- 5. Each employee is provided all necessary tools (training/development, skills and competences) and a workplace which allows them to work safely.
- 6. Management of Health and Safety is the responsibility of all Managers and their representatives, regardless of their level.
- 7. Communication plays an essential role for Health and Safety.
- 8. Success in Health and Safety cannot be achieved without the full engagement and active participation of Management, their representatives and all employees.
- 9. Each deficiency must be addressed immediately or as soon as possible.

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Occupational Health & Safety Program

1.3 EMPLOYER'S RESPONSIBILITIES

Employers must ensure their employees have an understanding of respirators and their usefulness in a variety of areas. The following points are the responsibilities of the employer;

- 1. Assessing the type and amount of exposure to respiratory hazards.
- 2. Selecting the appropriate respirator.
- 3. Implementing training and instruction programs
- 4. Ensuring that supervisory personnel are provided with a copy of this document.
- 5. Instructing supervisory personnel to keep a copy of this document available for all employees required to wear respirators.
- 6. Ensuring that employees properly use and maintain equipment as required.
- 7. Inspection of respirators on a regular schedule.
- 8. Administering and evaluating the program and its effectiveness annually.
- 9. Ensuring that respirators are available as needed.

1.3.1 RPP ADMINISTRATOR'S RESPONSIBILITIES

RPP administration consists primarily of ensuring that the program is implemented in the workplace and that it is effective. The RPP administrator may enlist external parties to evaluate work environments to ensure that there are no hazards posing a risk to workers this program does not address.

As required the RPP administrator will upgrade the program and ensure any changes are relayed to all workers impacted by this program.

1.4 SUPERVISOR'S RESPONSIBILITIES

The supervisor must ensure that appropriate personal protective equipment is;

- 1. Available to workers.
- 2. Properly worn when required.
- 3. Properly cleaned, inspected, maintained and stored.

1.5 WORKER'S RESPONSIBILITIES

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

- 1. Use the equipment in accordance with training and instruction.
- 2. Inspect the equipment before use.
- Workers required to wear respirators must be clean shaven in the areas where the respirator contacts the skin.
- 4. Refrain from wearing protective equipment outside of the work area where it is required if to do so would constitute a hazard.
- 5. 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.

1.6 JOINT HEALTH AND SAFETY COMMITTEE

The Safety Committee's primary responsibility is to choose and approve the required Respiratory Equipment used on site. Prior to selection, a hazard assessment must be conducted to evaluate the hazards which may be present in the workplace.

Air quality should be evaluated as part of the assessment. The results form the basis for selecting the appropriate respirator for use in the workplace. Testing should be conducted at various locations in the workplace where air quality may pose a hazard.

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Ongoing air quality evaluation may be required if there is a suspicion that air quality may be diminished due to work processes or other hazards such as controlled products.

2 HAZARD ASSESSMENT

2.1 CONTAMINATE IDENTIFICATION

Did you know the most hazardous part of dust is not what you can see but what you cannot see?

The primary air contaminates found in workplaces will be comprised of dust. Of most concern is Silica dust, whose primary source is from cement. Any worker directly in contact with cement is exposed to this dust and, therefore, must have the appropriate respiratory protection.

Other forms are less harmful but still hazardous, such as respiratory track irritation.

Other types of air contaminates are those which come from controlled substances. 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.

2.2 APPROVED RESPIRATOR & FILTERS/CARTRIDGES

2.2.1 RESPIRATORS

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

The following air purifying respirators are approved for use in the workplace;

- 1. North 7700 Half face mask
- 2. North 7600 Full face mask
- 3. North 5400 Full face mask
- 4. Survivair Optifit Full face mask

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.

2.2.2 FILTERS & CARTRIDGES

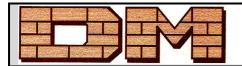
Did you know that there are some substances that give off vapours that are difficult to smell?

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 either 95% effective, 97% effective or 99.7% effective. 99.7% effective 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 a N^1 , R or P rating and must be 100% efficient (i.e. HEPA²). For example we generally issue P-100 filters on respirators worn by cement finishers as they may be exposed to oils in the workplace.

¹ N refers to 'Not oil proof', R refers to 'Resistant to Oil', P refers to 'Oil Proof' and indicates where the filter can be safely used. If we are working in an area where there is the possibility of exposure to oil (i.e. form release oil) then an R or P type filter should be used.

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Cartridges are used to purify air by removing smoke, fumes or vapours. Cartridges are comprised of a mixture of substances which have been shown to effectively remove substances from the air. A well known example is a carbon filter. Cartridges come 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.

Important points to observe if gas and vapour cartridges are fitted to the workers respirator;

- 1. Do not use in oxygen-deficient situations (less than 19.5% oxygen).
- 2. Do not use to protect against dusts, mists, and fumes unless fitted with a pre-filter.
- 3. Do not use to protect against toxic gases/vapours, such as ethylene oxide or cyanides.
- 4. Do not use when contaminant concentration is above the maximum use concentration (see the manufacturer's instructions)
- 5. Do not use when gases/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

3 TRAINING

Employers must ensure workers required to wear a respirator are trained, including:

- 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 employees remain familiar with the proper use of respirators. A record of this training must be kept on file

3.1 SAFE USE OF RESPIRATORS

Use of respirators protects workers from identified hazards such as controlled substances or Silica dust. To have the maximum degree of protection these points will be followed;

- 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.

² HEPA – High Efficiency Particulate Arrestor



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- 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, checking 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.
- 9. A fit test must be performed annually.
- 10. High contaminant levels and factors such as high humidity can affect the filter and/or cartridge. Ensure filter life is monitored and filters are changed as required.
- 11. The cartridge should be changed when the user feels 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. Always refer to the manufacturer's respirator instruction manual for further information.
- 13. Employees who cannot achieve a proper fit cannot perform tasks requiring respirators.
- 14. Management determines if a worker is permitted to do work requiring respirators. If any doubt on ability to wear a respiratort, the employee is to be examined by a physician. Certain medical conditions may affect the employee's ability to wear a respirator, such as lung (e.g. asthma, emphysema), or heart disease.

3.1.1 DONNING & ADJUSTING

Respirator must be inspected before and after each use to insure at it is in good working condition.

Don a half mask respirator as follows;

- 1. Remove eyewear (if worn), grasp the front with one hand and the upper headband with the other. Place the portion of the facepiece containing the exhalation valve under your chin.
- 2. Position the narrow portion of the respirator on your nose bridge and place the cradle suspension system on your head so that the top headband rests across the top of your head and the bottom headband rests above your ears, on the back of your head. Then hook the bottom headband behind your neck, below your ears, and adjust the position of the facepiece on your face for best fit and comfort.
- 3. The headband length is adjustable; tighten or loosen by holding the respirator body or headband yoke with one hand and pulling on the elastic material with the other.

For a comfortable fit, the headbands must be adjusted equally on both sides of the respirator.



- 4. Position the facepiece so the nose section rests as low on the bridge of your nose as comfortable; tighten the upper headband on both sides enough so the respirator doesn't slide down. Do not over tighten. If the respirator pinches your nose, loosen the upper headband slightly.
- 5. Tighten the lower headband on both sides just enough to secure under your chin.

For proper positioning and comfort, adjust the upper headband first then the lower headband.



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- 6. If you previously removed your eyewear, put it back on at this time.
- 7. Conduct a positive or negative seal check as detailed in section 3.1.2 below.

Don a full face mask respirator as follows;

- 1. Adjust all the facepiece head straps to their full outward position.
- 2. Put on the facepiece 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 facepiece 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 3.1.2.

3.1.2 USER FIT TESTS

Did you know the purpose of the positive and negative fit test is to ensure all aspects of the respirator are functioning correctly – the respirator, filters or cartridges, valves, harness, and the seal between the body of the respirator and your face?

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

The positive test ensures the seal between the face and respirator body is not broken when exhaling normally. The test is performed after the mask has been donned and adjusted for fit by the worker (section 3.1.1).

The worker places a hand over the exhalation valve in front of the respirator and breaths out normally. There should be a delay in breaking the seal between the worker's face and respirator. If there is no delay, the mask has not be seated or adjusted adequately. Adjust the mask and repeat the test.

The negative test ensures the seal between the worker's face and respirator body is not broken when inhaling normally. Once the respirator is donned and adjusted, cover both filters and breathe in normally. The respirator body should compress onto the face. If this does not happen the respirator is not adequately seated or adjusted. Adjust the mask and repeat the test.



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.

3.2 GETTING A GOOD SEAL

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



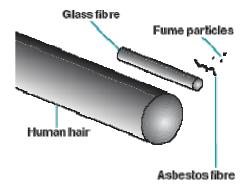
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Workers must be clean-shaven where the respirator seals with the face. Some workers think

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 is huge when compared with dust, mist, fibres, fume particles, and gas and vapour molecules. Stubble creates plenty of room for contaminants to enter the mask.

Prescription eyeglasses may need special frames to use with a full-facepiece respirator so they do not affect the seal. Contact lenses can be worn with a full-facepiece if all of the following precautions are taken:



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

3.3 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. One such location is when cement finishers are working in stairwells.

During initial fit testing a number of different sized respirators will be available to ensure workers are issued with a respirator which fits properly and will occur during annual fit testing.

3.4 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 the filter in oil-proof and is 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 contaminates in the air which the filter cannot effectively remove.

Such contaminants could be exhaust from vehicles or potentially harmful fumes or vapours from products that are being used. Waterproofing agents can have these characteristics.

Write the date that the filter or cartridge was put into service. 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.

3.4.1 WARNING PROPERTIES

The primary method for determining if a filter is ready to be changed is increased difficulty in breathing. The filter prevents particles such as Silica from passing through the filtering material. At some point the filtering material becomes saturated and the small holes in the material become blocked.

Another indication is to note any taste or feeling in the worker's mouth or residual material around the workers nose or mouth.

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To safely use respirators fitted with gas and vapour cartridges, the contaminant must have warning properties indicating the cartridge is no longer working. You must be able to sense the contaminant (by smell, taste, or breathing irritation) when it starts to penetrate the cartridge. An exception is cartridges used for escape even if the warning properties are poor. Different contaminants have different warning properties. Some gases and vapours have poor warning properties.

Odour can sometimes be used as a warning property. Be aware that different contaminants have different odour thresholds. Odour threshold is defined as the lowest concentration of a contaminant in the air that can be detected by the human sense of smell.

If you are relying on odour as a warning property, the odour threshold of a contaminant must be below its exposure limit. The exposure limit is the maximum concentration of a contaminant that workers are allowed to be exposed to without respiratory protection.

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

Replace the cartridge right away if you experience any breakthrough warning signs. Make sure you know what to expect from the contaminant that may be present at your worksite. Your cartridge needs to be replaced if:

- You smell or taste the contaminant through your respirator
- Your throat or lungs feel irritated

3.5 FIT TESTING

Before using air purifying respirators for the first time, workers must be trained in safe use;

- 1. Ensure the mask is placed squarely on the face.
- 2. All workers must be clean shaven before wearing a tight fitting air purifying respirator.
- 3. Breathe normally when wearing the respirator. If breathing is 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 ensure cartridges/filters are properly attached 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 Surviair cartridges and filters are not compatible.
- 10. Do not use air purifying respirators in oxygen deficient environments

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 required to ensure a respirator protects 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 worker protection. Qualitative fit testing checks for proper seal against the mask and face through use of either a vapour and/or smoke. The general procedure is;

- 1. User dons either the half or full facemask and adjusts it so it sits comfortably on the face. The tester will inspect the fit to ensure it looks adequate.
- 2. The user does a positive and negative fit test. Before the remainder of the test can be conducted the worker must pass these tests. If the worker cannot obtain an adequate seal, the mask may be too big, too small, or other issues such as the mask body may have a leak or the filters or cartridges may not be seated properly.

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If using a vapour to conduct the test it is important to have an organic gas vapour cartridge fitted to the respirator. If smoke will be used during the test P-100 filters are sufficient.

- 1. 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 normally
 - c. Worker breaths deeply
 - d. Worker turns head from side to side
 - e. Worker nods head up and down
 - f. Worker is engaged in conversation
- 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 not effects are felt by the worker then the test was successful for that mask and a pass is granted.
- 3. Each mask that the worker is assigned to wear should be testing in the same manner.

3.6 INSPECTION, CLEANING, STORAGE & MAINTENANCE

3.6.1 INSPECTION

Before using an air purifying respirator it must be inspected to ensure it is not damaged:

- 1. All components of the mask are fitted (straps, valves, etc...).
- 2. The body has no rips, tears, holes, excessive wear points, creases, and all strap mountings are secure.
- 3. The straps are not excessively worn or stretched.
- 4. Filters and cartridges are fitted correctly and they have not expired or are not overused.

Monthly the respirator should be disassembled and all components inspected for damage or wear. This inspection should be done during cleaning.

Detailed inspection is based on usage. If a respirator is being used frequently or it is being used by different workers it should be inspected more often.

3.6.2 CLEANING

Respirators should be wiped down at the end of the shift by using water and a clean, dry cloth or towel. Ensure all visible dust or residue is removed from the inside and out and that the respirator is completely dry, particularly on the inside.

At least monthly if required, the respirator should be fully disassembled and cleaned in warm water and a mild detergent. Use a brush to reach tight areas.

Did you know you should perform positive and negative fit tests after respiratory assembly to ensure all components assembled correctly?

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 attention to how each component is seated. Workers must ensure each component is seated properly to ensure adequate protection.

3.6.3 STORAGE

Respirators should be stored assembled and dry in a clean bag made of cloth or plastic. Do not store filters or cartridges with respirators; they will contaminate the mask. Store filters or cartridges separately in plastic bags until required.

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Do not hang a respirator by its harness; this damages the harness and makes attaining a proper seal difficult or impossible.

3.6.4 MAINTENANCE

Routine maintenance should be completed by workers as required. If a respirator requires a replacement part they must be ordered by using **Form-0000** and submitted to the supervisor.

Replacement respirators should be on hand for loan to workers requiring replacement components. When the replacement parts have been installed and the respirator fit tested, the loaner respirator must be returned cleaned and in the original packaging.

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

With this information, the doctor advises 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

if a worker has facial injuries/scars or wear dentures, it could be difficult to fit a respirator. If workers have prescription glasses, special frames are needed with some types of full-facepiece respirators. An impaired or nonexistent sense of smell may prevent workers from detecting when a contaminant is leaking into the facepiece. These factors should be taken into account when fitting and using a respirator.

5 RECORD KEEPING

Fit testing must be done at least annually, and written records of the results will be kept on site and with our Safety Manager. **Form-0038** records results of respirator training and fit testing.

6 PROGRAM REVIEW

The respirator program will be reviewed annually.

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Occupational Health & Safety Program

EXPOSURE CONTROL PLAN – SILICA DUST

Key Points ☑ Silica dust is present in all aspects of construction Overexposure is Silicosis, a disease with no cure Exposure limits are 0.025mg/m³ over an eight hour period

1 HAZARD IDENTIFICATION

1.1 OBJECTIVES

Employers have a duty to protect workers and the general public from silica exposure on construction projects. This duty extends to all personnel working on a job site who 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 respirable3 form.

1.2 HAZARD IDENTIFICATION

The dust produced from cement and concrete finishing is referred to as crystalline silica. Silica exists in many forms of which crystalline silica is of the most concern. There is varying amounts of silica in cement, determined primarily by the type of aggregate used.

Exposure to crystalline silica can result in both respiratory and non-respiratory health effects. Of the respiratory effects, silicosis is one of the most documented occupational diseases. Silica is a designated substance⁴ and, as such, there are precautions that the employer must take when there is a risk of silica exposure on a work site.

Throughout this ECP, silica dust will be used when referring to silica (crystalline, quartz).

1.3 SILICA IN CONSTRUCTION

In construction, worker exposure to silica dust is of particular concern because silica is the primary component of many construction materials. Some commonly used construction materials containing silica include:

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

Many construction activities can generate airborne silica-containing dust. In construction, abrasive blasting generates the most dust. Other activities that generate airborne dust include:

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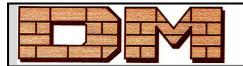
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³ "Respirable" means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that,

 ⁽a) meets the American Conference of Governmental Industrial Hygienists (ACGIH) particle sizeselective criteria, and

⁽b) has the cut point of 4 microns at 50 per cent collective efficiency.

⁴ Designated Substance is one that is deemed to be carcinogenic by the ACGIH or IARC and is identified by either A1 or A2 (ACGIH), or 1, 2A or 2B (IARC)



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- 1. chipping, hammering, and drilling of rock
- 2. crushing, loading, hauling, and dumping of rock
- 3. sawing, hammering, drilling, grinding, and chipping of concrete or masonry structures
- 4. demolition of concrete and masonry structures
- 5. sanding drywall
- clean-up activities such as dry sweeping or pressurized air blowing of concrete, rock, or sand dust
- 7. road construction
- 8. hand mixing of concrete
- 9. excavation and earth moving of soils with high silica content

1.4 EXPOSURE LIMITS

Assigned exposure limit (ACGIH (TLV_TWA)) for crystalline silica (quartz) (2003) is 0.025 mg/m3 (^{5R})³. Silica also contains an A2 designation (suspected human carcinogen) as listed by the IARC (International Agency for Research on Cancer).

Studies show that when construction work tasks such as those listed above, are conducted without using effective engineering controls, workers are exposed to airborne silica at levels well in excess of this exposure limit.

Part 5.57 of the OH&S Regulation

For designated substances such as crystalline silica, Section 5.57 of the OH&S 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.

2 RESPONSIBILITIES

2.1 GENERAL

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

The release of respirable silica into the local environment in such quantities as to pose a significant hazard to unsuspecting workers or civilians, both at or near the workplace, must be avoided. Specific notification measures are detailed, but efforts should be made to limit exposure to anyone not able to adequately protect themselves.

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).

2.2 MANAGEMENT

 Coordinating with the prime contractor and other employers to ensure a safe environment, including notifying all workers on site, actual or potential, of the presence of crystalline silica and safety requirements required while on site.

³ Respirable particle mass concentration



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- 2. Providing a job-specific safe work procedures for each project to deal with the hazards and risks associated with concrete finishing operations
- 3. 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
- 4. Ensuring that personal protective equipment is readily available and used and mechanical ventilation equipment is provided and used where deemed necessary
- 5. Ensuring supervisors and workers are educated and trained to competent levels
- 6. Maintaining records of training, fit-test results, crew talks, and inspections

2.3 SUPERVISORS

- Providing adequate instruction to workers on the hazards associated with cement or concrete finishing and on the precautions specified in the job-specific plan covering hazards at the location
- 2. Selecting and implementing the appropriate control measures
- 3. Ensuring workers using respirators have been properly fit-tested and the results are recorded. The fit-test and results recording is generally done by the CSO on site
- 4. Directing the work in a manner ensuring risk is minimized and adequately controlled
- 5. Liaising with the prime contractor and other contractors to ensure a safe environment

2.4 WORKERS

- 1. Using the assigned protective equipment in an effective and safe manner
- 2. Setting up the operation in accordance with the site-specific plan
- 3. Following established work procedures as directed by the supervisor
- 4. 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
- 5. Reporting any unsafe conditions or acts to the supervisor

3 RISK ASSESSMENT

3.1 A POTENTIALLY DANGEROUS HAZARD - SILICA

Part 5.53(a) of the OH&S Regulation

The prolonged inhalation of respirable dust containing crystalline silica may result in silicosis, a disease characterized by progressive scarring and damage to the lungs. A pneumoconiosis (lung disease caused by the inhalation of dust), silicosis is marked by shortness of breath and impaired lung function which may give rise to complications that can result in death. The development and the severity of silicosis depends on the airborne concentration of silica dust to which a worker is exposed and the duration of exposure.

The International Agency for Research on Cancer (IARC) has concluded that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans and has classified these forms of silica as Group 1 carcinogens. In addition, the American Conference of Governmental Industrial Hygienists (ACGIH) has classified quartz as a suspected human carcinogen with an A2 classification

Crystalline silica is harmful following high exposure levels over a period, ranging from a few weeks to years or after long-term exposures to lower levels. There is no medical treatment available for silicosis. There are three major types of silicosis: chronic, accelerated, and acute.

Workers who are continually exposed to environments where significant levels of Silica dust are being generated should take proactive measures by visiting their physician annually for a routine checkup and to discuss any abnormal symptoms that may be a result of exposure.

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The worker has the responsibility and the obligation to be the first line of defense against the possible side effects of Silica dust.

3.2 SILICOSIS

3.2.1 CHRONIC SILICOSIS

Chronic silicosis is most common. Symptoms may not appear for a long time, usually more than 10 years, and may progress and worsen over a period of many years. Chronic silicosis may be either a simple or a complicated type.

Effects of silicosis continue to develop after the exposure ceases and they are irreversible. In addition, the progression of lung fibrosis can also lead to the development of lung cancer

3.2.2 ACCELERATED SILICOSIS

Accelerated silicosis is almost the same as chronic silicosis. However, it develops more quickly and the lung scars show up sooner. Accelerated silicosis can develop when exposure to large amounts of silica dust occurs over a short time period. Nodules may appear on a chest x-ray five years after the first exposure to silica dust and the disease can quickly worsen.

3.2.3 ACUTE SILICOSIS

Acute silicosis is a lung disease that develops rapidly. As few as 8 to 18 months may elapse from the time of first exposure to the onset of symptoms, which include progressive shortness of breath, fever, cough and weight loss. There is a rapid progression of respiratory failure usually resulting in death within one or two years.

4 EXPOSURE CONTROL MEASURES

4.1 GENERAL

Part 5.55 of the OH&S Regulation

Studies show that when construction work tasks, such as those previously listed, are conducted without using effective exposure control measures, workers are exposed to airborne silica at levels well in excess of the exposure limit for silica. Studies show that work activities conducted both indoors and outdoors can result in excessive worker exposure to silica and so under both conditions control measures must be implemented.

In addition public areas, either inside or outside the work zone, can become hazardous as a result of silica dust producing operations.

In order for silica to be a hazard, silica-containing dust particles that are small enough to be inhaled (i.e., respirable) must get into the air. Respirable dust at the level of the exposure limit can not be seen by the human eye and so an absence of visible dust does not indicate that exposure limits are not being exceeded. The strategy for controlling the silica hazard can be broken down into four basic approaches:

- 6. Eliminate the need to perform work which generates silica dust
- 7. Prevent silica dust from getting into the workplace air: control at the source
- 8. Dilute silica dust present in the air
- 9. Provide protection to workers to protect them from excessive exposure to silica dust.

Workers generating Silica dust must be aware of potential risks associated with the hazard they are creating. Workers must ensure all reasonable steps are taken to minimize risk of exposure.

4.2 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



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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.

4.3 CONTROL MEASURE HIERARCHY

To eliminate or reduce worker exposure to harmful silica dust it is essential to implement effective control measures. For example, local exhaust ventilation controls are intended to control concrete dust at it source while administrative controls may be selected to ensure that work activities are coordinated so that unprotected workers are instructed about the dusty work and restricted from entering these work locations. It will often be necessary to select a combination of control measures to effectively manage worker exposure.

Controls should be selected in accordance with the following hierarchy:

- 1. Elimination
- 2. Engineering controls
- 3. Administrative Controls
- 4. Respirators and Personal Protective Equipment

Appendix A offers guidance on the selection of controls for various tasks.

4.4 SELECTING CONTROL MEASURES

Selection of the control measure depends on 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 before selecting a control measure. It may be found, for certain locations, a particular control measure may not be suitable. In these 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.

The use of water and large volume exhaust fans for silica dust control are methods that should be looked at in terms of the surrounding area and not just the work area. Efforts should be taken, as much as practical, to ensure removing the hazard from one area will not allow another to become hazardous or contaminated.

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.

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4.5 ELIMINATION

When possible, avoid the need to perform work which generates silica dust. For example, using forms which will create holes in the slab is one method of reducing the need for drilling.

4.6 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.

4.6.1 LOCAL EXHAUST VENTILATION (LEV)

The highest exposure levels to silica are often associated with the preparation of concrete surfaces using a hand-held grinder.

Site observations and conversations with construction industry professionals indicate that the grinding of concrete surfaces is common to most commercial structures that use concrete as a building material. Therefore, a high priority needs to be placed on the development and widespread use of engineering controls for reducing silica exposures during surface grinding.

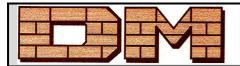
Workers can be overexposed to Silica dust when they are drilling or cutting concrete surfaces as well. Workers who are required to drill into concrete for the placement of anchors for piping will also be exposed to Silica dust. Workers who are involved with drywalling will also be exposed to Silica dust particularly when they are sanding.

The air flow of the mechanical ventilation system should be at least 50 cubic feet per minute per square foot of face area (0.25 m³/s per square meter of face area).

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 (See Appendix A)
- 2. Always use the dust control system and keep it well maintained
- 3. Specify the vacuum systems 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. 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

4.6.2 WETTING METHODS



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Like LEV control, wetting methods⁶ 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.

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.

BARRIERS, ENCLOSURES AND ABATEMENT SYSTEMS

These control methods are used primarily to keep personal out of an area, as in the case of barriers, or contain the hazard to a certain area, as in the case of enclosures, or to remove silica dust from large areas, such as parkades, as in the case of abatement systems.

Barriers and partial enclosures are used to separate the work area from the rest of the project, and in some cases, to prevent silica exposure to other workers not directly involved in the operation.

Ropes or barriers do not prevent the release of contaminated dust or other contaminants into the environment. However, they can be used to restrict access of workers who are not adequately protected with proper PPE, and also prevent the entry of workers not directly involved in the operation.

4.7 ADMINISTRATIVE CONTROLS

Work Planning & Practice controls are those activities that take place which are not directly involved with the work (e.g. concrete grinding) but are, never the less, potentially capable of impacting the overall exposure a worker may experience. Some of these activities are listed below.

4.7.1 **WORK SCHEDULING. PLANNING & COORDINATION**

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

- 1. Coordination amongst involved parties particularly the General Contractor
- 2. Provision of work scheduling which would have concrete grinding operations conducted at a time when there are minimal personnel on site
- 3. Work procedures specifically designed for the operation being conducted
- 4. Warning signs should be posted in sufficient numbers to warn of the silica hazard. There should be a sign, at least, at each entrance to the work area. The signs should display the following information in large, clearly visible letters:
 - There is a silica dust hazard
 - Access to the work area is restricted to authorized persons
 - If respirators must be worn in the work area (e.g. window liner installers, window installers, plumbers working in the vicinity of cement finishing)

PERSONAL HYGIENE 4.7.2

Hygiene practices are on-the-job activities that protect workers from breathing silica dust which is introduced into the air from contaminated surfaces and work clothing and equipment. Silica can also accumulate on the hands, clothing and hair. From there it can be disturbed, re-

⁶ Water spray can effectively reduce exposure levels, but is not feasible in many applications because water can result in material discoloration and expansion, building damage and wastewater disposal problems. Use of water spray control also presents potential safety hazards, which include electrocution, slipping and potentially hypothermia.



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suspended in air and inhaled. It is therefore important to follow good work and hygiene practices whenever silica is present.

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. Personal cleaning procedures as defined by company SOP must be completed prior to entering common areas. This also applies to public areas not directly associated with the work site.

4.7.3 SITE CLEAN-UP

Good housekeeping is important wherever silica dust is generated. Containers of silicacontaining 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 is not permitted. If dry sweeping can not 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;

- 1. Clean-up after each operation prevents 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 PPE and clothing should be handled with care to prevent disturbing the silica dust and the generation of airborne silica dust. Workers should launder work clothing after each shift of dusty work. Contaminated clothing should be bagged for safe transportation prior to leaving the work site.

4.7.4 Personal Protective Equipment

PPE 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 the respirator program for more information.

4.8 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.

4.9 MEDICAL SURVEILLANCE

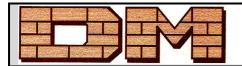
Even with appropriate control measures, some workers may still be affected. Periodic medical examinations are important for determining if the control measures are effective and if workers are suffering from any of the effects of silica exposure. This is known as medical surveillance, and can be considered to be a method of early detection and prevention of silicosis.

Those working with Silica on regularly should have pre-placement medical examinations that include chest X-rays and pulmonary function tests, followed by periodic medical examinations.

The frequency of the periodic examination will depend on the intensity and length of exposure to silica and shall be decided by the examining physician. It need not be the same for all workers but shall be done at least once every two years. See Appendix B for further details.

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5 SAFE WORK PROCEDURE

Part 5.54(2)(d) of the OH&S Regulation

5.1 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.

5.2 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.

5.3 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

5.4 CONTROL MEASURES

5.4.1 HIERARCHY OF CONTROL

Controls methods serve to protect workers from harmful exposure to airborne contaminants. Refer to section 4.3 for details on the control hierarchy.

5.4.2 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.

5.5 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.

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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.

6 HAZARD ASSESSMENT

Prior to any work commencing where Silica dust will be generated supervisors are required to complete a hazard assessment. Form-0076 is a comprehensive form which can be used to conduct a hazard assessment of all the work areas where workers will be.

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.

Form-0076 also has a section for supervisors to monitor the effectiveness of selected controls and other associated work procedures to ensure they are effective.

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APPENDIX A

SILICA CONTROL SELECTION CHART

The table below describes the applicable control measure to be taken for specific tasks relating to concrete finishing. The first column describes a task and the type of control (administrative, engineering) that is being used. The second column describes the control and the third column provides notes and the type of respirator that may be required while a worker is engaged in that task.

Task/Tool	Control Method	Notes (including respirator selection)
Grinding concrete surfaces such as walls or ceilings	LEV Barriers	Local Exhaust Ventilation (LEV) attachments for concrete grinders are readily available for walls and floor grinders. Ensure the use of a properly sized HEPA vacuum system to achieve desired capture/control, to maintain adequate transport velocity and avoid settling and to minimize the duration between filter maintenance.
		Workers must wear half-mask filtering respirator equipped with N-, R, or P- series filter and 100% efficiency.
		Full-face filtering respirator equipped with N-, R, or P- series filter and 100% efficiency may be required when working in an enclosure.
Chip Hammering or Drilling Concrete or Cement	Wet methods may need to be supplemented with a barrier or enclosure system when work is extensive and large amounts of material will be removed.	Workers must wear half-mask or full-face-piece filtering respirator equipped with N-, R, or P-series filter and 100% efficiency when effective LEV or wetting methods used.
		Full enclosure may be required when large area and/or volume of concrete to be removed.
		Barriers or partial enclosure may be permitted when work activity is of limited duration and coordination can arranged to ensure that unprotected workers are well removed from the active work area.
		Full-facepiece supplied-air respirator operated in demand mode or half-mask or full-facepiece supplied air respirator operated in continuous-flow mode when extensive drilling or chip hammering in enclosed locations (e.g. parkade, stairwell) with poor general ventilation and LEV/wet methods not effective.
Jack hammering to break out concrete (open indoor areas)	Wetting concrete and rubble	Workers must wear full-face filtering respirator equipped with N-, R, or P- series filter and 100% efficiency when effective wetting methods are used.
	Barriers to restrict access to work area EV	
	Full enclosure if large area adjacent to occupied areas and unable to adequately wet material.	
Cutting concrete wall/floor	Saw equipped with wetting controls (a water flow rate of 0.5	Workers must wear half-mask or full-face filtering respirator equipped with N-, R, or P- series filter and 100% efficiency when effective wetting

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Task/Tool	Control Method	Notes (including respirator selection)
	gallons/minute is recommended minimum).	methods are used. Full-facepiece supplied-air respirator operated in demand mode or half-mask or full-facepiece supplied air respirator operated iin continuous-flow mode may be required when cutting in enclosed locations (e.g. parkade, stairwell) with poor general ventilation and the work is
	Other means of effective wetting of material during work	
Barrier/Enclosure systems is work is extensive in occupied worksite.	extensive and wetting controls cannot be established.	
Clean-up	Vacuum or wetting	Workers must wear half-mask or full-facepiece filtering respirator equipped with N-, R, or P-series filter and 100% efficiency.
Vacuum bag/filter changing Maintenance of LEV	General ventilation	
	Barriers (e.g. Stairwell during clean-up activity)	A safe work procedure should be available to provide direction for these tasks.

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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

Initial medical and occupational history should include enquiries about 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 frequency and duration of exposure to silica since previous examination;
- 2. signs and symptoms of respiratory disease, e.g., dyspnea, cough, haemoptysis

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 fitness for continued exposure.

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 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 fitness for work should be based on both the clinical examination and test results. No specific action levels are stated for the latter. If silicosis is confirmed, the physician determines whether the worker is fit, has limitations or unfit for further exposure. A worker

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should not be removed from silica exposure before consultation with OH&S. To qualify for compensation or rehabilitation further assessment by OH&S will be necessary.

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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, OH&S, 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 OH&S encourages 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 to OH&S 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 OH&S.

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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 OH&S 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.).

OH&S 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 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 OH&S, or the employer may decide to put the worker back on the payroll to minimize OH&S claims costs, or put the worker on the payroll and be reimbursed by OH&S where an employer pays full or partial wages, this is deducted from the worker's normal OH&S 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 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 OH&S Act.



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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 OH&S sponsored work assessment with an employee 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 Form-0034. This form will allow the Doctor to specify what the limitations are of the worker. The Doctor should also complete Form-0036 which outlines the scope of light duties available on our job sites.

When these forms are completed and returned to us we can use Form-0035 to detail the return to work conditions and the agreement by the worker and approval of the site superintendent.

These forms will be retained in the workers permanent file at our head office.



Occupational Health & Safety Program

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 OH&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 OH&S, 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.

2 IMPLEMENTING A CLAIMS COST MANAGEMENT PROGRAM

2.1 ACTIVITY ONE - EVALUATE YOUR COMPANY'S CURRENT STATE OF AFFAIRS

Review records of compensation costs for the last five to ten years. Examine claims cost statements (sent each month to all employers from OH &S), Experience Rating (ERA) information and assessment records.

Claim cost statements will indicate the need for managing employee claims. They list the names of all employees who have received OH&S benefits, the wage loss period for current claims, and the costs of compensation, rehabilitation and medical aid.

Experience-rating information is found in your annual experience-rating letter from OH&S. The letter identifies the names of all claimants, their claim numbers, and the costs for the two years of claims, which are used by the OH&S to determine your Experience Rated Assessment. (For example: for the 1999 year, the OH&S will send you a list of claims, which occurred in 1996 and 1997. The costs for these claims will include all costs paid up to June of 1998.) Your total assessments paid will also be identified.

A review of Experience Rating information will help identify how much we have paid in assessments, cost changes that have occurred over the years, where costs are incurred and how your company compares with other employers in the same industry classification. The review of these records will also give your company a baseline for charting future progress in cost control.

2.2 ACTIVITY TWO - IMPLEMENT CHANGES

If our claims management program is new or substantial changes are required to bring it up to date, implement change in stages, starting with the basics. Monitor implementation and slow down the pace if it becomes evident employees are overwhelmed by the pace of change, which can result in a backlash effect. Large companies may want to consider a project-specific or geographical area-specific pilot program as an appropriate way to begin the process.

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2.3 ACTIVITY THREE - ASSIGN RESPONSIBILITIES

Each supervisor is responsible for claims Management on his job site and must coordinate with the Safety Consultant to ensure that all activities are consistent. The supervisor must understand that the Safety Consultant will be responsible in regards to who calls OH&S adjudicator, who does follow-up, who contacts the worker, etc. It is essential to check and ensure that each new claim receives the proper attention and investigation.

2.4 ACTIVITY FOUR - IMPLEMENT A FILING SYSTEM

Ideally, each claim should have its own file. Claim files can be maintained separate from the personnel file or you can maintain both the OH&S and personnel file together to assist in establishing dates for sick leave, return to work, changes in work duties, etc.

Claims can be re-opened so active and inactive claims may be filed together. When a new claim comes in for a worker with previous claims, it is a good idea to scan the previous claims for any relevant information. Workers with multiple claims may have an underlying problem unrelated to work activities - contact OH&S to request them to investigate what is happening.

A bring forward filing system (hard copy or computerized) could be used which could tell you if the elements of the claim are moving on schedule. Use the bring forward system to check if the claims adjudicator calls back when promised, to ensure that weekly telephone calls to the injured worker are being made, and confirm that claims benefits end when the worker returns to work.

Maintain an active interest in all wage loss claims; do a weekly review, and make the adjudicator aware of any concerns.

2.5 ACTIVITY FIVE - BUILD IN A PERIODIC REVIEW OF YOUR SYSTEM

We will review our system on at least an annual basis to ensure it is working, and make further improvements as required.

This SECTION is based on information provided in the OH&S policy manuals and BC Workers' Compensation - An Employer's Guide To Claims Cost Management written by Grant McMillan and published by Carswell (order from 1-800-387-5164 or email orders@carswell.com).

3 APPLYING CLAIMS COST MANAGEMENT TECHNIQUES

3.1 NEW CLAIMS

3.1.1 ACTIVITY ONE - ACCOMPANY THE WORKER TO MEDICAL TREATMENT FOR SERIOUS INJURIES

Once you have your claims Management program in place, you are ready to begin applying claims cost Management techniques.

A representative of the employer, such as a management person or salaried supervisor, should accompany injured workers to the doctor or medical facility. A representative from us should provide any needed support, demonstrate concern for the worker and should use this opportunity to determine the seriousness of the injury and anticipated claim duration. The physician or other health care staff who assist the worker may be helpful in this regard.

The supervisor may be able to get an initial estimate about the seriousness of the injury and the length of time the worker may be away from work. Some preliminary estimate on a modified return to work may also be obtained. Regardless, the emphasis throughout should be a demonstrated concern for the employee's welfare and condition, and for getting the employee back to work at the earliest safe date.

3.1.2 ACTIVITY TWO - Investigate Injury Occurrences

All workers must report any accident, injury, or near-miss incident to their supervisor, as soon as possible after the event. The supervisor must complete an Accident Report form (Form-

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0002). A brief description of the accident, along with details of the injury sustained, is to be included, along with the names of any witnesses.

If the accident results in medical aid and/or time loss, the injured worker must complete a Form 6A as soon as they are able and submit the form to their supervisor for use in the investigation and copying to head office. The supervisor must also complete a draft Form 7 (Employer's Report of Injury) and send it to head office for Management review, completion and submission to OH&S.

The supervisor must ensure that any and all information applicable to the claim is included with the Form 7. Management should review previous accident investigation records for any indicators of delayed return to work.

Appropriate investigations send a positive message to the workforce - that all incidents or accidents are treated seriously and thoroughly investigated. Claims that are questionable in the early stages tend to become extraordinarily controversial and expensive. A review of investigation records will help identify accident causes, corrective actions, and trends, and help you to determine priorities for change.

Ensure there is a regular follow-up of claims.

3.1.3 ACTIVITY THREE - REPORT THE CLAIM

Employers are required to report to OH&S within three days of its occurrence every injury that is claimed to be arising out of and in the course of employment. Failure to do so may result in an additional assessment against the employer of all claims cost up to three days from receipt of the Employer's Report.

To report an injury, submit the Employer's Report of Injury or Industrial Disease (Form 7). A designated representative of the employer other than the injured worker must sign the Form 7 (ideally, the person responsible for front line claims Management).

Regardless of whether you intend to dispute a claim, the Form 7 must still be completed and submitted within three days. If you have concerns regarding the circumstances of a claim include the statement "WE PROTEST THIS CLAIM" written in large letters across the form. The earlier in the claims process that the employer protests the claim the greater the likelihood of success. If you protest a claim, and the adjudicator determines, after investigation, that the claim should be accepted, they are required to telephone you to discuss the issues and determine if there is additional evidence, which may change their initial decision.

3.1.4 ACTIVITY FOUR - Ensure Earnings Information Provided on Form 7 is Accurate

Payment of wage loss benefits by OH&S is based on the earnings information provided by the employer. If possible, include both the three-month and one year's earnings on the Form 7 to help ensure payment of benefits is not delayed and that the payment is accurate. It also reduces phone calls from OH&S to confirm earnings information.

If additional earnings information, such as three-year and five-year earnings, is required, OH&S will request this information.

3.1.5 ACTIVITY FIVE - PROTEST CLAIMS YOU FIND UNACCEPTABLE

If you think a claim should not be accepted call OH&S and tell the claim adjudicator why. Also note your protest on the Employer's Report of Injury (OH&S Form 7) which is sent to OH&S by writing in large letters across the page, We Protest This Claim.

3.1.6 ACTIVITY SIX - ARRANGE SITE VISITS FOR PROBLEM CLAIMS

If you believe there is a problem with a claim, request a site visit by the OH&S claims adjudicator. An adjudicator's wrong impressions regarding the specifics of an accident occurrence or of the employer's work activities may be able to be cleared up with a site visit.



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Site visits can also be valuable for demonstrating to an adjudicator the proposed activities for a worker participating in a Timely Return to Work Program.

3.1.7 ACTIVITY SEVEN - Show Concern for Injured Workers

Show genuine interest in your injured employees' well being. Call or visit injured employees on a regular basis - support and encouragement do assist in a timely return to work. Staying in touch with the worker keeps you informed of potential problems and lets you plan better for the worker's return to work.

When the injury is a strain, sprain, cut, bruise or other relatively minor injury, set a prearranged time to call the worker to check how they are doing. On long-term claims, follow up once per week at a time when the worker expects your call. This will make you aware of any warning signs, which may result in delayed recovery and return to work.

3.1.8 ACTIVITY EIGHT - CHECK MEDICAL INFORMATION

During the claim process review all medical input from the claimant's doctor and from OH&S's medical adviser, as it becomes available. If you have concerns about specific medical input, seek the opinion of a medical doctor. Do not accept medical "facts" without proper scrutiny.

3.1.9 ACTIVITY NINE - APPEAL WRONG DECISIONS / SUPPORT VALID CLAIMS

Make yourself familiar with OH&S claim policies (It is recommended that you obtain a copy of the Rehabilitation Services and Claims Manual from OH&S). If you disagree with an adjudicator's decision to accept a claim or to keep a worker on wage loss benefits, appeal the decision to the Review Board. Carefully prepare your arguments. If you are a Construction Labor Relations Association member and need assistance, contact us.

If a worker's claim, that you believe is valid, is turned down by OH&S, show support for the worker both at the OH&S and, if necessary, at the Appeal Division and Review Board. You will establish credibility by demonstrating your desire for fair treatment of your employees.

3.1.10 ACTIVITY TEN - TALK TO THE ADJUDICATOR

Wage loss payments are initially based on the worker's earnings at the time of injury. After 8 weeks, OH&S is required to review the wage loss benefits to see if they represent the worker's longer-term earnings pattern. If a worker is likely to be off work for more than 8 weeks, ensure that someone is designated to call the adjudicator to request OH&S to review the worker's earnings history.

If a worker has been with us for the past year, and the earnings history is stable, this call need not be made, as there will be no change in the worker's wage loss payments. If the earnings history is irregular, an assigned person should contact the OH&S adjudicator during week 5 of the wage loss, and provide any available earnings history for previous years.

Subsequent follow-ups with an injured employee beyond the five-week mark are largely a repeat of the initial contact:

- Express concern and sympathy and remind the employee that they are a valued member of the team.
- 2. Inform the worker that we want the employee back as soon as safely possible to their regular job.
- 3. Inform the worker that a timely return to work program is available, if this is the case.
- 4. For lengthy claims, the supervisor should continue to contact the worker on a weekly basis.
- 5. With the worker's approval, his or her doctor should also be contacted regularly.
- 6. Controversial and doubtful claims require closer attention. In these cases:
- 7. The person assigned to complete Form 7 should contact the OH&S claims adjudicator and make the adjudicator aware of any concerns with the claim.



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One week after submitting the Form 7, someone should contact OH&S for the status of the claim. Under some conditions, you may wish to invite the claims adjudicator for a site visit. This should certainly be done if there are questions about such things as the position of the worker relative to the injury source, the exact nature of the work activity or the physical demands of the job.

If a claims adjudicator allows a claim but is disputed by the employer, someone should be assigned to contact OH&S to request a manager's review of the handling of the claim.

If the manager's review does not resolve concerns, someone should be assigned to initiate an appeal to the Review Board, within 90 days of receiving the written decision from the claims adjudicator. (Advisers from both the Employers' Advisers Office at the Ministry of Labor and Construction Labor Relations are available to provide assistance with employer appeals.)

If you are dissatisfied with a Decision of the Review Board it may be appealed to the Appeal Division. (This must be done within 30 days of the written decision of the Review Board. Appeals for medical decisions only, may be made to the Medical Review Panel, within 90 days of the making of a medical decision by a board representative.)

If OH&S disallows a claim and the injured worker decides to appeal the decision, someone should be assigned to ensure there will be a representative from our head office at the appeal.

3.1.11 ACTIVITY ELEVEN - ENCOURAGE WORKERS TO RETURN TO WORK QUICKLY BY MODIFYING JOBS

Implementing timely return to work programs will encourage workers to miss as little work as possible. It is a fact that workers who return to work at the earliest time and who can safely do so, will have the best recovery from their injury.

3.1.12 ACTIVITY TWELVE - MAINTAIN CONTACT WITH WORKER AFTER RETURN TO WORK / WATCH FOR FURTHER PROBLEMS

When the worker returns to work, let them know you are glad they are back and check with them weekly on a regular basis to make sure all is well. Ask the injured worker's supervisor or first aid attendant to let you know if there is any further absence from work or other apparent problems.

3.1.13 ACTIVITY THIRTEEN - ENSURE ADJUDICATOR STAYS INFORMED OF ALL DEVELOPMENTS

Another important responsibility of the supervisor is to continue the contact with the OH&S claims adjudicator. Always treat the adjudicator in a calm, business-like way and keep notes of the dates and substance of your contacts. Contact with OH&S may include the vocational rehabilitation consultant, as well as the claims adjudicator. Both positions have large caseloads, but they are more likely to remember and respond to the needs of your worker if you show ongoing interest and a willingness to assist.

The supervisor should ensure that the adjudicator is aware that we wish to work with the worker and OH&S to get the worker back to productive work as soon as possible.

Try to shorten delays that may keep a worker on a claim longer than necessary. If you know a worker will be returning to work at a certain date, ensure the OH&S adjudicator is aware of this so that wage loss cheques accurately reflect actual lost days.

3.1.14 ACTIVITY FOURTEEN - OBTAIN DISCLOSURE OF FILE

As a result of the Freedom of Information and Protection of Privacy Act, disclosure of a worker's claim file, can now only be obtained from OH&S after an appeal has been initiated (members requiring assistance in initiating an appeal are encouraged to contact CLRA).

During review of the file, it is important to understand some of the general medical issues that may have some bearing on the claim. Ask yourself the following questions about the claim and treatment to flag possible warning signs for later follow-up:

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Are the worker's symptoms consistent over time?

Are the doctors' diagnoses consistent over time?

Are the subjective complaints of pain consistent with objective findings?

What is the normal recovery period for the worker's type of injuries?

Is there evidence of non-work related delaying factors?

Is there evidence of doctor shopping?

Has the worker complied with the doctor's instructions?

Is the worker's condition constant over time?

Are the results of diagnostic tests consistent?

When did treatment end? Were there periods of no treatment or follow up?

Has the level of medication been increasing or decreasing over time?

Are there gaps with no treatment reports?

Once you have reviewed the file, determine whether there are issues that needs appealing. (CLRA can be contacted for assistance at this point). If it is determined that there are no issues to be appealed, inform the OH&S Appeal Division that you will be abandoning the appeal.

3.1.15 ACTIVITY FIFTEEN - TAKE ADVANTAGE OF WCB RELIEF OF COSTS PROVISIONS

Under some circumstances, we may qualify for a relief of costs. Sections of the Workers Compensation Act and Policies provide for cost savings including:

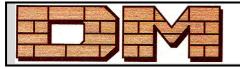
- 1. Where the personal injury or disease is superimposed on an already existing disability, compensation shall be allowed only for the proportion of the disability following the personal injury or disease that may reasonably be attributed to the personal injury or disease. The measure of the disability attributable to the personal injury or disease shall, unless it is otherwise shown, be the amount of the difference between the worker's disability before and disability after the occurrence of the personal injury or disease.
- 2. This section is applied in the calculation of disability pensions where there is a preexisting disability in the area of injury. This section does not provide relief for loss of earnings claims or medical aid claims. Criteria used by OH&S to determine whether or not to apply the section for a disability pension, include:
 - If the injury incident was so serious that a permanent disability would have resulted without the pre-existing disability, cost relief will not be applied.
 - If the injury incident was of moderate or minor effect and x-ray evidence is the only evidence of a pre-existing condition or disease (IE: the worker did not show any previous limitation in ability to work and was not under any ongoing medical care for the condition), cost relief will not apply.
 - If the injury incident was of moderate or minor effect and there is x-ray or other medical evidence, which indicates a moderate to, advanced pre-existing condition or disease, the cost relief Section should be applied.

Before cost relief can be applied, the WCB claims adjudicator must first be aware that there is a preexisting disability. If you are aware of or suspect a previous disability, it is important to bring this to the attention of the adjudicator as it may have an effect on the disability pension amount.

Where the board considers that:

- A substantial amount of compensation has been awarded as a result of the injury or death of the worker; and
- 2. The injury or death was caused or substantially contributed to by a serious breach of duty of care of an employer in another class or subclass,
- 3. The board may order that the compensation be charged, in whole or in section, to the other class or subclass; but the provisions of this subsection do not affect any right

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which an employer may have against another employer arising out of an indemnity agreement or contract made between those employers.

Three conditions are necessary for relief of costs under this Section:

1. First, the amount of compensation must be "substantial".

As of December 1997, the OH&S defines "substantial" as a dollar amount in excess of \$33,656. This amount is changed annually to reflect the change in the Consumer Price Index.

- 2. The second requirement is that there be a "serious breach of duty of care of an employer". OH&S specifies that the cause of the injury must be an act or omission by the employer, not simply by one of that employer's workers. The breach must also be serious in and of itself, not just serious in consequence. A violation of the Occupational Health and Safety Regulation is not necessarily sufficient to trigger the application of this section.
- The third and last requirement is that the other employer must be in another class or subclass. The employer of the injured worker cannot benefit from application of this SECTION if they share the same subclass as the employer that breached their duty of care.

This can be a very difficult section to have applied. If you believe this SECTION may apply, gather your evidence and contact the Ministry of Labor Employer's Advisers Office or Construction Labor Relations for advice.

In fixing the amount of a periodic payment of compensation, consideration shall be given to payments, allowances or benefits which the worker may receive from his employer during the period of his disability, including a pension, gratuity or other allowance provided wholly at the expense of the employer, and a sum deducted under this section from the compensation otherwise payable may be paid to the employer out of the accident fund.

Employers who continue to pay injured workers should check the amount of money OH&S reimburses them to ensure it is accurate.

The OH&S Act and policies provide that OH&S may provide a reserve to be used to meet the loss arising from a disaster or other circumstance which the board considers would unfairly burden the employers in a class.

This cost relief provision is now rarely used due to a recent interpretation by the OH&S Appeal Division which linked the term "disaster" to the "circumstance which the board considers would unfairly burden the employers in a class", with the emphasis placed on the "class".

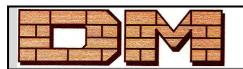
As a result, a disaster must be so substantial that its financial impact adversely affects the entire group of employers in the assessment class. The impact of this definition is that few situations now qualify for relief. OH&S has responded by changing policy so that situations previously specifically covered by this cost relief provision will now be excluded from costs considered for ERA purposes.

The effect of the exclusion is that the employer's ERA rate will not be negatively affected. Cost relief should be sought for:

- 1. Accidents which are substantially due to non-work-related conditions such as epilepsy;
- 2. Claims which are solely due to serious and willful misconduct;
- 3. Permanent disabilities or fatalities resulting from medical treatment;
- 4. Further injury or aggravation resulting from board-sponsored timely return to work programs

Another provision for cost relief empowers OH&S to provide and maintain a reserve for payment of that portion of the disability enhanced by reason of a pre-existing disease, condition or disability. If a pre-existing disease, condition or disability delays recovery beyond 13 weeks of wage loss, cost relief should be applied for and provided.

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3.2 REOPENED CLAIMS

OH&S can decide to re-open an existing claim if the adjudicator determines that a current disability results from an injury or disease that has been accepted under a previous claim. If the adjudicator decides to re-open an old claim, the employer is required to be advised in writing. When you are advised of the adjudicator's decision to re-open a claim, review your records and decide whether you think the decision to re-open is fair. If you disagree with the decision, contact the adjudicator. If the adjudicator does not agree with you, payment to the worker will proceed. You will be advised in writing of the reasons for the decision to re-open the claim and of your rights to appeal.

An appropriate step at this point would be to contact the adjudicator's manager to request an appointment to discuss your case and ask for a managerial review of the adjudicator's decision. Be aware that the injured worker will continue to be paid even though you are appealing the decision.

The Board is required to notify you of any change to a protested or re-opened claim. If the adjudicator pays the worker but fails to notify you, speak with the claims manager.

3.3 DELAYED RETURN CLAIMS

Though most injured workers recover well and return to work in an appropriate time period, there will be a small percentage of claimants who delay their return to work beyond the normal recovery time.

A well-run claims Management program is the best way to ensure all injured workers have a timely return to work. There are indicators, which can help identify whether an employee's return to work may be delayed. If multiple indicators become evident take an active interest in the claim.

Delayed Return Indicators for a claimant:

Was receiving medical attention prior to the injury occurrence,

Missed multiple workdays prior to the injury occurrence,

Was nearing retirement or had expressed concerns about their ability to perform the physical aspects of the job,

Was aware job security was in question (held a temporary or section time position which was insecure, there was an imminent strike, lockout, termination or layoff),

Has initiated claims during the same time period in previous years,

Has previously indicated job dissatisfaction,

Has a history of employment difficulties, inter-personal problems, disruptive behavior, psychological, psychiatric or major personal problems,

Has a family history of disability,

Has injury symptoms that have spread throughout the body even though the original injury was confined to one area,

Indicates pain which persists above and beyond the objective findings of a physician,

Exhibits alcohol/drug abuse symptoms, or their dependency is part of the job site rumor mill

Delayed initiating the claim (especially if a claim is filed after a weekend),

Initiated a Monday morning claim (particularly if early in the shift),

Changes doctors for no apparent reason,

Indicates concern about returning to injury employment; even though there is nothing in the injury which would prevent this,



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Avoids participating in rehabilitation activities or misses treatments,

Is a newly hired worker who may have brought the injury to the job or may have had a pre-existing condition,

Had recently experienced significant marital or family problems,

Exaggerates disability and/or symptoms,

Has a claim file that includes medical reports or information that indicate depression, anxiety, functional overlay, frequent or abnormal use of drugs,

Seeks legal advice even though there is no significant dispute on the claim.

3.3.1 Managing Delayed Return to Work

If you believe a worker is delaying their return to work, contact the adjudicator with a letter and follow-up telephone call. Provide the adjudicator with the evidence you have that supports your concern. OH&S may request that workers who apply for or are in receipt of compensation undergo a medical examination. Claimants that do not attend the examination as requested or obstruct the medical examiner may have their compensation suspended until the examination takes place.

Compensation may be reduced or suspended if a claimant persists in unsanitary or injurious practices which tend to imperil or retard their recovery, or refuses to submit to medical or surgical treatment which the board considers, based on expert medical or surgical advice, is reasonably essential to promote their recovery.

The OH&S Field Investigation section conducts investigations and gathers information to assist claims adjudicators. The field officers do most of their work at the request of a claims adjudicator, who makes the decision on the claim. Contact the adjudicator to request a Field Investigation if you believe the worker is fraudulently obtaining claim benefits.

4 PENSIONS

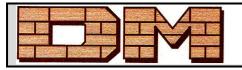
A OH&S doctor will assess workers with a residual permanent partial disability as a result of a work injury and a pension amount will be determined based on the facts of the disability. Each permanent functional disability will be assigned a percentage of total disability. The employer will be notified of the Loss of Function (LOF) pension award and of the lump sum amount paid or of the cash reserve set aside within the accident fund to pay the future costs for the monthly pension.

Where OH&S considers it fairer to award a pension on a loss of earnings (LOE) basis, it may do so. LOE pension entitlement is based on the difference between a worker's earnings at the time of the injury and the actual or expected earnings in suitable employment following the injury.

The differences between costs associated with a LOF pension vs. a LOE pension can be huge. A back injury, for example, may result in a 7% LOF pension. The same injury might result in a 100% LOE pension with resultant costs hundreds of thousands of dollars greater than the LOF pension.

As an employer, you can control pension costs to a significant degree. Work with WorkSafe C to determine if the injured worker can be placed in suitable alternate work with no loss of income. OH&S will determine what jobs are available to the worker and what they pay and then a decision will be made regarding the pension.

In some circumstances a large pension reserve may be established if a worker is considered unable to earn an income at the level of their pre-injury earnings. To avoid this, the employer may find a suitable job for the worker either in the former position or in another position for which the worker is trained or retrained.



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Often it may be best to re-train the worker for some other job in your company - ask the OH&S rehabilitation consultant for advice. This way, the worker keeps his job and the pension amount is reduced because the worker does not suffer the same large loss of earnings. If you disagree with the amount of a disability pension, you can appeal the decision to the Review Board.

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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 OH&S 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. Sub-trade 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: <u>number of disabling injuries x 1,000,000</u> employee hours of exposure

Severity Rate: total number of WCB days charged x 1,000,000

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 intercompany 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:

Total days charged
Total of disabling injuries

Or

Severity rate Frequency rate

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SECURITY, EMERGENCY PREPARATION & COMMUNICATION WITH THE MEDIA

Expect the best, prepare for the worst.

Key Points ☑ Security is important to maintain a safe environment for everyone: workers and the general public

Refer the media to your supervisor

1 SECURITY

Project security prevents loss caused by arson, theft or vandalism. Like safety, security is everyone's responsibility. The importance of a sound security program begins in the estimating stages of a project and includes such matters as:

- 1. Public access and control;
- 2. Employee access:
- 3. Tool, equipment and material control
- 4. Security staff;
- 5. Electronic security;
- 6. Hazards presented by adjacent properties.

The main security concerns should be:

- 1. Protecting employees and the public;
- 2. Guarding against pilferage, vandalism and professional theft;
- 3. Preventing arson.

A prominently displayed list of emergency contact personnel should be maintained should an occurrence require the response of the police or fire departments.

1.1 PUBLIC ACCESS AND CONTROL

Fencing and hoarding is intended to prevent public access and the purpose is twofold: to keep unwanted people off the site and to keep materials and equipment inside the site.

Every project that is fenced or hoarded shall have an identifiable main gate.

Signs directing visitors are important. Typical signs include:

- 1. Restricted Area
- 2. Authorized Persons Only
- 3. Hard Hat Area
- 4. No Trespassing

All visitors must report to the project office prior to going on site.

1.2 LIGHTING

Projects should be adequately lit with night lights on lower floors, storage areas and trailers as a deterrent to theft, mischief or arson and also provides sufficient lighting for safe environments.

13 PARKING

On-site parking is not recommended because it facilitates theft and pilferage. Only authorized vehicles should be allowed on site.

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Please read and think about these guidelines. Keep in mind what you would do in the event of an earthquake in order to mentally condition yourself to remain calm and react correctly.

2 EARTHQUAKE PREPAREDNESS

If you are inside the building:

- 1. Stay calm, drop, cover and hold on.
- 2. Do not attempt to exit the building while the shaking is still occurring.
- 3. Get to a position of safety (i.e. away from objects that can fall on you and away from edges of slabs or floor openings). Sit in an inside corner or other structurally sound point and keep out from under any temporary forms or structures. Do not hesitate, move at once.
- 4. Do not leave your position of safety until the shaking stops. If you have no position of safety, do what you can to protect yourself. Get down in a forward position and hold your hands over your head clasped together to protect your neck. Keep your hard hat on.
- 5. After the shaking has stopped, move to the emergency assembly area shown on the site plan and report your name and any injuries. If you are hurt and unable to move, remain calm to conserve energy and call out for help. Rescue teams will be organized to search for the injured. If on the way to the assembly area you find an injured worker, report the location ASAP. Do not move the injured worker as you can complicate injuries. Move only in life threatening situations. Minimize back and neck movement.

Be aware of aftershocks as you may have to repeat the above.

2.1 BIGGEST DANGERS

During an earthquake to following events pose the biggest hazard to workers on site;

- 1. Falling objects
- 2. Swinging doors and broken windows
- 3. Fires
- 4. Electrical hazards

If you are outdoors:

- 1. If possible, move to an open area.
- 2. Assume a position of safety and keep low.
- 3. Keep out of harms way IE: away from stored materials, trees, mobile equipment, gas or chemical storage, motor vehicles, crew and office trailers or any other objects than can fall and crush you.
- 4. After the shaking has stopped, move to the emergency assembly area and report in with your name and injuries. If you are hurt and unable to move, remain calm to conserve energy and call out for help. As mentioned before, do not move an injured worker, get help.

Be prepared for aftershocks.

2.2 AFTER THE EARTHQUAKE HAS ENDED

- 1. The site superintendent or his designate will ensure:
- 2. Triage and first aid of injured workers has started.
- 3. A head count will be conducted listing the last known location of missing workers
- Rescue teams will be formed to assist the injured and to search for any missing workers.
- 5. If necessary, hazardous utilities gas/electricity will be located and shut off.
- 6. No worker is to leave the site without authorization by the Site Superintendent.

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2.2.1 ADDITIONAL INFORMATION

- 1. Do not leave for home. Power will be out and traffic lights will be also.
- 2. Traffic congestion will occur, people will panic and emergency vehicles will be unable to respond to the injured.
- 3. Have a home plan in advance to give your family its best chance.
- 4. Stay where you are needed until advised by emergency services. If you are not part of the solution, you are part of the problem.
- 5. In case of a major disaster, emergency shelter locations will be broadcast by Emergency Services Radio. At this time the local authorities will be advised on how to contact family members.

3 EMERGENCY PROTOCOLS

3.1 SIGNALS

In case of emergency, First Aid can be summoned by raising the alarm discussed during site orientation.

Site personal and workers are notified of all other emergencies in the manner discussed during site orientation.

Your supervisor can be raised by contacting their cellular phone.

3.2 EVACUATION

Emergency evacuation routes will be identified and reviewed frequently to ensure access remains clear. All routes will be identified on site plans and signage should be posted if the route is through an area which is not accessed regularly by workers.

Workers must only use designated emergency routes when evacuating work areas. No other egress routes are authorized due to the possibility of injury. If a worker uses a route which is not authorized and they become injured we may not find them in a timely manner which could complicate their injury.

3.3 MEDICAL

Every project will have first aid facilities and personnel as specified by the OH&S Regulation. First aid attendant(s) are individually and collectively the front line of first aid for any medical emergency occurring to employees, contract personnel and visitors. First aid for a medical emergency will normally occur at the location of the injured person. If the injured person is mobile, first aid will be performed in the first aid facility.

Immediately report all work-related injuries and diseases to the supervisor and first aid. In the event of a serious accident (fatality or accident resulting in a critical condition with a risk of death), nothing must be removed from or changed at the accident location before a WCB representative has given clearance to do so, except where necessary to facilitate rescue operations or to prevent imminent injury.

3.4 RESCUE

3.4.1 HIGH ANGLE

Rescue from tower cranes or other limited access structures or areas will be done by trained personal only. A high angle rescue agreement will be entered into with the local fire department capable of providing this service.

If high angle rescue services are not available then workers will not be permitted to access work areas that will limit our ability to rescue them unless alternate rescue procedures have been developed.



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3.4.2 USE OF CRANE SUPPORTED MAN BASKET

Part 13.27 of the OH&S Regulation

The use of crane supported man baskets must conform to the following requirements;

See SWP Crane Supported Work Platforms for safe use.

- The weight of a work platform suspended from a crane or hoist or attached to a crane boom and its rigging, plus the rated capacity, must not exceed 50% of the rated capacity of the crane or hoist at the working radius or configuration.
- 2. If a work platform attached to a crane boom causes eccentric loading on the boom,
 - the effect on the rated capacity of the crane must be determined and the rated capacity certified by the crane manufacturer or a professional engineer, and
 - the rated capacity of the crane must be reduced accordingly.
- 3. The boom of a crane used to suspend a work platform must have a powered boom or a fixed boom.
- 4. A work platform must not be
 - suspended from an articulating boom crane
 - attached to an articulating boom crane unless the crane manufacturer approves the installation.
- 5. If workers are on a work platform suspended from a crane, a secondary hoisting line on the crane must not be used.
- Workers inside the work platform will be in full fall arrest and will be anchored above the load block hook at all times while the platform is off the ground.
- 7. Workers are not permitted to leave the work platform while it is suspended unless specific work procedures have been developed for that purpose.
- 8. Communication between the work platform and crane operator must be maintained at all times.

All work platform(s) which will be suspended by cranes must be engineered and the applicable drawing(s) must remain on site throughout the entire duration of use of the platform(s).

3.4.3 USE OF DEP

The DEP will be used only on the authority of the CSO/First Aid attendant. The following points will be followed with regards to the safe use of this equipment;

Refer to SWP DEP for deployment and safe use of a DEP.

- 1. CSO/First Aid attendant must inspect the work platform routinely to ensure that it is in functional condition and that all required equipment is inside the DEP ready for use.
- The DEP is to be positioned on site in an area where it can be reached by all tower cranes. The location of the DEP must not pose a hazard to any worker required to hook it up and fly it.
- 3. Only qualified personal are permitted to use the DEP.
- 4. The DEP is not a work platform.

3.4.4 CONFINED SPACE

Part 9.37 to 9.41 of the OH&S Regulation

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Confined spaces pose a significant risk to workers required to enter them. In the event that a worker is injured inside a confined space rescue will be done by qualified personal only. As much as is reasonable we will call on the applicable emergencies services to assist us with this type of rescue.

Under no circumstances will any worker enter a confined space to rescue a worker unless the situation inside the space is immediately dangerous to life or health. If the atmosphere is dangerous (e.g. oxygen level below 20.9%) no work will enter the space unless equipped with and trained on air supplying equipment.

More details on confined space rescue can be found in the confined space section of our program.

3.4.5 STRUCTURE COLLAPSE

Although unlikely, the collapse of a structure is possible. A more likely scenario would be the collapse of form or falsework. In either case the scene of the collapse must be controlled to prevent any worker from entering. In the event of a structural failure the general evacuation alarm will be sounded and all workers will leave the site and report to the marshalling area.

Supervisors will do a head count and report to the site superintendent the status of their workers. If a worker is missing the supervisor will notify the site superintendent who will coordinate a rescue effort on site.

The rescue party will assess the area of the collapse and determine if it is safe to attempt a rescue. If the area is deemed safe then a survey will be conducted to locate any trapped worker(s). Any shoring required to secure the area will be added as the rescue part progresses. Red danger tape will be placed on either side of the access/egress route to mark the limits where rescue workers can go safely.

The goal of this procedure is to clear a path to the collapsed area so that specialized rescue crews and equipment can access the area safely.

A rescue will be attempted only if the situation is immediately dangerous to life and health.

3.4.6 VEHICLE OR EQUIPMENT (ON SITE)

If there is a vehicle or equipment accident on site where rescue is required the Site Superintendent and CSO will secure the area and all non-essential personal will be asked to leave the area.

It is imperative that the safety of any immediate response personal be assured prior to them approaching the accident scene. This means that any possibility of fire or explosion must be assessed and controlled before workers are permitted to enter.

Any first aid required will be administered by the first aid attendant. If there is an immediate danger to the injured workers life or health it is permissible to move them from the accident scene. For all other situations we will await the arrival of emergency services.

3.5 BOMB THREATS

Most bomb threats are made by telephone to places of employment. When you are prepared for such a call, you can respond in a calm manner, ask for specific information about the bomb and listen for some identifying characteristics of the caller. While on the telephone, you may be able to initiate a trace of the telephone number of the caller, providing vital information about the caller's whereabouts.

When a bomb threat is received:

- 1. Listen.
- 2. Be calm and courteous.
- 3. Do not interrupt the caller.

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- 4. Obtain as much information as possible.
- 5. Initiate call trace action (if available) while the call is ongoing.
- 6. Notify the applicable supervisor while the call is still ongoing. Once notified the supervisor must contact local police.
- 7. Complete Form-0074 and give it to your supervisor.

If you discover or suspect an object to be a bomb;

- 1. Do not touch or move it.
- 2. Notify your supervisor immediately.
- 3. Do not assume that this is the only one.

The procedure to be followed when a bomb threat is received is to evacuate the area and go to the designated muster point for a head count and further instructions. Under no circumstances is any worker permitted to enter an area just evacuated due to a bomb threat.

3.5.1 EVACUATION PROCEDURES

The following points will be followed when evacuating the work area;

- 1. Remain calm. Remember, you have been trained to cope with a bomb threat and you have a plan.
- 2. Follow the instructions of your supervisor.
- 3. Take your personal property such as briefcase, purse and lunch container with you.

3.6 DISGRUNTLED EMPLOYEES

The potential for disgruntled employees, however slight, exists. The associated risks of this situation occurring are important to acknowledge and consider. We do not expect that an employee, or former employee as the case may be, will react in an unpredictable manner but we must ensure we react effectively in the event that it happens.

If a disgruntled employee comes to one of our project sites we must ensure that the situation is controlled so as to prevent the possibility of violence. Under no circumstances is any employee (or former employee) of us or a contractor on site permitted to enter the site if it is obvious they are under stress.

The CSO or Site Superintendent must intervene in any situation which appears to have the potential for violence.

Under no circumstances are the Police to be contacted unless authorized by the Site Superintendent.

All efforts must be made to control the situation and calm all personal involved. Under no circumstances are other workers not directly involved in the situation permitted to become involved. The Site Superintendent and supervisors must clear away all personal and ensure they do not interfere.

4 POWERLINE AWARENESS

The company will endeavor to have powerlines in the work area guarded, rerouted or deenergized prior to commencement of work. The Project Manager, along with the Superintendent, must contact B.C. Hydro to arrange a pre-planning meeting to analyze any potential powerline hazards. Maintaining a safe distance from all electrical conductors is the best way to prevent powerline accidents

The best way to avoid powerline contact is to be aware of where there are powerlines and how close you are to them.

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5 EQUIPMENT TIP-OVER

Equipment tip over is generally not life threatening. For example, if a mobile forklift is being used on site to move wall forms it is possible that it could tip over if the boom is extended out too far and the out riggers are not deployed.

Another example is a boom lift driving in to an opening in the ground which causes the boom lift to flip over.

In both these scenarios the risk of injury will differ. In the tip over of the forklift the risk of injury is minimal. In the flipped over boom lift the risk of injury will be high.

6 COMMUNICATION WITH THE NEWS MEDIA

Should someone on the job site receive requests for information regarding an accident or incident from the news media or other independent persons not directly involved with the work site, they are to direct them to the General Contractor. Under no circumstances shall any worker or supervisor give information whatsoever unless directed to do so.

Simply state that "the matter is under investigation" and refer them as directed above. Be courteous yet firm. Even a statement that "you don't know what's going on" can be unnecessarily damaging to the accident investigation.

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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 the Site Safety Officer.

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.

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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.

List of Safe Work Procedures

Access Ramps and Temporary Stairs	Personal Protective Clothing
Danger Tape	Power Equipment
Electrical Cords, Plugs and Temp. Distribution	Respirators
Elevating Work Platforms	Right to Refuse Work
Emergency Procedures	Silica Disposal
Fall Protection Requirements	Small Power Tools
First Aid Procedures	Sprains and Strains
Garbage Boxes	Traffic Control
Grinding	WHMIS
Guardrails	Winter Work
Hand Tools (Non-powered)	Working with Tools – Cut Off Saw
Handrails	Working with Tools – Demolition Hammer
Heavy Equipment (Working around)	Working with Tools – Drills
Housekeeping	Working with Tools – Grinders
Impaired Workers	Working with Tools – Hammer Drills
Job Specific Training	Working with Tools – Powder Actuated
Ladders	Working with Tools – Saws
Lighting	Working with Tools – Wet Dry Masonry Saw
Loading and Unloading Vehicles	

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